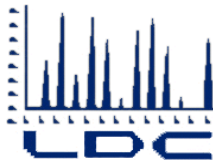


## **ATTACHMENT 2: DATA VALIDATION REPORTS**

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This attachment contains the data validation reports performed by an independent subcontractor, Laboratory Data Consultants, Inc. (LDC) of Carlsbad, California.



## LABORATORY DATA CONSULTANTS, INC.

2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

Tidewater, Inc.  
3761 Attucks Drive  
Powell, OH 43065  
ATTN: Mr. David Conner

December 19, 2018

SUBJECT: NASA JPL, 4Q2018, Data Validation

Dear Mr. Conner,

Enclosed are the final validation reports for the fractions listed below. These SDGs were received on November 19, 2018. Attachment 1 is a summary of the samples that were reviewed for each analysis.

### LDC Project #43719:

<u>SDG #</u>	<u>Fraction</u>
1832484, 1832621	Volatiles, Chromium, Wet Chemistry

The data validation was performed under Level III & IV guidelines. The analyses were validated using the following documents, as applicable to each method:

- USEPA National Functional Guidelines for Organic Superfund Methods Data Review; January 2017
- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review; January 2017
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007, update V, July 2014

Please feel free to contact us if you have any questions.

Sincerely,

Pei Geng  
Project Manager/Senior Chemist

EDD 90/10 (client select)

**LDC #43719 (Tidewater- Powell, OH / NASA JPL, 4Q2018)**

LDC	SDG#	DATE REC'D	(3) DATE DUE	VOA (524.2)		Cr (200.8)		CLO <sub>2</sub> (314.0)		Cr(VI) (7196)																										
Matrix: Water/Soil				W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	
A	1832484	11/19/18	12/13/18	12	0	11	0	11	0	11	0																									
A	1832484	11/19/18	12/13/18	1	0	1	0	1	0	1	0																									
B	1832621	11/19/18	12/13/18	10	0	9	0	9	0	9	0																									
B	1832621	11/19/18	12/13/18	1	0	1	0	1	0	1	0																									
Total	J/PG			24	0	22	0	22	0	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	90

Shaded cells indicate Level IV validation (all other cells are Level III validation). These sample counts do not include MS/MSD, and DUPs

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** NASA JPL, 4Q2018

**LDC Report Date:** December 13, 2018

**Parameters:** Volatiles

**Validation Level:** Level III & IV

**Laboratory:** BC Laboratories, Inc.

**Sample Delivery Group (SDG):** 1832484

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
TB-1-101518	1832484-01	Water	10/15/18
MW-20-5	1832484-02	Water	10/15/18
MW-20-4	1832484-03	Water	10/15/18
MW-20-3	1832484-04	Water	10/15/18
MW-20-2	1832484-05	Water	10/15/18
MW-19-5	1832484-06	Water	10/15/18
DUP-1-4Q18	1832484-07	Water	10/15/18
MW-19-4	1832484-08	Water	10/15/18
MW-19-3**	1832484-09**	Water	10/15/18
MW-19-2	1832484-10	Water	10/15/18
MW-19-1	1832484-11	Water	10/15/18
EB-1-101518	1832484-12	Water	10/15/18
SB-1-101518	1832484-13	Water	10/15/18
MW-20-3MS	1832484-04MS	Water	10/15/18
MW-20-3MSD	1832484-04MSD	Water	10/15/18

\*\*Indicates sample underwent Level IV validation



## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) Method 524.2

All sample results were subjected to Level III data validation, which comprises an evaluation of quality control (QC) summary results. Samples appended with a double asterisk on the cover page were subjected to Level IV evaluation, which is comprised of the QC summary forms as well as the raw data, to confirm sample quantitation and identification.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated due to non-conformances discovered during data validation.
- U (Non-detected): The compound or analyte was analyzed for and positively identified by the laboratory; however the compound or analyte should be considered non-detected at the reported concentration due to the presence of contaminants detected in the associated blank(s).
- UJ (Non-detected estimated): The compound or analyte was reported as not detected by the laboratory; however the reported quantitation/detection limit is estimated due to non-conformances discovered during data validation.
- R (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

## III. Initial Calibration and Initial Calibration Verification

An initial calibration was performed as required by the method.

For compounds where average relative response factors (RRFs) were utilized, the percent relative standard deviations (%RSD) were less than or equal to 20.0%

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination ( $r^2$ ) were greater than or equal to 0.990.

Average relative response factors (RRF) for all compounds were within validation criteria.

The percent differences (%D) of the initial calibration verification (ICV) standard were less than or equal to 30.0% for all compounds with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
10/14/18	Pentachloroethane	36.1	All samples in SDG 1832484	UJ (all non-detects)	P

## IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

The percent differences (%D) were less than or equal to 30.0% for all compounds with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
10/21/18 (12Oct02)	Hexachloroethane	36.0	All samples in SDG 1832484	UJ (all non-detects)	P

Date	Compound	%D	Associated Samples	Flag	A or P
10/21/18 (12Oct03)	tert-Amyl methyl ether trans-1,4-Dichloro-2-butene Ethyl tert-butyl ether Pentachloroethane	34.8 50.1 36.9 126	All samples in SDG 1832484	UJ (all non-detects) UJ (all non-detects) UJ (all non-detects) UJ (all non-detects)	P

## V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## VI. Field Blanks

Sample TB-1-101518 was identified as a trip blank. No contaminants were found.

Sample EB-1-101518 was identified as an equipment blank. No contaminants were found with the following exceptions:

Blank ID	Compound	Concentration
EB-1-101518	Chloroform	0.25 ug/L

Sample SB-1-101518 was identified as an equipment blank. No contaminants were found with the following exceptions:

Blank ID	Compound	Concentration
SB-1-101518	Chloroform	0.21 ug/L

## VII. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## VIII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## IX. Laboratory Control Samples

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## X. Field Duplicates

Samples MW-19-5 and DUP-1-4Q18 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/L)		RPD
	MW-19-5	DUP-1-4Q18	
Bromodichloromethane	0.24	0.24	0
Chloroform	2.1	2.0	5

## XI. Internal Standards

All internal standard areas and retention times were within QC limits.

## XII. Compound Quantitation

All compound quantitations met validation criteria for samples which underwent Level IV validation. Raw data were not reviewed for Level III validation.

## XIII. Target Compound Identifications

All target compound identifications met validation criteria for samples which underwent Level IV validation. Raw data were not reviewed for Level III validation.

## XIV. System Performance

The system performance was acceptable for samples which underwent Level IV validation. Raw data were not reviewed for Level III validation.

## XV. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to ICV and continuing calibration %D, data were qualified as estimated in thirteen samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the data validation all other results are considered valid and usable for all purposes.

**NASA JPL, 4Q2018  
Volatiles - Data Qualification Summary - SDG 1832484**

Sample	Compound	Flag	A or P	Reason
TB-1-101518 MW-20-5 MW-20-4 MW-20-3 MW-20-2 MW-19-5 DUP-1-4Q18 MW-19-4 MW-19-3** MW-19-2 MW-19-1 EB-1-101518 SB-1-101518	Pentachloroethane	UJ (all non-detects)	P	Initial calibration verification (%D)
TB-1-101518 MW-20-5 MW-20-4 MW-20-3 MW-20-2 MW-19-5 DUP-1-4Q18 MW-19-4 MW-19-3** MW-19-2 MW-19-1 EB-1-101518 SB-1-101518	Hexachloroethane tert-Amyl methyl ether trans-1,4-Dichloro-2-butene Ethyl tert-butyl ether Pentachloroethane	UJ (all non-detects) UJ (all non-detects) UJ (all non-detects) UJ (all non-detects) UJ (all non-detects)	P	Continuing calibration (%D)

**NASA JPL, 4Q2018  
Volatiles - Laboratory Blank Data Qualification Summary - SDG 1832484**

No Sample Data Qualified in this SDG

LDC #: 43719A1  
 SDG #: 1832484  
 Laboratory: BC Laboratories, Inc.

**VALIDATION COMPLETENESS WORKSHEET**  
 Level III/IV

Date: 12/12/18  
 Page: 1 of 2  
 Reviewer: [Signature]  
 2nd Reviewer: [Signature]

**METHOD:** GC/MS Volatiles (EPA Method 524.2)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	GC/MS Instrument performance check	A	
III.	Initial calibration/ICV	A, SW	ICAL $\leq 30\%$ r7 ICV $\leq 30\%$
IV.	Continuing calibration	SW	CV $\leq 30\%$
V.	Laboratory Blanks	A	x
VI.	Field blanks	SW	TB = 1 EB = 12 SB = 13
VII.	Surrogate spikes	A	
VIII.	Matrix spike/Matrix spike duplicates	NA	
IX.	Laboratory control samples	A	LCS
X.	Field duplicates	SW	D = 6/7
XI.	Internal standards	A	
XII.	Compound quantitation RL/LOQ/LODs	A	Not reviewed for Level III validation
XIII.	Target compound identification	A	Not reviewed for Level III validation
XIV.	System performance	A	Not reviewed for Level III validation
XV.	Overall assessment of data	A	

Note: A = Acceptable      X ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

\*\* Indicates sample underwent Level IV validation

	Client ID	Lab ID	Matrix	Date
1	TB-1-101518	1832484-01	Water	10/15/18
2	MW-20-5	1832484-02	Water	10/15/18
3	MW-20-4	1832484-03	Water	10/15/18
4	MW-20-3	1832484-04	Water	10/15/18
5	MW-20-2	1832484-05	Water	10/15/18
6	MW-19-5	1832484-06	Water	10/15/18
7	DUP-1-4Q18	1832484-07	Water	10/15/18
8	MW-19-4	1832484-08	Water	10/15/18
9	MW-19-3**	1832484-09**	Water	10/15/18
10	MW-19-2	1832484-10	Water	10/15/18
11	MW-19-1	1832484-11	Water	10/15/18
12	EB-1-101518	1832484-12	Water	10/15/18
13	SB-1-101518	1832484-13	Water	10/15/18

LDC #: 43719A1  
SDG #: 1832484  
Laboratory: BC Laboratories, Inc.

**VALIDATION COMPLETENESS WORKSHEET**  
Level III/IV

Date: 12/12/18  
Page: 2 of 2  
Reviewer: [Signature]  
2nd Reviewer: [Signature]

**METHOD:** GC/MS Volatiles (EPA Method 524.2)

	Client ID	Lab ID	Matrix	Date
14	MW-20-3MS	1832484-04MS	Water	10/15/18
15	MW-20-3MSD	1832484-04MSD	Water	10/15/18
16				
17				
18				

Notes:

7	2027891-BU1								

**VALIDATION FINDINGS CHECKLIST**

**Method:** Volatiles (EPA Method 524.2)

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
Were all technical holding times met?	/			
Was cooler temperature criteria met?	/			
<b>II. GC/MS Instrument performance check</b>				
Was a tune check performed prior to establishing and/or re-establishing an initial calibration?	/			
Were the BFB performance results reviewed and found to be within the specified criteria?	/			
<b>III. Initial calibration</b>				
Did the laboratory perform at least 5 point calibration prior to sample analysis?	/			
Were all percent relative standard deviations (%RSD) < 20%?	/			
<b>IIIa. Initial Calibration Verification calibration</b>				
Was an initial calibration verification standard analyzed after each initial calibration for each instrument?	/			
Were all percent differences (%D) < 30%?		/		
<b>IV. Continuing calibration</b>				
Was a continuing calibration standard analyzed at the beginning of each analysis batch?	/			
Were all percent differences (%D) of continuing calibration < 30%?		/		
<b>V. Laboratory Blanks</b>				
Was a laboratory blank associated with every sample in this SDG?	/			
Was a laboratory blank analyzed with each analysis batch?	/			
Was there contamination in the laboratory blanks? If yes, please see the Blanks validation completeness worksheet?		/		
<b>VI. Field blanks</b>				
Were field blanks identified in this SDG?	/			
Were target compounds detected in the field blanks?	/			
<b>VII. Surrogate spikes</b>				
Were all surrogate %R within the QC limits?	/			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			/	
<b>VIII. Matrix spike/Matrix spike duplicates</b>				
Was a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for this SDG?	/			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	/			
<b>IX. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	/			



LDC #: 4379A1

**VALIDATION FINDINGS CHECKLIST**

Page: 2 of 2  
 Reviewer: JVF  
 2nd Reviewer: QF

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per analytical batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) within 70-130%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>X. Field duplicates</b>				
Were field duplicate pairs identified in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were target compounds detected in the field duplicates?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XI. Internal standards</b>				
Were internal standard area counts within +/-30% of the area of the most recent continuing calibration standard and +/-50% of the average peak area in the initial calibration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were retention times within +/-30 seconds of the associated calibration standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XII. Compound quantitation/CRQLs</b>				
Did the laboratory LOQs/RLs meet the QAPP LOQs/RLs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) or regression equations used to quantitate the compound?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIII. Target compound identification</b>				
Were relative retention times (RRT's) within + 0.06 RRT units of the standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were chromatogram peaks verified and accounted for?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIV. System performance</b>				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XV. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

## TARGET COMPOUND WORKSHEET

### METHOD: VOA

A. Chloromethane	AA. Tetrachloroethene	AAA. 1,3,5-Trimethylbenzene	AAAA. Ethyl tert-butyl ether	A1. 1,3-Butadiene	A2.
B. Bromomethane	BB. 1,1,2,2-Tetrachloroethane	BBB. 4-Chlorotoluene	BBBB. tert-Amyl methyl ether	B1. Hexane	B2.
C. Vinyl chloride	CC. Toluene	CCC. tert-Butylbenzene	CCCC. 1-Chlorohexane	C1. Heptane	C2.
D. Chloroethane	DD. Chlorobenzene	DDD. 1,2,4-Trimethylbenzene	DDDD. Isopropyl alcohol	D1. Propylene	D2.
E. Methylene chloride	EE. Ethylbenzene	EEE. sec-Butylbenzene	EEEE. Acetonitrile	E1. Freon 11	E2.
F. Acetone	FF. Styrene	FFF. 1,3-Dichlorobenzene	FFFF. Acrolein	F1. Freon 12	F2.
G. Carbon disulfide	GG. Xylenes, total	GGG. p-Isopropyltoluene	GGGG. Acrylonitrile	G1. Freon 113	G2.
H. 1,1-Dichloroethene	HH. Vinyl acetate	HHH. 1,4-Dichlorobenzene	HHHH. 1,4-Dioxane	H1. Freon 114	H2.
I. 1,1-Dichloroethane	II. 2-Chloroethylvinyl ether	III. n-Butylbenzene	IIII. Isobutyl alcohol	I1. 2-Nitropropane	I2.
J. 1,2-Dichloroethene, total	JJ. Dichlorodifluoromethane	JJJ. 1,2-Dichlorobenzene	JJJJ. Methacrylonitrile	J1. Dimethyl disulfide	J2.
K. Chloroform	KK. Trichlorofluoromethane	KKK. 1,2,4-Trichlorobenzene	KKKK. Propionitrile	K1. 2,3-Dimethyl pentane	K2.
L. 1,2-Dichloroethane	LL. Methyl-tert-butyl ether	LLL. Hexachlorobutadiene	LLLL. Ethyl ether	L1. 2,4-Dimethyl pentane	L2.
M. 2-Butanone	MM. 1,2-Dibromo-3-chloropropane	MMM. Naphthalene	MMMM. Benzyl chloride	M1. 3,3-Dimethyl pentane	M2.
N. 1,1,1-Trichloroethane	NN. Methyl ethyl ketone	NNN. 1,2,3-Trichlorobenzene	NNNN. Iodomethane	N1. 2-Methylpentane	N2.
O. Carbon tetrachloride	OO. 2,2-Dichloropropane	OOO. 1,3,5-Trichlorobenzene	OOOO. 1,1-Difluoroethane	O1. 3-Methylpentane	O2.
P. Bromodichloromethane	PP. Bromochloromethane	PPP. trans-1,2-Dichloroethene	PPPP. Tetrahydrofuran	P1. 3-Ethylpentane	P2.
Q. 1,2-Dichloropropane	QQ. 1,1-Dichloropropene	QQQ. cis-1,2-Dichloroethene	QQQQ. Methyl acetate	Q1. 2,2-Dimethylpentane	Q2.
R. cis-1,3-Dichloropropene	RR. Dibromomethane	RRR. m,p-Xylenes	RRRR. Ethyl acetate	R1. 2,2,3-Trimethylbutane	R2.
S. Trichloroethene	SS. 1,3-Dichloropropane	SSS. o-Xylene	SSSS. Cyclohexane	S1. 2,2,4-Trimethylpentane	S2.
T. Dibromochloromethane	TT. 1,2-Dibromoethane	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	TTTT. Methylcyclohexane	T1. 2-Methylhexane	T2.
U. 1,1,2-Trichloroethane	UU. 1,1,1,2-Tetrachloroethane	UUU. 1,2-Dichlorotetrafluoroethane	UUUU. Allyl chloride	U1. Nonanal	U2.
V. Benzene	VV. Isopropylbenzene	VVV. 4-Ethyltoluene	VVVV. Methyl methacrylate	V1. 2-Methylnaphthalene	V2.
W. trans-1,3-Dichloropropene	WW. Bromobenzene	WWW. Ethanol	WWWW. Ethyl methacrylate	W1. Methanol	W2.
X. Bromoform	XX. 1,2,3-Trichloropropane	XXX. Di-isopropyl ether	XXXX. cis-1,4-Dichloro-2-butene	X1. 1,2,3-Trimethylbenzene	X2.
Y. 4-Methyl-2-pentanone	YY. n-Propylbenzene	YYY. tert-Butanol	YYYY. trans-1,4-Dichloro-2-butene	Y1. <i>Hexachloroethane</i>	Y2.
Z. 2-Hexanone	ZZ. 2-Chlorotoluene	ZZZ. tert-Butyl alcohol	ZZZZ. Pentachloroethane	Z1.	Z2.

LDC #: Q3719 A

### VALIDATION FINDINGS WORKSHEET Initial Calibration Verification

Page: 1 of 1

Reviewer: JVG

2nd Reviewer: [Signature]

**METHOD:** GC/MS VOA (EPA Method 524.2)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

~~N~~ N/A Was an initial calibration verification standard analyzed after each ICAL for each instrument?

~~N~~ N/A Were all %D within the validation criteria of  $\leq 30$  %D?

#	Date	Standard ID	Compound	Finding %D (Limit: $\leq 30.0\%$ )	Associated Samples	Qualifications
	<u>10/18/18</u>	<u>14 Oct 27</u>	<u>ZZZZ</u>	<u>36.1</u>	<u>All (ND)</u>	<u>J/NJ P</u>

LDC #: 43719 A)

### VALIDATION FINDINGS WORKSHEET

Continuing Calibration

Page: 1 of 1  
Reviewer: JVG  
2nd Reviewer: *[Signature]*

**METHOD:** GC/MS VOA (EPA Method 524.2)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?

Y N N/A Were all percent differences (%D) < 30% ?

#	Date	Standard ID	Compound	Finding %D (Limit: <30.0%)	Associated Samples	Qualifications
	10/21/18	210ct02	Y1	36.0	All (ND)	J/US/P
		210ct03	BBBB	34.8	↓	↓
			YYYY	50.1	↓	↓
			AAAA	36.9	↓	↓
			ZZZZ	126	↓	↓

LDC #: 43719 A1

### VALIDATION FINDINGS WORKSHEET Field Blanks

Page: 1 of 1

Reviewer: JVG  
2nd Reviewer: [Signature]

METHOD: GC/MS VOA (EPA Method 524.2)

Y N N/A Were field blanks identified in this SDG?  
Y N N/A Were target compounds detected in the field blanks?

Blank units: ug/L Associated sample units: ug/L

Sampling date: \_\_\_\_\_

Field blank type: (circle one) Field Blank / Rinsate / Trip Blank / Other: \_\_\_\_\_ Associated Samples: All except 1, 12, 13, 14

Compound	EB Blank ID	SB	Sample Identification						
	<u>12</u>	<u>13</u>	<del>5</del>	<del>8</del>	<del>9</del>				
<u>K</u>	<u>0.25</u>	<u>0.21</u>	<del>0.22 / U</del>	<del>0.35 / U</del>	<del>0.34 / U</del>				

Blank units: \_\_\_\_\_ Associated sample units: \_\_\_\_\_

Sampling date: \_\_\_\_\_

Field blank type: (circle one) Field Blank / Rinsate / Trip Blank / Other: \_\_\_\_\_ Associated Samples: \_\_\_\_\_

Compound	Blank ID	Sample Identification						

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:  
Common contaminants such as Methylene chloride, Acetone, 2-Butanone and Carbon disulfide that were detected in samples within ten times the associated field blank concentration were qualified as not detected, "U". Other contaminants within five times the field blank concentration were also qualified as not detected, "U".

LDC #: 43719 A1

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

Page: 1 of 1  
Reviewer: JVG  
2nd reviewer: [Signature]

**METHOD:** GC/MS VOA (EPA Method 524.2)

N N/A Were field duplicate pairs identified in this SDG?  
 N N/A Were target compounds detected in the field duplicate pairs?

Compound	Concentration ( ug/L )		RPD ( <del>≤</del> %)
	6	7	
P	0.24	0.24	0
K	2.1	2.0	5

**VALIDATION FINDINGS WORKSHEET**  
**Initial Calibration Calculation Verification**

METHOD: GC/MS VOA (EPA Method 524.2)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$$RRF = (A_x)(C_{is}) / (A_{is})(C_x)$$

average RRF = sum of the RRFs/number of standards

$$\%RSD = 100 * (S/X)$$

$A_x$  = Area of Compound

$C_x$  = Concentration of compound,

S = Standard deviation of the RRFs,

$A_{is}$  = Area of associated internal standard

$C_{is}$  = Concentration of internal standard

X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (IS)	Reported RRF (RRF 10 std)	Recalculated RRF (RRF 10 std)	Reported Average RRF (Initial)	Recalculated Average RRF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL MS V5	10/14/18	Chloroform (IS1)	0.711076	0.711076	0.744018	0.744018	6.998	6.998
			Trichloroethene (IS2)	0.352504	0.352504	0.360242	0.360242	9.716	9.716
			Ethylbenzene (IS3)	1.842402	1.842402	1.833670	1.833670	11.995	11.995

**VALIDATION FINDINGS WORKSHEET**  
**Continuing Calibration Results Verification**

METHOD: GC/MS VOA (EPA Method 524.2)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

$$\% \text{ Difference} = 100 * (\text{ave. RRF} - \text{RRF}) / \text{ave. RRF}$$

$$\text{RRF} = (\text{Ax})(\text{Cis}) / (\text{Ais})(\text{Cx})$$

Where:

ave. RRF = initial calibration average RRF

RRF = continuing calibration RRF

Ax = Area of compound,

Cx = Concentration of compound,

Ais = Area of associated internal standard

Cis = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (IS)	Average RRF (Initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported % D	Recalculated %D
1	21OCT02 MS V5	10/21/18	Chloroform (IS1)	0.744018	0.717107	0.717107	3.6	3.6
			Trichloroethene (IS2)	0.360242	0.343906	0.343906	4.5	4.5
			Ethylbenzene (IS3)	1.833670	1.722582	1.722582	6.1	6.1



LDC #: 93719 A1

## VALIDATION FINDINGS WORKSHEET Surrogate Results Verification

Page: 1 of 1  
Reviewer: JVG  
2nd reviewer:           

**METHOD:** GC/MS VOA (EPA Method 524.2)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS \* 100

Where: SF = Surrogate Found  
SS = Surrogate Spiked

Sample ID: # 9

	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
			Reported	Recalculated	
Toluene-d8	10.0	10.15	102	102	0
Bromofluorobenzene	↓	9.48	948	948	↓
1,2-Dichlorobenzene-d4	↓	8.54	85.4	85.4	↓
Dibromofluoromethane					

Sample ID: \_\_\_\_\_

	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
			Reported	Recalculated	
Toluene-d8					
Bromofluorobenzene					
1,2-Dichlorobenzene-d4					
Dibromofluoromethane					

Sample ID: \_\_\_\_\_

	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
			Reported	Recalculated	
Toluene-d8					
Bromofluorobenzene					
1,2-Dichlorobenzene-d4					
Dibromofluoromethane					

Sample ID: \_\_\_\_\_

	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
			Reported	Recalculated	
Toluene-d8					
Bromofluorobenzene					
1,2-Dichlorobenzene-d4					
Dibromofluoromethane					

LDC #: 43719 A1

## VALIDATION FINDINGS WORKSHEET Matrix Spike/Matrix Spike Duplicates Results Verification

Page: 1 of 1  
Reviewer: JYG  
2nd Reviewer: [Signature]

**METHOD:** GC/MS VOA (EPA Method 524.2)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery =  $100 * (SSC - SC) / SA$

Where: SSC = Spiked sample concentration  
SA = Spike added

SC = Sample concentration

RPD =  $|MSC - MSDC| * 2 / (MSC + MSDC)$

MSC = Matrix spike percent recovery

MSDC = Matrix spike duplicate percent recovery

MS/MSD sample: 14 / 15

Compound	Spike Added (ug/L)		Sample Concentration (ug/L)	Spiked Sample Concentration (ug/L)		Matrix Spike		Matrix Spike Duplicate		MS/MSD	
	MS	MSD		MS	MSD	Percent Recovery		Percent Recovery		RPD	
						Reported	Recalc	Reported	Recalc	Reported	Recalc
1,1-Dichloroethene	25.0	25.0	0	27.10	27.37	108	108	109	109	0.991	0.99
Trichloroethene	↓	↓	↓	24.17	24.62	96.7	96.7	98.5	98.5	1.84	2.84
Benzene	↓	↓	↓	25.76	26.64	103	103	107	107	3.36	3.36
Toluene	↓	↓	↓	24.84	25.16	99.9	99.4	101	101	1.28	1.28
Chlorobenzene	↓	↓	↓	24.15	24.40	96.6	96.6	97.6	97.6	1.09	1.09

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 43719A1

## VALIDATION FINDINGS WORKSHEET Laboratory Control Sample Results Verification

Page: 1 of 1

Reviewer: JYG

2nd Reviewer: [Signature]

**METHOD:** GC/MS VOA (EPA Method 524.2)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate (if applicable) were recalculated for the compounds identified below using the following calculation:

% Recovery =  $100 * SSC/SA$

Where: SSC = Spiked sample concentration  
SA = Spike added

RPD =  $|LCS - LCSD| * 2 / (LCS + LCSD)$

LCS = Laboratory control sample percent recovery

LCSD = Laboratory control sample duplicate percent recovery

LCS ID: B027891-BS1

Compound	Spike Added (ug/L)		Spiked Sample Concentration (ug/L)		LCS		LCSD		LCS/LCSD	
	LCS	LCSD	LCS	LCSD	Percent Recovery		Percent Recovery		RPD	
					Reported	Recalc	Reported	Recalc	Reported	Recalculated
1,1-Dichloroethene	25.0	NA	26.16	NA	105	105				
Trichloroethene	↓	↓	24.07	↑	96.1	96.1				
Benzene	↓	↓	25.32	↑	101	101				
Toluene	↓	↓	24.43	↓	97.7	97.7				
Chlorobenzene	↓	↓	23.47	↓	93.7	93.7				

Comments: Refer to Laboratory Control Sample findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 43719A1

### VALIDATION FINDINGS WORKSHEET Sample Calculation Verification

Page: 1 of 1  
Reviewer: JVG  
2nd reviewer:

**METHOD:** GC/MS VOA (EPA Method 524.2)

Compound results reported with a positive detect were recalculated and verified using the following equation:

$$\text{Concentration} = \frac{(A_x)(I_s)(DF)}{(A_{is})(RRF)(V_o)(\%S)}$$

$A_x$  = Area of the characteristic ion (EICP) for the compound to be measured

$A_{is}$  = Area of the characteristic ion (EICP) for the specific internal standard

$I_s$  = Amount of internal standard added in nanograms (ng)

RRF = Relative response factor of the calibration standard.

$V_o$  = Volume or weight of sample purged in milliliters (ml) or grams (g).

Df = Dilution factor.

%S = Percent solids, applicable to soils and solid matrices only.

Example:

Sample I.D. 9, K:

$$\text{Conc.} = \frac{(31083)(10.0)}{(748587)(6.744018)} = 1.68 \text{ ug/L}$$

#	Sample ID	Compound	Reported Concentration (ug/L)	Calculated Concentration ( )	Acceptable (Y/N)
			1.7		

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** NASA JPL, 4Q2018

**LDC Report Date:** December 10, 2018

**Parameters:** Chromium

**Validation Level:** Level III & IV

**Laboratory:** BC Laboratories, Inc.

**Sample Delivery Group (SDG):** 1832484

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-20-5	1832484-02	Water	10/15/18
MW-20-4	1832484-03	Water	10/15/18
MW-20-3	1832484-04	Water	10/15/18
MW-20-2	1832484-05	Water	10/15/18
MW-19-5	1832484-06	Water	10/15/18
DUP-1-4Q18	1832484-07	Water	10/15/18
MW-19-4	1832484-08	Water	10/15/18
MW-19-3**	1832484-09**	Water	10/15/18
MW-19-2	1832484-10	Water	10/15/18
MW-19-1	1832484-11	Water	10/15/18
EB-1-101518	1832484-12	Water	10/15/18
SB-1-101518	1832484-13	Water	10/15/18
MW-20-3MS	1832484-04MS	Water	10/15/18
MW-20-3MSD	1832484-04MSD	Water	10/15/18
MW-20-3DUP	1832484-04DUP	Water	10/15/18

\*\*Indicates sample underwent Level IV validation

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with a modified outline of the USEPA National Functional Guidelines (NFG) for Inorganic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Chromium by Environmental Protection Agency (EPA) Method 200.8

All sample results were subjected to Level III data validation, which comprises an evaluation of quality control (QC) summary results. Samples appended with a double asterisk on the cover page were subjected to Level IV data validation, which is comprised of the QC summary forms as well as the raw data, to confirm sample quantitation and identification.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated due to non-conformances discovered during data validation.
- U (Non-detected): The compound or analyte was analyzed for and positively identified by the laboratory; however the compound or analyte should be considered non-detected at the reported concentration due to the presence of contaminants detected in the associated blank(s).
- UJ (Non-detected estimated): The compound or analyte was reported as not detected by the laboratory; however the reported quantitation/detection limit is estimated due to non-conformances discovered during data validation.
- R (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

### I. Sample Receipt and Technical Holding Times

All samples were received in good condition.

All technical holding time requirements were met.

### II. ICPMS Tune

The mass calibration was within 0.1 AMU and the percent relative standard deviation (%RSD) was less than or equal to 5%.

### III. Instrument Calibration

Initial and continuing calibrations were performed as required by the method.

The initial calibration verification (ICV) and continuing calibration verification (CCV) standards were within QC limits.

### IV. ICP Interference Check Sample Analysis

ICP interference check sample analysis data were not required by the method.

### V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

### VI. Field Blanks

Sample EB-1-101518 was identified as an equipment blank. No contaminants were found with the following exceptions:

Blank ID	Analyte	Concentration
EB-2-101618	Chromium	0.77 ug/L

Sample SB-1-101518 was identified as a source blank. No contaminants were found with the following exceptions:

Blank ID	Analyte	Concentration
SB-1-101518	Chromium	0.62 ug/L

## VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## VIII. Duplicate Sample Analysis

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## IX. Serial Dilution

Serial dilution analysis was performed on an associated project sample. Percent differences (%D) were within QC limits.

## X. Laboratory Control Samples

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## XI. Field Duplicates

Samples MW-19-5 and DUP-1-4Q18 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Analyte	Concentration (ug/L)		RPD
	MW-19-5	DUP-1-4Q18	
Chromium	1.9	1.8	5

## XII. Internal Standards (ICP-MS)

All internal standard percent recoveries (%R) were within QC limits for samples which underwent Level IV validation. Raw data were not reviewed for Level III validation.

## XIII. Sample Result Verification

All sample result verifications were acceptable for samples which underwent Level IV validation. Raw data were not reviewed for Level III validation.

## XIV. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

The quality control criteria reviewed were met and are considered acceptable. Based upon the data validation all results are considered valid and usable for all purposes.



**NASA JPL, 4Q2018  
Chromium - Data Qualification Summary - SDG 1832484**

No Sample Data Qualified in this SDG

**NASA JPL, 4Q2018  
Chromium - Laboratory Blank Data Qualification Summary - SDG 1832484**

No Sample Data Qualified in this SDG

LDC #: 43719A4a

## VALIDATION COMPLETENESS WORKSHEET

Date: 12-3-18

SDG #: 1832484

Level III/IV

Page: 1 of 2

Laboratory: BC Laboratories, Inc.

Reviewer: MG

2nd Reviewer: [Signature]

**METHOD:** Chromium(EPA Method 200.8)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A	
II.	ICP/MS Tune	A	
III.	Instrument Calibration	A	
IV.	ICP Interference Check Sample (ICS) Analysis	N	not required
V.	Laboratory Blanks	A	
VI.	Field Blanks	SW	EB = 11, SB = 12
VII.	Matrix Spike/Matrix Spike Duplicates	A	MS/MSD
VIII.	Duplicate sample analysis	A	DUP
IX.	Serial Dilution	A	SD: 3
X.	Laboratory control samples	A	LCS
XI.	Field Duplicates	SW	D = 5+6
XII.	Internal Standard (ICP-MS)	A	not reviewed for Level III
XIII.	Sample Result Verification	A	Not reviewed for Level III validation
XIV.	Overall Assessment of Data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

\*\* Indicates sample underwent Level IV validation

	Client ID	Lab ID	Matrix	Date
1	MW-20-5	1832484-02	Water	10/15/18
2	MW-20-4	1832484-03	Water	10/15/18
3	MW-20-3	1832484-04	Water	10/15/18
4	MW-20-2	1832484-05	Water	10/15/18
5	MW-19-5	1832484-06	Water	10/15/18
6	DUP-1-4Q18	1832484-07	Water	10/15/18
7	MW-19-4	1832484-08	Water	10/15/18
8	MW-19-3**	1832484-09**	Water	10/15/18
9	MW-19-2	1832484-10	Water	10/15/18
10	MW-19-1	1832484-11	Water	10/15/18
11	EB-1-101518	1832484-12	Water	10/15/18
12	SB-1-101518	1832484-13	Water	10/15/18
13	MW-20-3MS	1832484-04MS	Water	10/15/18
14	MW-20-3MSD	1832484-04MSD	Water	10/15/18
15	MW-20-3DUP	1832484-04DUP	Water	10/15/18

LDC #: 43719A4a

# VALIDATION COMPLETENESS WORKSHEET

Date: 12-3-18


SDG #: 1832484

Level III/IV

Page: 2 of 2

Laboratory: BC Laboratories, Inc.

Reviewer: MG

2nd Reviewer: 

METHOD: Chromium(EPA Method 200.8)

	Client ID	Lab ID	Matrix	Date
16				
17	PBW1			
18	PBW2			

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Method:Metals (EPA SW 846 Method 6010/7000/6020)

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
<b>II. ICP/MS Tune</b>				
Were all isotopes in the tuning solution mass resolution within 0.1 amu?	✓			
Were %RSD of isotopes in the tuning solution ≤5%?	✓			
<b>III. Calibration</b>				
Were all instruments calibrated daily, each set-up time?	✓			
Were the proper number of standards used?	✓			
Were all initial and continuing calibration verification %Rs within the 90-110% (80-120% for mercury) QC limits?	✓			
Were all initial calibration correlation coefficients > 0.995?	✓			
<b>IV. Blanks</b>				
Was a method blank associated with every sample in this SDG?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
<b>V. ICP Interference Check Sample</b>				
Were ICP interference check samples performed daily?		✓		
Were the AB solution percent recoveries (%R) with the 80-120% QC limits?			✓	
<b>VI. Matrix spike/Matrix spike duplicates</b>				
Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.	✓			
Were the MS/MSD or duplicate relative percent differences (RPD) ≤ 20% for waters and ≤ 35% for soil samples? A control limit of +/- RL(+/-2X RL for soil) was used for samples that were ≤ 5X the RL, including when only one of the duplicate sample values were < 5X the RL.	✓			
<b>VII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% QC limits for water samples and laboratory established QC limits for soils?	✓			

Validation Area	Yes	No	NA	Findings/Comments
<b>VIII. Internal Standards (EPA SW 846 Method 6020/EPA 200.8)</b>				
Were all the percent recoveries (%R) within the 30-120% (6020)/60-125% (200.8) of the intensity of the internal standard in the associated initial calibration?	✓			
If the %Rs were outside the criteria, was a reanalysis performed?			✓	
<b>IX. ICP Serial Dilution</b>				
Was an ICP serial dilution analyzed if analyte concentrations were > 50X the MDL (ICP)/>100X the MDL(ICP/MS)?	✓			
Were all percent differences (%Ds) < 10%?	✓			
Was there evidence of negative interference? If yes, professional judgement will be used to qualify the data.		✓		
<b>X. Sample Result Verification</b>				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
<b>XI. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	✓			
<b>XII. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	✓			
Target analytes were detected in the field duplicates.	✓			
<b>XIII. Field blanks</b>				
Field blanks were identified in this SDG.	✓			
Target analytes were detected in the field blanks.	✓			

LDC #: 43719A4a

**VALIDATION FINDINGS WORKSHEET**  
**Field Blanks**

Page: 1 of 1  
Reviewer: MG  
2nd reviewer: [Signature]

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

- N/A Were field blanks identified in this SDG?
- N/A Were target analytes detected in the field blanks?

Sample: 11 Field Blank / Trip Blank / Rinsate / Other EB (circle one)

Analyte	Concentration Units ( )
Cr	0.77 (µg/L)

Sample: 12 Field Blank / Trip Blank / Rinsate / Other SB (circle one)

Analyte	Concentration Units ( )
Cr	0.62 (µg/L)

LDC#: 43719A4a

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

Page: 1 of 1  
Reviewer: MG  
2nd Reviewer: Q

**METHOD:** Metals (EPA Method 200.8)

Analyte	Concentration (ug/L)		RPD	
	5	6		
Chromium	1.9	1.8	5	

V:\FIELD DUPLICATES\Field Duplicates\FD\_inorganic\2018\43719A4a.WPD

## VALIDATION FINDINGS WORKSHEET

### Initial and Continuing Calibration Calculation Verification

**METHOD:** Trace metals (EPA SW 846 Method 6010/6020/7000)

An initial and continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

$$\%R = \frac{\text{Found}}{\text{True}} \times 100$$

Where, Found = concentration (in ug/L) of each analyte measured in the analysis of the ICV or CCV solution  
 True = concentration (in ug/L) of each analyte in the ICV or CCV source

Standard ID	Type of Analysis	Element	Found (ug/L)	True (ug/L)	Recalculated	Reported	Acceptable (Y/N)
					%R	%R	
	ICP (Low Level calibration)						
	ICP/MS (Low Level calibration)						
	ICP (Initial calibration)						
<u>0836 ICV</u>	ICP/MS (Initial calibration)	<u>Cr</u>	<u>51.630</u>	<u>50.000</u>	<u>103</u>	<u>103</u>	<u>Y</u>
	CVAA (Initial calibration)						↓
	ICP (Continuing calibration)						
<u>1909 CCV/G</u>	ICP/MS (Continuing calibration)	<u>Cr</u>	<u>40.266</u>	<u>40.000</u>	<u>101</u>	<u>101</u>	
	CVAA (Continuing calibration)						

ICP-MS TUNE	Calculation	Mass	Actual (Mean Counts / Axis)	Required (Counts / Axis)	Recalculated %RSD	Acceptable (Y/N)
<u>tune</u>	Mass Axis	<u>207.977</u>	<u>207.979</u>	<u>± 0.1 AMU</u>	<u>NA</u>	<u>Y</u>
<u>↓</u>	%RSD	<u>114.9</u>	<u>2.0</u>	<u>≤ 5% RSD</u>	<u>2.0</u>	<u>↓</u>

Comments:



LDC #: 43719A4a

**VALIDATION FINDINGS WORKSHEET**  
**Level IV Recalculation Worksheet**

Page: 1 of 1  
Reviewer: MG  
2nd Reviewer: [Signature]

**METHOD:** Trace Metals (EPA SW 846 Method 6010/6020/7000)

Percent recoveries (%R) for an ICP interference check sample, a laboratory control sample and a matrix spike sample were recalculated using the following formula:

$$\%R = \frac{\text{Found}}{\text{True}} \times 100$$
 Where, Found = Concentration of each analyte measured in the analysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result) - SR (sample result).  
 True = Concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

$$RPD = \frac{|S-D|}{(S+D)/2} \times 100$$
 Where, S = Original sample concentration  
 D = Duplicate sample concentration

An ICP serial dilution percent difference (%D) was recalculated using the following formula:

$$\%D = \frac{|I-SDR|}{I} \times 100$$
 Where, I = Initial Sample Result (mg/L)  
 SDR = Serial Dilution Result (mg/L) (Instrument Reading x 5)

Sample ID	Type of Analysis	Element	Found / S / I (units)	True / D / SDR (units)	Recalculated	Reported	Acceptable (Y/N)
					%R / RPD / %D	%R / RPD / %D	
—	ICP interference check	—	—	—	—	—	—
1841 LCS	Laboratory control sample	Cr	38.58 (µg/L)	40.00 (µg/L)	96.4	96.5	Y
1859 13	Matrix spike	Cr	(SSR-SR) 35.20 (µg/L)	40.00 (µg/L)	88.0	88.0	↓
1848 / 1852 15	Duplicate	Cr	0.50U (µg/L)	0.50U (µg/L)	0	—	↓
1848 / 1855 3	ICP serial dilution	Cr	0.50U (µg/L)	2.50U (µg/L)	0	—	↓

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 43719A4a

# VALIDATION FINDINGS WORKSHEET

## Sample Calculation Verification

 Page: 1 of 1  
 Reviewer: MG  
 2nd reviewer: [Signature]

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

- N/A Have results been reported and calculated correctly?
- N/A Are results within the calibrated range of the instruments and within the linear range of the ICP?
- N/A Are all detection limits below the CRDL?

 Detected analyte results for # 8, Cr were recalculated and verified using the following equation:

$$\text{Concentration} = \frac{(\text{RD})(\text{FV})(\text{Dil})}{(\text{In. Vol.})}$$

Recalculation:

- RD = Raw data concentration  
 FV = Final volume (ml)  
 In. Vol. = Initial volume (ml) or weight (G)  
 Dil = Dilution factor

$$\frac{(3.171 \mu\text{g/L})(0.050 \text{ L})}{0.050 \text{ L}} = 3.171 \mu\text{g/L}$$

#	Sample ID	Analyte	Reported Concentration (µg/L)	Calculated Concentration (µg/L)	Acceptable (Y/N)
1	8	Cr	3.2	3.2	Y

Note: \_\_\_\_\_

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** NASA JPL, 4Q2018  
**LDC Report Date:** December 10, 2018  
**Parameters:** Wet Chemistry  
**Validation Level:** Level III & IV  
**Laboratory:** BC Laboratories, Inc.

**Sample Delivery Group (SDG):** 1832484

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-20-5	1832484-02	Water	10/15/18
MW-20-4	1832484-03	Water	10/15/18
MW-20-3	1832484-04	Water	10/15/18
MW-20-2	1832484-05	Water	10/15/18
MW-19-5	1832484-06	Water	10/15/18
DUP-1-4Q18	1832484-07	Water	10/15/18
MW-19-4	1832484-08	Water	10/15/18
MW-19-3**	1832484-09**	Water	10/15/18
MW-19-2	1832484-10	Water	10/15/18
MW-19-1	1832484-11	Water	10/15/18
EB-1-101518	1832484-12	Water	10/15/18
SB-1-101518	1832484-13	Water	10/15/18
MW-20-3MS	1832484-04MS	Water	10/15/18
MW-20-3MSD	1832484-04MSD	Water	10/15/18
MW-20-3DUP	1832484-04DUP	Water	10/15/18
MW-19-1MS	1832484-11MS	Water	10/15/18
MW-19-1MSD	1832484-11MSD	Water	10/15/18
MW-19-1DUP	1832484-11DUP	Water	10/15/18

\*\*Indicates sample underwent Level IV validation

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with a modified outline of the USEPA National Functional Guidelines (NFG) for Inorganic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following methods:

Hexavalent Chromium by Environmental Protection Agency (EPA) SW 846 Method 7196

Perchlorate by EPA Method 314.0

All sample results were subjected to Level III data validation, which comprises an evaluation of quality control (QC) summary results. Samples appended with a double asterisk on the cover page were subjected to Level IV data validation, which is comprised of the QC summary forms as well as the raw data, to confirm sample quantitation and identification.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated due to non-conformances discovered during data validation.
- U (Non-detected): The compound or analyte was analyzed for and positively identified by the laboratory; however the compound or analyte should be considered non-detected at the reported concentration due to the presence of contaminants detected in the associated blank(s).
- UJ (Non-detected estimated): The compound or analyte was reported as not detected by the laboratory; however the reported quantitation/detection limit is estimated due to non-conformances discovered during data validation.
- R (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition.

All technical holding time requirements were met.

## **II. Initial Calibration**

All criteria for the initial calibration of each method were met.

## **III. Continuing Calibration**

Continuing calibration frequency and analysis criteria were met for each method when applicable.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the methods. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

Sample EB-1-101518 was identified as an equipment blank. No contaminants were found.

Sample SB-1-101518 was identified as a source blank. No contaminants were found.

## **VI. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **VII. Duplicate Sample Analysis**

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the methods. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

Samples MW-19-5 and DUP-1-4Q18 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Analyte	Concentration		RPD
	MW-19-5	DUP-1-4Q18	
Hexavalent chromium	0.0024 mg/L	0.0027 mg/L	12
Perchlorate	1.9 ug/L	1.9 ug/L	0

### X. Sample Result Verification

All sample result verifications were acceptable for samples which underwent Level IV validation. Raw data were not reviewed for Level III validation.

### XI. Overall Assessment of Data

The analysis was conducted within all specifications of the methods. No results were rejected in this SDG.

The quality control criteria reviewed were met and are considered acceptable. Based upon the data validation all results are considered valid and usable for all purposes.

**NASA JPL, 4Q2018**  
**Wet Chemistry - Data Qualification Summary - SDG 1832484**

No Sample Data Qualified in this SDG

**NASA JPL, 4Q2018**  
**Wet Chemistry - Laboratory Blank Data Qualification Summary - SDG 1832484**

No Sample Data Qualified in this SDG

LDC #: 43719A6  
 SDG #: 1832484  
 Laboratory: BC Laboratories, Inc.

**VALIDATION COMPLETENESS WORKSHEET**  
 Level III/IV

Date: 12-3-18  
 Page: 1 of 2  
 Reviewer: MG  
 2nd Reviewer: [Signature]

**METHOD: (Analyte) Hexavalent Chromium (EPA SW846 Method 7196), Perchlorate (EPA Method 314.0)**

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A	
II	Initial calibration	A	
III.	Calibration verification	A	
IV	Laboratory Blanks	A	
V	Field blanks	ND	EB = 11 SB = 12
VI.	Matrix Spike/Matrix Spike Duplicates	A	MS/MSD
VII.	Duplicate sample analysis	A	DUP
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	SW	D = 5+6
X.	Sample result verification	A	Not reviewed for Level III validation
XI	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet  
 ND = No compounds detected  
 R = Rinsate  
 FB = Field blank  
 D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank  
 SB = Source blank  
 OTHER:

\*\* Indicates sample underwent Level IV validation

	Client ID	Lab ID	Matrix	Date
1	MW-20-5	1832484-02	Water	10/15/18
2	MW-20-4	1832484-03	Water	10/15/18
3	MW-20-3	1832484-04	Water	10/15/18
4	MW-20-2	1832484-05	Water	10/15/18
5	MW-19-5	1832484-06	Water	10/15/18
6	DUP-1-4Q18	1832484-07	Water	10/15/18
7	MW-19-4	1832484-08	Water	10/15/18
8	MW-19-3**	1832484-09**	Water	10/15/18
9	MW-19-2	1832484-10	Water	10/15/18
10	MW-19-1	1832484-11	Water	10/15/18
11	EB-1-101518	1832484-12	Water	10/15/18
12	SB-1-101518	1832484-13	Water	10/15/18
13	MW-20-3MS	1832484-04MS	Water	10/15/18
14	MW-20-3MSD	1832484-04MSD	Water	10/15/18
15	MW-20-3DUP	1832484-04DUP	Water	10/15/18
16	MW-19-1MS	1832484-11MS	Water	10/15/18
17	MW-19-1MSD	1832484-11MSD	Water	10/15/18



LDC #: 43719A6  
SDG #: 1832484  
Laboratory: BC Laboratories, Inc.

**VALIDATION COMPLETENESS WORKSHEET**

Level III/IV

Date: 12-3-18  
Page: 2 of 2  
Reviewer: MG  
2nd Reviewer: [Signature]

**METHOD: (Analyte) Hexavalent Chromium (EPA SW846 Method 7196), Perchlorate (EPA Method 314.0)**

	Client ID	Lab ID	Matrix	Date
18	MW-19-1DUP	1832484-11DUP	Water	10/15/18
19				
20	PBW1			
21	PBW2			

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Method: Inorganics (EPA Method See cover)

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
<b>II. Calibration</b>				
Were all instruments calibrated daily, each set-up time?	✓			
Were the proper number of standards used?	✓			
Were all initial calibration correlation coefficients $\geq 0.995$ ?	✓			
Were all initial and continuing calibration verification %Rs within the 90-110% QC limits?	✓			
Were titrant checks performed as required? (Level IV only)			✓	
Were balance checks performed as required? (Level IV only)			✓	
<b>III. Blanks</b>				
Was a method blank associated with every sample in this SDG?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
<b>IV. Matrix spike/Matrix spike duplicates and Duplicates</b>				
Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.	✓			
Were the MS/MSD or duplicate relative percent differences (RPD) $\leq 20\%$ for waters and $\leq 35\%$ for soil samples? A control limit of $\leq \text{CRDL}$ ( $\leq 2\text{X CRDL}$ for soil) was used for samples that were $\leq 5\text{X}$ the CRDL, including when only one of the duplicate sample values were $< 5\text{X}$ the CRDL.	✓			
<b>V. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% (85-115% for Method 300.0) QC limits?	✓			
<b>VI. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 43719A6

## VALIDATION FINDINGS CHECKLIST

Page: 2 of 2  
Reviewer: MG  
2nd Reviewer: CF

Validation Area	Yes	No	NA	Findings/Comments
<b>VII. Sample Result Verification</b>				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
Were detection limits < RL?	✓			
<b>VIII. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	✓			
<b>IX. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	✓			
Target analytes were detected in the field duplicates.	✓			
<b>X. Field blanks</b>				
Field blanks were identified in this SDG.	✓			
Target analytes were detected in the field blanks.		✓		

VALIDATION FINDINGS WORKSHEET  
Sample Specific Analysis Reference

All circled methods are applicable to each sample.

Sample ID	Matrix	Parameter
<u>1→12</u>	<u>W</u>	pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC <u>CR<sup>6+</sup></u> <u>ClO<sub>4</sub></u>
<u>QC</u> <u>13→15</u>	<u>↓</u>	pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC <u>CR<sup>6+</sup></u> <u>ClO<sub>4</sub></u>
<u>↓ 16→18</u>	<u>↓</u>	pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC <u>CR<sup>6+</sup></u> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
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		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
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		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>

Comments: \_\_\_\_\_

LDC#: 43719A6

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

Page: 1 of 1  
Reviewer: MG  
2nd Reviewer:

Inorganics, Method See Cover

Analyte	Concentration (mg/L)		RPD	
	5	6		
Hexavalent Chromium	0.0024	0.0027	12	
Perchlorate (ug/L)	1.9	1.9	0	

V:\FIELD DUPLICATES\Field Duplicates\FD\_inorganic\2018\43719A6.WPD

LDC #: 43719A6

**VALIDATION FINDINGS WORKSHEET**  
**Initial and Continuing Calibration Calculation Verification**

Page: 1 of 1  
 Reviewer: MG  
 2nd Reviewer: [Signature]

**METHOD:** Inorganics, Method see cover

The correlation coefficient (r) for the calibration of Cr VI was recalculated. Calibration date: 10-15-18

An initial or continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

$$\%R = \frac{\text{Found}}{\text{True}} \times 100$$

Where, Found = concentration of each analyte measured in the analysis of the ICV or CCV solution  
 True = concentration of each analyte in the ICV or CCV source

Type of Analysis	Analyte	Standard ID	Conc. Found (units)	Abs. True (units)	Recalculated	Reported	Acceptable (Y/N)
					r or %R	r or %R	
Initial calibration	Cr VI	Blank	0.000 (mg/L)	-0.00008	$\sqrt{r^2} = 0.998341$	$\sqrt{r^2} = 0.999714$	Y
		Standard 1	0.002 ( )	0.00359			
		Standard 2	0.005 ( )	0.00547			
		Standard 3	0.025 ( )	0.01853			
		Standard 4	0.050 ( )	0.03561			
		Standard 5	0.100 ( ↓ )	0.06673			
		Standard 6	-	-			
		Standard 7	-	-			
Calibration verification	Cr VI	0353 CCV1	9.30 (μg/L)	10.00 (μg/L)	93.0	93.0	↓
Calibration verification	Cr VI	2015 CCV2	0.0527 (mg/L)	0.050 (mg/L)	105	105	
Calibration verification	-	-	-	-	-	-	

Comments: Refer to Calibration Verification findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

**VALIDATION FINDINGS WORKSHEET**  
**Level IV Recalculation Worksheet**

**METHOD:** Inorganics, Method see cover

Percent recoveries (%R) for a laboratory control sample and a matrix spike sample were recalculated using the following formula:

$$\%R = \frac{\text{Found}}{\text{True}} \times 100$$
 Where, Found = concentration of each analyte measured in the analysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result) - SR (sample result).  
 True = concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

$$\text{RPD} = \frac{|S-D|}{(S+D)/2} \times 100$$
 Where, S = Original sample concentration  
 D = Duplicate sample concentration

Sample ID	Type of Analysis	Element	Found / S (units)	True / D (units)	Recalculated	Reported	Acceptable (Y/N)
					%R / RPD	%R / RPD	
<u>0205</u> <u>LCS</u>	Laboratory control sample	<u>ClO<sub>4</sub></u>	<u>8.98 (ug/L)</u>	<u>10.00 (ug/L)</u>	<u>89.8</u>	<u>89.8</u>	<u>Y</u>
<u>2050</u> <u>13</u>	Matrix spike sample	<u>Cr VI</u>	<u>(SSR-SR)</u> <u>0.0523 (mg/L)</u>	<u>0.052632 (mg/L)</u>	<u>99.4</u>	<u>99.4</u>	<u> </u>
<u>0251/0307</u> <u>15</u>	Duplicate sample	<u>ClO<sub>4</sub></u>	<u>0.924 (ug/L)</u>	<u>0.924 (ug/L)</u>	<u>0</u>	<u>-</u>	<u> </u>

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

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### VALIDATION FINDINGS WORKSHEET Sample Calculation Verification

METHOD: Inorganics, Method see cover

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

- N/A Have results been reported and calculated correctly?
- N/A Are results within the calibrated range of the instruments?
- N/A Are all detection limits below the CRQL?

Compound (analyte) results for # 8, ClO<sub>4</sub> reported with a positive detect were recalculated and verified using the following equation:

Concentration =  
 $Y = mx + b$   
where  
 $m = 0.0012$   
 $b = 0.0000$   
 $1:1 = 1x$

Recalculation:  
 $0.004 = 0.0012(x) + 0.0000$

$3.333 \mu\text{g/L} = x$

#	Sample ID	Analyte	Reported Concentration (μg/L)	Calculated Concentration (μg/L)	Acceptable (Y/N)
1	8	ClO <sub>4</sub>	3.2	3.3	Y

Note: method 7196 is N.D. for Level IV sample



## NASA JPL, Q4 - LDC# 43719A

SDG: 1832484

<b>Analytical Method</b>											
EPA-200.8											
<b>Sample ID</b>	<b>Lab Sample ID</b>	<b>Chemical Name</b>	<b>Anal Date</b>	<b>Result</b>	<b>Report</b>	<b>Detect</b>	<b>Lab Qual</b>	<b>Val Qual</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
DUP-1-4Q18	1832484-07	Total Recoverable Chromium	10/19/2018	1.8	Y	y	v j		3.0	0.50	ug/L
EB-1-101518	1832484-12	Total Recoverable Chromium	10/26/2018	0.77	Y	y	v j		3.0	0.50	ug/L
MW-19-1	1832484-11	Total Recoverable Chromium	10/19/2018	3	Y	n	u		3.0	0.50	ug/L
MW-19-2	1832484-10	Total Recoverable Chromium	10/19/2018	2.8	Y	y	v j		3.0	0.50	ug/L
MW-19-3	1832484-09	Total Recoverable Chromium	10/19/2018	3.2	Y	y	v		3.0	0.50	ug/L
MW-19-4	1832484-08	Total Recoverable Chromium	10/19/2018	2.1	Y	y	v j		3.0	0.50	ug/L
MW-19-5	1832484-06	Total Recoverable Chromium	10/19/2018	1.9	Y	y	v j		3.0	0.50	ug/L
MW-20-2	1832484-05	Total Recoverable Chromium	10/19/2018	3	Y	n	u		3.0	0.50	ug/L
MW-20-3	1832484-04	Total Recoverable Chromium	10/19/2018	3	Y	n	u		3.0	0.50	ug/L
MW-20-4	1832484-03	Total Recoverable Chromium	10/19/2018	3	Y	n	u		3.0	0.50	ug/L
MW-20-5	1832484-02	Total Recoverable Chromium	10/19/2018	3	Y	n	u		3.0	0.50	ug/L
SB-1-101518	1832484-13	Total Recoverable Chromium	10/26/2018	0.62	Y	y	v j		3.0	0.50	ug/L

<b>Analytical Method</b>											
EPA-314.0											
<b>Sample ID</b>	<b>Lab Sample ID</b>	<b>Chemical Name</b>	<b>Anal Date</b>	<b>Result</b>	<b>Report</b>	<b>Detect</b>	<b>Lab Qual</b>	<b>Val Qual</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
DUP-1-4Q18	1832484-07	Perchlorate	10/23/2018	1.9	Y	y	v j		4.0	0.92	ug/L
EB-1-101518	1832484-12	Perchlorate	10/23/2018	4	Y	n	u		4.0	0.92	ug/L
MW-19-1	1832484-11	Perchlorate	10/23/2018	4	Y	n	u		4.0	0.92	ug/L
MW-19-2	1832484-10	Perchlorate	10/23/2018	3.6	Y	y	v j		4.0	0.92	ug/L
MW-19-3	1832484-09	Perchlorate	10/23/2018	3.2	Y	y	v j		4.0	0.92	ug/L
MW-19-4	1832484-08	Perchlorate	10/23/2018	2.9	Y	y	v j		4.0	0.92	ug/L
MW-19-5	1832484-06	Perchlorate	10/23/2018	1.9	Y	y	v j		4.0	0.92	ug/L
MW-20-2	1832484-05	Perchlorate	10/23/2018	2	Y	y	v j		4.0	0.92	ug/L
MW-20-3	1832484-04	Perchlorate	10/23/2018	4	Y	n	u		4.0	0.92	ug/L

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Analytical Method		EPA-314.0									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-20-4	1832484-03	Perchlorate	10/23/2018	4	Y	n	u		4.0	0.92	ug/L
MW-20-5	1832484-02	Perchlorate	10/23/2018	4	Y	n	u		4.0	0.92	ug/L
SB-1-101518	1832484-13	Perchlorate	10/23/2018	4	Y	n	u		4.0	0.92	ug/L

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
DUP-1-4Q18	1832484-07	Vinyl chloride	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
DUP-1-4Q18	1832484-07	cis-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
DUP-1-4Q18	1832484-07	1,2,4-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-1-4Q18	1832484-07	1,1,1-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
DUP-1-4Q18	1832484-07	1,1,2-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
DUP-1-4Q18	1832484-07	Trichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
DUP-1-4Q18	1832484-07	Trichlorofluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-1-4Q18	1832484-07	1,2,3-Trichloropropane	10/21/2018	1	Y	n	u		1.0	0.78	ug/L
DUP-1-4Q18	1832484-07	Toluene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-1-4Q18	1832484-07	1,2,4-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-1-4Q18	1832484-07	Tetrachloroethene	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
DUP-1-4Q18	1832484-07	Acrylonitrile	10/21/2018	5	Y	n	u		5.0	1.5	ug/L
DUP-1-4Q18	1832484-07	Allyl chloride	10/21/2018	5	Y	n	u		5.0	0.47	ug/L
DUP-1-4Q18	1832484-07	t-Amyl Methyl ether	10/21/2018	0.5	Y	n	u	UJ	0.50	0.19	ug/L
DUP-1-4Q18	1832484-07	1,1-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
DUP-1-4Q18	1832484-07	t-Butyl alcohol	10/21/2018	10	Y	n	u		10	9.4	ug/L
DUP-1-4Q18	1832484-07	Carbon disulfide	10/21/2018	1	Y	n	u		1.0	0.48	ug/L
DUP-1-4Q18	1832484-07	trans-1,4-Dichloro-2-butene	10/21/2018	5	Y	n	u	UJ	5.0	1.8	ug/L
DUP-1-4Q18	1832484-07	Diethyl ether	10/21/2018	2	Y	n	u		2.0	0.33	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
DUP-1-4Q18	1832484-07	1,1,2-Trichloro-1,2,2-trifluoroethane	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
DUP-1-4Q18	1832484-07	n-Propylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
DUP-1-4Q18	1832484-07	Ethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-1-4Q18	1832484-07	Hexachlorobutadiene	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
DUP-1-4Q18	1832484-07	Isopropylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-1-4Q18	1832484-07	p-Isopropyltoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-1-4Q18	1832484-07	Methylene chloride	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
DUP-1-4Q18	1832484-07	Methyl t-butyl ether	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-1-4Q18	1832484-07	Acetone	10/21/2018	10	Y	n	u		10	6.6	ug/L
DUP-1-4Q18	1832484-07	1,2,3-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
DUP-1-4Q18	1832484-07	Ethyl methacrylate	10/21/2018	4	Y	n	u		4.0	1.3	ug/L
DUP-1-4Q18	1832484-07	trans-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
DUP-1-4Q18	1832484-07	Styrene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
DUP-1-4Q18	1832484-07	1,1,1,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
DUP-1-4Q18	1832484-07	1,1,2,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-1-4Q18	1832484-07	1,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-1-4Q18	1832484-07	trans-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-1-4Q18	1832484-07	Naphthalene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
DUP-1-4Q18	1832484-07	2,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
DUP-1-4Q18	1832484-07	cis-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-1-4Q18	1832484-07	1,3-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
DUP-1-4Q18	1832484-07	Chlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-1-4Q18	1832484-07	1,3-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
DUP-1-4Q18	1832484-07	1,2-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
DUP-1-4Q18	1832484-07	Dibromomethane	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
DUP-1-4Q18	1832484-07	1,2-Dibromoethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
DUP-1-4Q18	1832484-07	1,2-Dibromo-3-chloropropane	10/21/2018	1	Y	n	u		1.0	0.89	ug/L
DUP-1-4Q18	1832484-07	Dibromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
DUP-1-4Q18	1832484-07	4-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.093	ug/L
DUP-1-4Q18	1832484-07	2-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-1-4Q18	1832484-07	Chloromethane	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
DUP-1-4Q18	1832484-07	1,4-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-1-4Q18	1832484-07	Chloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-1-4Q18	1832484-07	sec-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
DUP-1-4Q18	1832484-07	Carbon tetrachloride	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-1-4Q18	1832484-07	tert-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
DUP-1-4Q18	1832484-07	Ethyl t-butyl ether	10/21/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
DUP-1-4Q18	1832484-07	n-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-1-4Q18	1832484-07	1,3,5-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-1-4Q18	1832484-07	Bromoform	10/21/2018	0.5	Y	n	u		0.50	0.46	ug/L
DUP-1-4Q18	1832484-07	Bromodichloromethane	10/21/2018	0.24	Y	y	v j		0.50	0.20	ug/L
DUP-1-4Q18	1832484-07	Bromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
DUP-1-4Q18	1832484-07	Bromobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-1-4Q18	1832484-07	Benzene	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
DUP-1-4Q18	1832484-07	Chloroform	10/21/2018	2	Y	y	v		0.50	0.14	ug/L
DUP-1-4Q18	1832484-07	Methyl iodide	10/21/2018	2	Y	n	u		2.0	1.1	ug/L
DUP-1-4Q18	1832484-07	Hexachloroethane	10/21/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
DUP-1-4Q18	1832484-07	Bromomethane	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
DUP-1-4Q18	1832484-07	Dichlorodifluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-1-4Q18	1832484-07	2-Hexanone	10/21/2018	10	Y	n	u		10	5.0	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
DUP-1-4Q18	1832484-07	Methacrylonitrile	10/21/2018	10	Y	n	u		10	2.3	ug/L
DUP-1-4Q18	1832484-07	Methyl ethyl ketone	10/21/2018	10	Y	n	u		10	3.3	ug/L
DUP-1-4Q18	1832484-07	Methyl isobutyl ketone	10/21/2018	10	Y	n	u		10	2.4	ug/L
DUP-1-4Q18	1832484-07	Methyl methacrylate	10/21/2018	5	Y	n	u		5.0	1.2	ug/L
DUP-1-4Q18	1832484-07	Pentachloroethane	10/21/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
DUP-1-4Q18	1832484-07	Propionitrile	10/21/2018	20	Y	n	u		20	6.2	ug/L
DUP-1-4Q18	1832484-07	Tetrahydrofuran	10/21/2018	20	Y	n	u		20	5.2	ug/L
DUP-1-4Q18	1832484-07	Methyl acrylate	10/21/2018	0	Y	y	v				ug/L
DUP-1-4Q18	1832484-07	1,1-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
DUP-1-4Q18	1832484-07	p- & m-Xylenes	10/21/2018	0.5	Y	n	u		0.50	0.34	ug/L
DUP-1-4Q18	1832484-07	1,1-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-1-4Q18	1832484-07	2-Nitropropane	10/21/2018	0	Y	y	v				ug/L
DUP-1-4Q18	1832484-07	1,2-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-1-4Q18	1832484-07	Nitrobenzene	10/21/2018	0	Y	y	v				ug/L
DUP-1-4Q18	1832484-07	1,1-Dichloropropanone	10/21/2018	0	Y	y	v				ug/L
DUP-1-4Q18	1832484-07	1-Chlorobutane	10/21/2018	0	Y	y	v				ug/L
DUP-1-4Q18	1832484-07	Chloroacetonitrile	10/21/2018	0	Y	y	v				ug/L
DUP-1-4Q18	1832484-07	o-Xylene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
EB-1-101518	1832484-12	Toluene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-1-101518	1832484-12	1,1,2-Trichloro-1,2,2-trifluoroethane	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
EB-1-101518	1832484-12	Tetrachloroethene	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
EB-1-101518	1832484-12	1,1,2,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-1-101518	1832484-12	1,2,4-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-1-101518	1832484-12	1,1,1-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
EB-1-101518	1832484-12	1,1,2-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
EB-1-101518	1832484-12	1,2,3-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
EB-1-101518	1832484-12	Trichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
EB-1-101518	1832484-12	1,3,5-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-1-101518	1832484-12	1,2,3-Trichloropropane	10/21/2018	1	Y	n	u		1.0	0.78	ug/L
EB-1-101518	1832484-12	1,2,4-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-1-101518	1832484-12	1,1,1,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
EB-1-101518	1832484-12	1,1-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
EB-1-101518	1832484-12	Vinyl chloride	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
EB-1-101518	1832484-12	Acetone	10/21/2018	10	Y	n	u		10	6.6	ug/L
EB-1-101518	1832484-12	Trichlorofluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-1-101518	1832484-12	Ethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-1-101518	1832484-12	Acrylonitrile	10/21/2018	5	Y	n	u		5.0	1.5	ug/L
EB-1-101518	1832484-12	Methyl methacrylate	10/21/2018	5	Y	n	u		5.0	1.2	ug/L
EB-1-101518	1832484-12	Benzene	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
EB-1-101518	1832484-12	trans-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-1-101518	1832484-12	1,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-1-101518	1832484-12	1,3-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
EB-1-101518	1832484-12	trans-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
EB-1-101518	1832484-12	cis-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-1-101518	1832484-12	Styrene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
EB-1-101518	1832484-12	Hexachlorobutadiene	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
EB-1-101518	1832484-12	Isopropylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-1-101518	1832484-12	p-Isopropyltoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-1-101518	1832484-12	Methylene chloride	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
EB-1-101518	1832484-12	Methyl t-butyl ether	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
EB-1-101518	1832484-12	Naphthalene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
EB-1-101518	1832484-12	n-Propylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
EB-1-101518	1832484-12	2,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
EB-1-101518	1832484-12	1,2-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
EB-1-101518	1832484-12	tert-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
EB-1-101518	1832484-12	Carbon tetrachloride	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-1-101518	1832484-12	Chlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-1-101518	1832484-12	Chloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-1-101518	1832484-12	Chloroform	10/21/2018	0.25	Y	y	v j		0.50	0.14	ug/L
EB-1-101518	1832484-12	Chloromethane	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
EB-1-101518	1832484-12	2-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-1-101518	1832484-12	4-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.093	ug/L
EB-1-101518	1832484-12	Dibromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
EB-1-101518	1832484-12	1,2-Dibromo-3-chloropropane	10/21/2018	1	Y	n	u		1.0	0.89	ug/L
EB-1-101518	1832484-12	sec-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
EB-1-101518	1832484-12	Dibromomethane	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
EB-1-101518	1832484-12	1,1-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-1-101518	1832484-12	1,3-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
EB-1-101518	1832484-12	1,4-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-1-101518	1832484-12	Dichlorodifluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-1-101518	1832484-12	Allyl chloride	10/21/2018	5	Y	n	u		5.0	0.47	ug/L
EB-1-101518	1832484-12	1,2-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-1-101518	1832484-12	Methyl iodide	10/21/2018	2	Y	n	u		2.0	1.1	ug/L
EB-1-101518	1832484-12	cis-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
EB-1-101518	1832484-12	1,1-Dichloropropanone	10/21/2018	0	Y	y	v				ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
EB-1-101518	1832484-12	Methyl acrylate	10/21/2018	0	Y	y	v				ug/L
EB-1-101518	1832484-12	Nitrobenzene	10/21/2018	0	Y	y	v				ug/L
EB-1-101518	1832484-12	2-Nitropropane	10/21/2018	0	Y	y	v				ug/L
EB-1-101518	1832484-12	1,2-Dibromoethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
EB-1-101518	1832484-12	Ethyl methacrylate	10/21/2018	4	Y	n	u		4.0	1.3	ug/L
EB-1-101518	1832484-12	o-Xylene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
EB-1-101518	1832484-12	p- & m-Xylenes	10/21/2018	0.5	Y	n	u		0.50	0.34	ug/L
EB-1-101518	1832484-12	Tetrahydrofuran	10/21/2018	20	Y	n	u		20	5.2	ug/L
EB-1-101518	1832484-12	Propionitrile	10/21/2018	20	Y	n	u		20	6.2	ug/L
EB-1-101518	1832484-12	Pentachloroethane	10/21/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
EB-1-101518	1832484-12	Methyl ethyl ketone	10/21/2018	10	Y	n	u		10	3.3	ug/L
EB-1-101518	1832484-12	2-Hexanone	10/21/2018	10	Y	n	u		10	5.0	ug/L
EB-1-101518	1832484-12	Chloroacetonitrile	10/21/2018	0	Y	y	v				ug/L
EB-1-101518	1832484-12	Ethyl t-butyl ether	10/21/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
EB-1-101518	1832484-12	Methyl isobutyl ketone	10/21/2018	10	Y	n	u		10	2.4	ug/L
EB-1-101518	1832484-12	Diethyl ether	10/21/2018	2	Y	n	u		2.0	0.33	ug/L
EB-1-101518	1832484-12	trans-1,4-Dichloro-2-butene	10/21/2018	5	Y	n	u	UJ	5.0	1.8	ug/L
EB-1-101518	1832484-12	Carbon disulfide	10/21/2018	1	Y	n	u		1.0	0.48	ug/L
EB-1-101518	1832484-12	t-Butyl alcohol	10/21/2018	10	Y	n	u		10	9.4	ug/L
EB-1-101518	1832484-12	t-Amyl Methyl ether	10/21/2018	0.5	Y	n	u	UJ	0.50	0.19	ug/L
EB-1-101518	1832484-12	n-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-1-101518	1832484-12	1,1-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
EB-1-101518	1832484-12	Hexachloroethane	10/21/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
EB-1-101518	1832484-12	Bromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
EB-1-101518	1832484-12	Bromomethane	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L



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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
EB-1-101518	1832484-12	Bromoform	10/21/2018	0.5	Y	n	u		0.50	0.46	ug/L
EB-1-101518	1832484-12	Methacrylonitrile	10/21/2018	10	Y	n	u		10	2.3	ug/L
EB-1-101518	1832484-12	Bromodichloromethane	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
EB-1-101518	1832484-12	Bromobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-1-101518	1832484-12	1-Chlorobutane	10/21/2018	0	Y	y	v				ug/L
MW-19-1	1832484-11	Tetrachloroethene	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-19-1	1832484-11	Naphthalene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-19-1	1832484-11	2,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-19-1	1832484-11	n-Propylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-19-1	1832484-11	cis-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-19-1	1832484-11	Styrene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-19-1	1832484-11	Ethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-19-1	1832484-11	1,1,2,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-19-1	1832484-11	Hexachlorobutadiene	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-19-1	1832484-11	Toluene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-19-1	1832484-11	1,2,3-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-19-1	1832484-11	1,2,4-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-19-1	1832484-11	1,1,1-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-19-1	1832484-11	1,1,2-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-19-1	1832484-11	Trichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-19-1	1832484-11	1,1,1,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-19-1	1832484-11	1,2-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-19-1	1832484-11	trans-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-19-1	1832484-11	Ethyl methacrylate	10/21/2018	4	Y	n	u		4.0	1.3	ug/L
MW-19-1	1832484-11	1,2-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-19-1	1832484-11	Trichlorofluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-19-1	1832484-11	1,1-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-19-1	1832484-11	Dichlorodifluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-19-1	1832484-11	Methylene chloride	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-19-1	1832484-11	1,3-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-19-1	1832484-11	Isopropylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-19-1	1832484-11	cis-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-19-1	1832484-11	trans-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-19-1	1832484-11	1,1-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-19-1	1832484-11	1,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-19-1	1832484-11	1,3-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-19-1	1832484-11	1,1-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-19-1	1832484-11	1,4-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-19-1	1832484-11	p- & m-Xylenes	10/21/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-19-1	1832484-11	2-Nitropropane	10/21/2018	0	Y	y	v				ug/L
MW-19-1	1832484-11	Nitrobenzene	10/21/2018	0	Y	y	v				ug/L
MW-19-1	1832484-11	Methyl acrylate	10/21/2018	0	Y	y	v				ug/L
MW-19-1	1832484-11	1,1-Dichloropropanone	10/21/2018	0	Y	y	v				ug/L
MW-19-1	1832484-11	1-Chlorobutane	10/21/2018	0	Y	y	v				ug/L
MW-19-1	1832484-11	trans-1,4-Dichloro-2-butene	10/21/2018	5	Y	n	u	UJ	5.0	1.8	ug/L
MW-19-1	1832484-11	o-Xylene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-19-1	1832484-11	Methacrylonitrile	10/21/2018	10	Y	n	u		10	2.3	ug/L
MW-19-1	1832484-11	Tetrahydrofuran	10/21/2018	20	Y	n	u		20	5.2	ug/L
MW-19-1	1832484-11	Propionitrile	10/21/2018	20	Y	n	u		20	6.2	ug/L
MW-19-1	1832484-11	Pentachloroethane	10/21/2018	2	Y	n	u	UJ	2.0	0.63	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-19-1	1832484-11	Methyl methacrylate	10/21/2018	5	Y	n	u		5.0	1.2	ug/L
MW-19-1	1832484-11	Methyl isobutyl ketone	10/21/2018	10	Y	n	u		10	2.4	ug/L
MW-19-1	1832484-11	Methyl iodide	10/21/2018	2	Y	n	u		2.0	1.1	ug/L
MW-19-1	1832484-11	Chloroacetonitrile	10/21/2018	0	Y	y	v				ug/L
MW-19-1	1832484-11	t-Butyl alcohol	10/21/2018	10	Y	n	u		10	9.4	ug/L
MW-19-1	1832484-11	1,1,2-Trichloro-1,2,2-trifluoroethane	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-19-1	1832484-11	1,2,4-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-19-1	1832484-11	1,3,5-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-19-1	1832484-11	Vinyl chloride	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-19-1	1832484-11	Acetone	10/21/2018	10	Y	n	u		10	6.6	ug/L
MW-19-1	1832484-11	Acrylonitrile	10/21/2018	5	Y	n	u		5.0	1.5	ug/L
MW-19-1	1832484-11	Methyl t-butyl ether	10/21/2018	0.74	Y	y	v		0.50	0.14	ug/L
MW-19-1	1832484-11	t-Amyl Methyl ether	10/21/2018	0.5	Y	n	u	UJ	0.50	0.19	ug/L
MW-19-1	1832484-11	Methyl ethyl ketone	10/21/2018	10	Y	n	u		10	3.3	ug/L
MW-19-1	1832484-11	Carbon disulfide	10/21/2018	1	Y	n	u		1.0	0.48	ug/L
MW-19-1	1832484-11	Diethyl ether	10/21/2018	2	Y	n	u		2.0	0.33	ug/L
MW-19-1	1832484-11	Ethyl t-butyl ether	10/21/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
MW-19-1	1832484-11	Hexachloroethane	10/21/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
MW-19-1	1832484-11	2-Hexanone	10/21/2018	10	Y	n	u		10	5.0	ug/L
MW-19-1	1832484-11	1,2,3-Trichloropropane	10/21/2018	1	Y	n	u		1.0	0.78	ug/L
MW-19-1	1832484-11	Allyl chloride	10/21/2018	5	Y	n	u		5.0	0.47	ug/L
MW-19-1	1832484-11	Bromomethane	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-19-1	1832484-11	p-Isopropyltoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-19-1	1832484-11	Benzene	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-19-1	1832484-11	Bromobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-19-1	1832484-11	Bromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-19-1	1832484-11	Bromoform	10/21/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-19-1	1832484-11	n-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-19-1	1832484-11	sec-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-19-1	1832484-11	tert-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-19-1	1832484-11	Carbon tetrachloride	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-19-1	1832484-11	Chlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-19-1	1832484-11	1,2-Dibromoethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-19-1	1832484-11	Chloroform	10/21/2018	2.4	Y	y	v		0.50	0.14	ug/L
MW-19-1	1832484-11	Chloromethane	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-19-1	1832484-11	2-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-19-1	1832484-11	4-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-19-1	1832484-11	Dibromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-19-1	1832484-11	1,2-Dibromo-3-chloropropane	10/21/2018	1	Y	n	u		1.0	0.89	ug/L
MW-19-1	1832484-11	Bromodichloromethane	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-19-1	1832484-11	Dibromomethane	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-19-1	1832484-11	Chloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-19-2	1832484-10	Diethyl ether	10/21/2018	2	Y	n	u		2.0	0.33	ug/L
MW-19-2	1832484-10	Ethyl methacrylate	10/21/2018	4	Y	n	u		4.0	1.3	ug/L
MW-19-2	1832484-10	Ethyl t-butyl ether	10/21/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
MW-19-2	1832484-10	trans-1,4-Dichloro-2-butene	10/21/2018	5	Y	n	u	UJ	5.0	1.8	ug/L
MW-19-2	1832484-10	2-Hexanone	10/21/2018	10	Y	n	u		10	5.0	ug/L
MW-19-2	1832484-10	1,3,5-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-19-2	1832484-10	Methacrylonitrile	10/21/2018	10	Y	n	u		10	2.3	ug/L
MW-19-2	1832484-10	Hexachloroethane	10/21/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-19-2	1832484-10	Carbon disulfide	10/21/2018	1	Y	n	u		1.0	0.48	ug/L
MW-19-2	1832484-10	t-Butyl alcohol	10/21/2018	10	Y	n	u		10	9.4	ug/L
MW-19-2	1832484-10	t-Amyl Methyl ether	10/21/2018	0.5	Y	n	u	UJ	0.50	0.19	ug/L
MW-19-2	1832484-10	Acrylonitrile	10/21/2018	5	Y	n	u		5.0	1.5	ug/L
MW-19-2	1832484-10	Acetone	10/21/2018	10	Y	n	u		10	6.6	ug/L
MW-19-2	1832484-10	Methyl ethyl ketone	10/21/2018	10	Y	n	u		10	3.3	ug/L
MW-19-2	1832484-10	Methyl acrylate	10/21/2018	0	Y	y	v				ug/L
MW-19-2	1832484-10	Allyl chloride	10/21/2018	5	Y	n	u		5.0	0.47	ug/L
MW-19-2	1832484-10	o-Xylene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-19-2	1832484-10	cis-1,2-Dichloroethene	10/21/2018	0.32	Y	y	v j		0.50	0.27	ug/L
MW-19-2	1832484-10	trans-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-19-2	1832484-10	2-Nitropropane	10/21/2018	0	Y	y	v				ug/L
MW-19-2	1832484-10	Nitrobenzene	10/21/2018	0	Y	y	v				ug/L
MW-19-2	1832484-10	1,2,4-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-19-2	1832484-10	1,1-Dichloropropanone	10/21/2018	0	Y	y	v				ug/L
MW-19-2	1832484-10	1-Chlorobutane	10/21/2018	0	Y	y	v				ug/L
MW-19-2	1832484-10	Chloroacetonitrile	10/21/2018	0	Y	y	v				ug/L
MW-19-2	1832484-10	Methyl iodide	10/21/2018	2	Y	n	u		2.0	1.1	ug/L
MW-19-2	1832484-10	p- & m-Xylenes	10/21/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-19-2	1832484-10	Tetrahydrofuran	10/21/2018	20	Y	n	u		20	5.2	ug/L
MW-19-2	1832484-10	Propionitrile	10/21/2018	20	Y	n	u		20	6.2	ug/L
MW-19-2	1832484-10	Pentachloroethane	10/21/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-19-2	1832484-10	Methyl methacrylate	10/21/2018	5	Y	n	u		5.0	1.2	ug/L
MW-19-2	1832484-10	Methyl isobutyl ketone	10/21/2018	10	Y	n	u		10	2.4	ug/L
MW-19-2	1832484-10	1,1,2-Trichloro-1,2,2-trifluoroethane	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-19-2	1832484-10	Chloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-19-2	1832484-10	1,1-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-19-2	1832484-10	Vinyl chloride	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-19-2	1832484-10	Benzene	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-19-2	1832484-10	Bromobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-19-2	1832484-10	Bromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-19-2	1832484-10	Bromodichloromethane	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-19-2	1832484-10	Bromoform	10/21/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-19-2	1832484-10	Bromomethane	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-19-2	1832484-10	n-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-19-2	1832484-10	sec-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-19-2	1832484-10	tert-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-19-2	1832484-10	1,2,3-Trichloropropane	10/21/2018	1	Y	n	u		1.0	0.78	ug/L
MW-19-2	1832484-10	Chlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-19-2	1832484-10	1,1-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-19-2	1832484-10	Chloroform	10/21/2018	1.7	Y	y	v		0.50	0.14	ug/L
MW-19-2	1832484-10	Chloromethane	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-19-2	1832484-10	2-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-19-2	1832484-10	4-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-19-2	1832484-10	Dibromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-19-2	1832484-10	1,2-Dibromo-3-chloropropane	10/21/2018	1	Y	n	u		1.0	0.89	ug/L
MW-19-2	1832484-10	1,2-Dibromoethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-19-2	1832484-10	Dibromomethane	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-19-2	1832484-10	1,2-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-19-2	1832484-10	1,3-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-19-2	1832484-10	1,4-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-19-2	1832484-10	Dichlorodifluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-19-2	1832484-10	Carbon tetrachloride	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-19-2	1832484-10	Styrene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-19-2	1832484-10	Trichlorofluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-19-2	1832484-10	Trichloroethene	10/21/2018	0.78	Y	y	v		0.50	0.19	ug/L
MW-19-2	1832484-10	1,1,2-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-19-2	1832484-10	1,1,1-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-19-2	1832484-10	1,2,4-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-19-2	1832484-10	1,2,3-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-19-2	1832484-10	Toluene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-19-2	1832484-10	Tetrachloroethene	10/21/2018	1.3	Y	y	v		0.50	0.23	ug/L
MW-19-2	1832484-10	1,2-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-19-2	1832484-10	1,1,1,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-19-2	1832484-10	1,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-19-2	1832484-10	n-Propylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-19-2	1832484-10	trans-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-19-2	1832484-10	1,3-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-19-2	1832484-10	2,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-19-2	1832484-10	1,1,2,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-19-2	1832484-10	cis-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-19-2	1832484-10	Naphthalene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-19-2	1832484-10	Ethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-19-2	1832484-10	Hexachlorobutadiene	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-19-2	1832484-10	Isopropylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-19-2	1832484-10	p-Isopropyltoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-19-2	1832484-10	Methylene chloride	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-19-2	1832484-10	Methyl t-butyl ether	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-19-2	1832484-10	1,1-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-19-3	1832484-09	Bromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-19-3	1832484-09	4-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-19-3	1832484-09	Benzene	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-19-3	1832484-09	Bromobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-19-3	1832484-09	1,1,2-Trichloro-1,2,2-trifluoroethane	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-19-3	1832484-09	Bromodichloromethane	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-19-3	1832484-09	Carbon disulfide	10/21/2018	1	Y	n	u		1.0	0.48	ug/L
MW-19-3	1832484-09	t-Butyl alcohol	10/21/2018	10	Y	n	u		10	9.4	ug/L
MW-19-3	1832484-09	t-Amyl Methyl ether	10/21/2018	0.5	Y	n	u	UJ	0.50	0.19	ug/L
MW-19-3	1832484-09	Allyl chloride	10/21/2018	5	Y	n	u		5.0	0.47	ug/L
MW-19-3	1832484-09	Acrylonitrile	10/21/2018	5	Y	n	u		5.0	1.5	ug/L
MW-19-3	1832484-09	Acetone	10/21/2018	10	Y	n	u		10	6.6	ug/L
MW-19-3	1832484-09	Vinyl chloride	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-19-3	1832484-09	Diethyl ether	10/21/2018	2	Y	n	u		2.0	0.33	ug/L
MW-19-3	1832484-09	1,2,4-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-19-3	1832484-09	Ethyl methacrylate	10/21/2018	4	Y	n	u		4.0	1.3	ug/L
MW-19-3	1832484-09	1,2,3-Trichloropropane	10/21/2018	1	Y	n	u		1.0	0.78	ug/L
MW-19-3	1832484-09	Trichlorofluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-19-3	1832484-09	Trichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-19-3	1832484-09	1,1,2-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-19-3	1832484-09	1,1,1-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L



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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-19-3	1832484-09	1,2,4-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-19-3	1832484-09	Chloromethane	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-19-3	1832484-09	Toluene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-19-3	1832484-09	1,3,5-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-19-3	1832484-09	Pentachloroethane	10/21/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-19-3	1832484-09	2-Nitropropane	10/21/2018	0	Y	y	v				ug/L
MW-19-3	1832484-09	Nitrobenzene	10/21/2018	0	Y	y	v				ug/L
MW-19-3	1832484-09	Methyl acrylate	10/21/2018	0	Y	y	v				ug/L
MW-19-3	1832484-09	1,1-Dichloropropanone	10/21/2018	0	Y	y	v				ug/L
MW-19-3	1832484-09	1-Chlorobutane	10/21/2018	0	Y	y	v				ug/L
MW-19-3	1832484-09	Chloroacetonitrile	10/21/2018	0	Y	y	v				ug/L
MW-19-3	1832484-09	o-Xylene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-19-3	1832484-09	p- & m-Xylenes	10/21/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-19-3	1832484-09	trans-1,4-Dichloro-2-butene	10/21/2018	5	Y	n	u	UJ	5.0	1.8	ug/L
MW-19-3	1832484-09	Propionitrile	10/21/2018	20	Y	n	u		20	6.2	ug/L
MW-19-3	1832484-09	Tetrachloroethene	10/21/2018	0.34	Y	y	v j		0.50	0.23	ug/L
MW-19-3	1832484-09	Methyl methacrylate	10/21/2018	5	Y	n	u		5.0	1.2	ug/L
MW-19-3	1832484-09	Methyl isobutyl ketone	10/21/2018	10	Y	n	u		10	2.4	ug/L
MW-19-3	1832484-09	Methyl iodide	10/21/2018	2	Y	n	u		2.0	1.1	ug/L
MW-19-3	1832484-09	Methyl ethyl ketone	10/21/2018	10	Y	n	u		10	3.3	ug/L
MW-19-3	1832484-09	Methacrylonitrile	10/21/2018	10	Y	n	u		10	2.3	ug/L
MW-19-3	1832484-09	2-Hexanone	10/21/2018	10	Y	n	u		10	5.0	ug/L
MW-19-3	1832484-09	Hexachloroethane	10/21/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
MW-19-3	1832484-09	Ethyl t-butyl ether	10/21/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
MW-19-3	1832484-09	Tetrahydrofuran	10/21/2018	20	Y	n	u		20	5.2	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-19-3	1832484-09	Chloroform	10/21/2018	1.7	Y	y	v		0.50	0.14	ug/L
MW-19-3	1832484-09	1,1,2,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-19-3	1832484-09	1,4-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-19-3	1832484-09	1,2,3-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-19-3	1832484-09	1,2-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-19-3	1832484-09	Dibromomethane	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-19-3	1832484-09	1,2-Dibromoethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-19-3	1832484-09	1,2-Dibromo-3-chloropropane	10/21/2018	1	Y	n	u		1.0	0.89	ug/L
MW-19-3	1832484-09	1,1-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-19-3	1832484-09	2-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-19-3	1832484-09	Dichlorodifluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-19-3	1832484-09	Chloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-19-3	1832484-09	Chlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-19-3	1832484-09	Carbon tetrachloride	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-19-3	1832484-09	tert-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-19-3	1832484-09	sec-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-19-3	1832484-09	n-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-19-3	1832484-09	Bromomethane	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-19-3	1832484-09	Bromoform	10/21/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-19-3	1832484-09	Dibromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-19-3	1832484-09	Hexachlorobutadiene	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-19-3	1832484-09	1,1,1,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-19-3	1832484-09	Styrene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-19-3	1832484-09	n-Propylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-19-3	1832484-09	Naphthalene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-19-3	1832484-09	Methyl t-butyl ether	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-19-3	1832484-09	Methylene chloride	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-19-3	1832484-09	p-Isopropyltoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-19-3	1832484-09	1,3-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-19-3	1832484-09	Isopropylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-19-3	1832484-09	1,2-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-19-3	1832484-09	Ethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-19-3	1832484-09	trans-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-19-3	1832484-09	cis-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-19-3	1832484-09	1,1-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-19-3	1832484-09	2,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-19-3	1832484-09	1,3-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-19-3	1832484-09	1,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-19-3	1832484-09	trans-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-19-3	1832484-09	cis-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-19-3	1832484-09	1,1-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-19-4	1832484-08	1,3-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-19-4	1832484-08	Benzene	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-19-4	1832484-08	Bromobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-19-4	1832484-08	Bromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-19-4	1832484-08	Bromodichloromethane	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-19-4	1832484-08	1,1,2-Trichloro-1,2,2-trifluoroethane	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-19-4	1832484-08	trans-1,4-Dichloro-2-butene	10/21/2018	5	Y	n	u	UJ	5.0	1.8	ug/L
MW-19-4	1832484-08	Carbon disulfide	10/21/2018	1	Y	n	u		1.0	0.48	ug/L
MW-19-4	1832484-08	t-Butyl alcohol	10/21/2018	10	Y	n	u		10	9.4	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-19-4	1832484-08	t-Amyl Methyl ether	10/21/2018	0.5	Y	n	u	UJ	0.50	0.19	ug/L
MW-19-4	1832484-08	Allyl chloride	10/21/2018	5	Y	n	u		5.0	0.47	ug/L
MW-19-4	1832484-08	Acrylonitrile	10/21/2018	5	Y	n	u		5.0	1.5	ug/L
MW-19-4	1832484-08	Acetone	10/21/2018	10	Y	n	u		10	6.6	ug/L
MW-19-4	1832484-08	Vinyl chloride	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-19-4	1832484-08	Tetrachloroethene	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-19-4	1832484-08	1,2,4-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-19-4	1832484-08	Ethyl t-butyl ether	10/21/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
MW-19-4	1832484-08	1,2,3-Trichloropropane	10/21/2018	1	Y	n	u		1.0	0.78	ug/L
MW-19-4	1832484-08	Trichlorofluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-19-4	1832484-08	Trichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-19-4	1832484-08	1,1,2-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-19-4	1832484-08	1,1,1-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-19-4	1832484-08	1,2,4-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-19-4	1832484-08	1,2,3-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-19-4	1832484-08	Toluene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-19-4	1832484-08	1,3,5-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-19-4	1832484-08	Propionitrile	10/21/2018	20	Y	n	u		20	6.2	ug/L
MW-19-4	1832484-08	Dibromomethane	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-19-4	1832484-08	2-Nitropropane	10/21/2018	0	Y	y	v				ug/L
MW-19-4	1832484-08	Bromoform	10/21/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-19-4	1832484-08	Methyl acrylate	10/21/2018	0	Y	y	v				ug/L
MW-19-4	1832484-08	1,1-Dichloropropanone	10/21/2018	0	Y	y	v				ug/L
MW-19-4	1832484-08	1-Chlorobutane	10/21/2018	0	Y	y	v				ug/L
MW-19-4	1832484-08	Chloroacetonitrile	10/21/2018	0	Y	y	v				ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-19-4	1832484-08	o-Xylene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-19-4	1832484-08	Diethyl ether	10/21/2018	2	Y	n	u		2.0	0.33	ug/L
MW-19-4	1832484-08	Tetrahydrofuran	10/21/2018	20	Y	n	u		20	5.2	ug/L
MW-19-4	1832484-08	Ethyl methacrylate	10/21/2018	4	Y	n	u		4.0	1.3	ug/L
MW-19-4	1832484-08	Pentachloroethane	10/21/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-19-4	1832484-08	Methyl methacrylate	10/21/2018	5	Y	n	u		5.0	1.2	ug/L
MW-19-4	1832484-08	Methyl isobutyl ketone	10/21/2018	10	Y	n	u		10	2.4	ug/L
MW-19-4	1832484-08	Methyl iodide	10/21/2018	2	Y	n	u		2.0	1.1	ug/L
MW-19-4	1832484-08	Methyl ethyl ketone	10/21/2018	10	Y	n	u		10	3.3	ug/L
MW-19-4	1832484-08	Methacrylonitrile	10/21/2018	10	Y	n	u		10	2.3	ug/L
MW-19-4	1832484-08	2-Hexanone	10/21/2018	10	Y	n	u		10	5.0	ug/L
MW-19-4	1832484-08	Hexachloroethane	10/21/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
MW-19-4	1832484-08	Nitrobenzene	10/21/2018	0	Y	y	v				ug/L
MW-19-4	1832484-08	p- & m-Xylenes	10/21/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-19-4	1832484-08	Chloromethane	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-19-4	1832484-08	1,1-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-19-4	1832484-08	Dichlorodifluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-19-4	1832484-08	1,4-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-19-4	1832484-08	1,2-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-19-4	1832484-08	1,2-Dibromoethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-19-4	1832484-08	1,2-Dibromo-3-chloropropane	10/21/2018	1	Y	n	u		1.0	0.89	ug/L
MW-19-4	1832484-08	Dibromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-19-4	1832484-08	1,2-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-19-4	1832484-08	2-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-19-4	1832484-08	sec-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-19-4	1832484-08	Chloroform	10/21/2018	0.35	Y	y	v j		0.50	0.14	ug/L
MW-19-4	1832484-08	Chloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-19-4	1832484-08	Chlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-19-4	1832484-08	Carbon tetrachloride	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-19-4	1832484-08	tert-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-19-4	1832484-08	n-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-19-4	1832484-08	1,1,2,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-19-4	1832484-08	4-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-19-4	1832484-08	Naphthalene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-19-4	1832484-08	1,1,1,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-19-4	1832484-08	Bromomethane	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-19-4	1832484-08	1,1-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-19-4	1832484-08	Styrene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-19-4	1832484-08	n-Propylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-19-4	1832484-08	Methyl t-butyl ether	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-19-4	1832484-08	Methylene chloride	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-19-4	1832484-08	p-Isopropyltoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-19-4	1832484-08	Isopropylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-19-4	1832484-08	Hexachlorobutadiene	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-19-4	1832484-08	Ethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-19-4	1832484-08	cis-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-19-4	1832484-08	1,1-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-19-4	1832484-08	cis-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-19-4	1832484-08	1,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-19-4	1832484-08	2,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L

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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-19-4	1832484-08	trans-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-19-4	1832484-08	trans-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-19-4	1832484-08	1,3-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-19-5	1832484-06	Allyl chloride	10/21/2018	5	Y	n	u		5.0	0.47	ug/L
MW-19-5	1832484-06	1,3,5-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-19-5	1832484-06	Vinyl chloride	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-19-5	1832484-06	1,2,4-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-19-5	1832484-06	Acrylonitrile	10/21/2018	5	Y	n	u		5.0	1.5	ug/L
MW-19-5	1832484-06	Trichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-19-5	1832484-06	t-Amyl Methyl ether	10/21/2018	0.5	Y	n	u	UJ	0.50	0.19	ug/L
MW-19-5	1832484-06	t-Butyl alcohol	10/21/2018	10	Y	n	u		10	9.4	ug/L
MW-19-5	1832484-06	Acetone	10/21/2018	10	Y	n	u		10	6.6	ug/L
MW-19-5	1832484-06	1,1,2-Trichloro-1,2,2-trifluoroethane	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-19-5	1832484-06	1,2,4-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-19-5	1832484-06	Trichlorofluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-19-5	1832484-06	1,1,2-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-19-5	1832484-06	1,1,1-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-19-5	1832484-06	Carbon disulfide	10/21/2018	1	Y	n	u		1.0	0.48	ug/L
MW-19-5	1832484-06	1,1,2,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-19-5	1832484-06	Methyl methacrylate	10/21/2018	5	Y	n	u		5.0	1.2	ug/L
MW-19-5	1832484-06	1,2,3-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-19-5	1832484-06	Tetrachloroethene	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-19-5	1832484-06	Toluene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-19-5	1832484-06	1,2,3-Trichloropropane	10/21/2018	1	Y	n	u		1.0	0.78	ug/L
MW-19-5	1832484-06	Propionitrile	10/21/2018	20	Y	n	u		20	6.2	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-19-5	1832484-06	Nitrobenzene	10/21/2018	0	Y	y	v				ug/L
MW-19-5	1832484-06	Methyl acrylate	10/21/2018	0	Y	y	v				ug/L
MW-19-5	1832484-06	1,1-Dichloropropanone	10/21/2018	0	Y	y	v				ug/L
MW-19-5	1832484-06	1-Chlorobutane	10/21/2018	0	Y	y	v				ug/L
MW-19-5	1832484-06	Dichlorodifluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-19-5	1832484-06	1,1,1,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-19-5	1832484-06	Chloroacetonitrile	10/21/2018	0	Y	y	v				ug/L
MW-19-5	1832484-06	o-Xylene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-19-5	1832484-06	Methyl iodide	10/21/2018	2	Y	n	u		2.0	1.1	ug/L
MW-19-5	1832484-06	Tetrahydrofuran	10/21/2018	20	Y	n	u		20	5.2	ug/L
MW-19-5	1832484-06	trans-1,4-Dichloro-2-butene	10/21/2018	5	Y	n	u	UJ	5.0	1.8	ug/L
MW-19-5	1832484-06	Pentachloroethane	10/21/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-19-5	1832484-06	Methyl isobutyl ketone	10/21/2018	10	Y	n	u		10	2.4	ug/L
MW-19-5	1832484-06	Methyl ethyl ketone	10/21/2018	10	Y	n	u		10	3.3	ug/L
MW-19-5	1832484-06	Methacrylonitrile	10/21/2018	10	Y	n	u		10	2.3	ug/L
MW-19-5	1832484-06	2-Hexanone	10/21/2018	10	Y	n	u		10	5.0	ug/L
MW-19-5	1832484-06	Hexachloroethane	10/21/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
MW-19-5	1832484-06	Ethyl t-butyl ether	10/21/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
MW-19-5	1832484-06	Ethyl methacrylate	10/21/2018	4	Y	n	u		4.0	1.3	ug/L
MW-19-5	1832484-06	Diethyl ether	10/21/2018	2	Y	n	u		2.0	0.33	ug/L
MW-19-5	1832484-06	p- & m-Xylenes	10/21/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-19-5	1832484-06	Carbon tetrachloride	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-19-5	1832484-06	Dibromomethane	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-19-5	1832484-06	1,2-Dibromoethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-19-5	1832484-06	1,2-Dibromo-3-chloropropane	10/21/2018	1	Y	n	u		1.0	0.89	ug/L



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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-19-5	1832484-06	Dibromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-19-5	1832484-06	4-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-19-5	1832484-06	2-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-19-5	1832484-06	Chloromethane	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-19-5	1832484-06	Chloroform	10/21/2018	2.1	Y	y	v		0.50	0.14	ug/L
MW-19-5	1832484-06	1,2-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-19-5	1832484-06	Chlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-19-5	1832484-06	1,4-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-19-5	1832484-06	tert-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-19-5	1832484-06	sec-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-19-5	1832484-06	n-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-19-5	1832484-06	Benzene	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-19-5	1832484-06	Bromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-19-5	1832484-06	Bromoform	10/21/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-19-5	1832484-06	2-Nitropropane	10/21/2018	0	Y	y	v				ug/L
MW-19-5	1832484-06	Bromomethane	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-19-5	1832484-06	Chloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-19-5	1832484-06	1,1-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-19-5	1832484-06	n-Propylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-19-5	1832484-06	Naphthalene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-19-5	1832484-06	Methyl t-butyl ether	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-19-5	1832484-06	Methylene chloride	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-19-5	1832484-06	p-Isopropyltoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-19-5	1832484-06	Isopropylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-19-5	1832484-06	Hexachlorobutadiene	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-19-5	1832484-06	Ethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-19-5	1832484-06	1,2-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-19-5	1832484-06	cis-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-19-5	1832484-06	1,3-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-19-5	1832484-06	2,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-19-5	1832484-06	1,3-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-19-5	1832484-06	1,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-19-5	1832484-06	trans-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-19-5	1832484-06	cis-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-19-5	1832484-06	1,1-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-19-5	1832484-06	Bromobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-19-5	1832484-06	1,1-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-19-5	1832484-06	Styrene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-19-5	1832484-06	trans-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-19-5	1832484-06	Bromodichloromethane	10/21/2018	0.24	Y	y	v j		0.50	0.20	ug/L
MW-20-2	1832484-05	1,2,4-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-20-2	1832484-05	Diethyl ether	10/21/2018	2	Y	n	u		2.0	0.33	ug/L
MW-20-2	1832484-05	trans-1,4-Dichloro-2-butene	10/21/2018	5	Y	n	u	UJ	5.0	1.8	ug/L
MW-20-2	1832484-05	Carbon disulfide	10/21/2018	1	Y	n	u		1.0	0.48	ug/L
MW-20-2	1832484-05	t-Butyl alcohol	10/21/2018	10	Y	n	u		10	9.4	ug/L
MW-20-2	1832484-05	t-Amyl Methyl ether	10/21/2018	0.5	Y	n	u	UJ	0.50	0.19	ug/L
MW-20-2	1832484-05	Allyl chloride	10/21/2018	5	Y	n	u		5.0	0.47	ug/L
MW-20-2	1832484-05	Acrylonitrile	10/21/2018	5	Y	n	u		5.0	1.5	ug/L
MW-20-2	1832484-05	Acetone	10/21/2018	10	Y	n	u		10	6.6	ug/L
MW-20-2	1832484-05	Bromodichloromethane	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-20-2	1832484-05	1,3,5-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-20-2	1832484-05	Hexachloroethane	10/21/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
MW-20-2	1832484-05	1,1,2-Trichloro-1,2,2-trifluoroethane	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-20-2	1832484-05	1,2,3-Trichloropropane	10/21/2018	1	Y	n	u		1.0	0.78	ug/L
MW-20-2	1832484-05	Trichlorofluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-20-2	1832484-05	Trichloroethene	10/21/2018	0.3	Y	y	v j		0.50	0.19	ug/L
MW-20-2	1832484-05	1,1,2-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-20-2	1832484-05	1,1,1-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-20-2	1832484-05	1,2,4-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-20-2	1832484-05	1,2,3-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-20-2	1832484-05	Vinyl chloride	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-20-2	1832484-05	Tetrahydrofuran	10/21/2018	20	Y	n	u		20	5.2	ug/L
MW-20-2	1832484-05	Bromobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-20-2	1832484-05	Bromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-20-2	1832484-05	2-Nitropropane	10/21/2018	0	Y	y	v				ug/L
MW-20-2	1832484-05	Nitrobenzene	10/21/2018	0	Y	y	v				ug/L
MW-20-2	1832484-05	Methyl acrylate	10/21/2018	0	Y	y	v				ug/L
MW-20-2	1832484-05	1,1-Dichloropropanone	10/21/2018	0	Y	y	v				ug/L
MW-20-2	1832484-05	1-Chlorobutane	10/21/2018	0	Y	y	v				ug/L
MW-20-2	1832484-05	Chloroacetonitrile	10/21/2018	0	Y	y	v				ug/L
MW-20-2	1832484-05	Ethyl methacrylate	10/21/2018	4	Y	n	u		4.0	1.3	ug/L
MW-20-2	1832484-05	p- & m-Xylenes	10/21/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-20-2	1832484-05	Ethyl t-butyl ether	10/21/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
MW-20-2	1832484-05	Propionitrile	10/21/2018	20	Y	n	u		20	6.2	ug/L
MW-20-2	1832484-05	Pentachloroethane	10/21/2018	2	Y	n	u	UJ	2.0	0.63	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-20-2	1832484-05	Methyl methacrylate	10/21/2018	5	Y	n	u		5.0	1.2	ug/L
MW-20-2	1832484-05	Methyl isobutyl ketone	10/21/2018	10	Y	n	u		10	2.4	ug/L
MW-20-2	1832484-05	Methyl iodide	10/21/2018	2	Y	n	u		2.0	1.1	ug/L
MW-20-2	1832484-05	Methyl ethyl ketone	10/21/2018	10	Y	n	u		10	3.3	ug/L
MW-20-2	1832484-05	Methacrylonitrile	10/21/2018	10	Y	n	u		10	2.3	ug/L
MW-20-2	1832484-05	2-Hexanone	10/21/2018	10	Y	n	u		10	5.0	ug/L
MW-20-2	1832484-05	1,1,2,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-20-2	1832484-05	o-Xylene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-20-2	1832484-05	Chloromethane	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-20-2	1832484-05	Toluene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-20-2	1832484-05	1,4-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-20-2	1832484-05	1,3-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-20-2	1832484-05	1,2-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-20-2	1832484-05	Dibromomethane	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-20-2	1832484-05	1,2-Dibromoethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-20-2	1832484-05	1,2-Dibromo-3-chloropropane	10/21/2018	1	Y	n	u		1.0	0.89	ug/L
MW-20-2	1832484-05	Dibromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-20-2	1832484-05	1,1-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-20-2	1832484-05	2-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-20-2	1832484-05	1,2-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-20-2	1832484-05	Chloroform	10/21/2018	0.22	Y	y	v j		0.50	0.14	ug/L
MW-20-2	1832484-05	Chloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-20-2	1832484-05	Chlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-20-2	1832484-05	Carbon tetrachloride	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-20-2	1832484-05	tert-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-20-2	1832484-05	sec-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-20-2	1832484-05	n-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-20-2	1832484-05	Bromomethane	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-20-2	1832484-05	Bromoform	10/21/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-20-2	1832484-05	4-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-20-2	1832484-05	Ethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-20-2	1832484-05	Benzene	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-20-2	1832484-05	1,1,1,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-20-2	1832484-05	Styrene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-20-2	1832484-05	n-Propylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-20-2	1832484-05	Naphthalene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-20-2	1832484-05	Methyl t-butyl ether	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-20-2	1832484-05	Methylene chloride	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-20-2	1832484-05	p-Isopropyltoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-20-2	1832484-05	Dichlorodifluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-20-2	1832484-05	Hexachlorobutadiene	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-20-2	1832484-05	Tetrachloroethene	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-20-2	1832484-05	trans-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-20-2	1832484-05	cis-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-20-2	1832484-05	1,1-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-20-2	1832484-05	2,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-20-2	1832484-05	1,3-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-20-2	1832484-05	1,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-20-2	1832484-05	trans-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-20-2	1832484-05	cis-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-20-2	1832484-05	1,1-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-20-2	1832484-05	Isopropylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-20-3	1832484-04	cis-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-20-3	1832484-04	Dichlorodifluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-20-3	1832484-04	1,1-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-20-3	1832484-04	1,2-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-20-3	1832484-04	1,1-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-20-3	1832484-04	cis-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-20-3	1832484-04	trans-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-20-3	1832484-04	1,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-20-3	1832484-04	1,3-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-20-3	1832484-04	2-Nitropropane	10/21/2018	0	Y	y	v				ug/L
MW-20-3	1832484-04	1,1-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-20-3	1832484-04	1,2-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-20-3	1832484-04	trans-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-20-3	1832484-04	Ethylbenzene	10/21/2018	0.15	Y	y	v j		0.50	0.15	ug/L
MW-20-3	1832484-04	Hexachlorobutadiene	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-20-3	1832484-04	Isopropylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-20-3	1832484-04	p-Isopropyltoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-20-3	1832484-04	Methylene chloride	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-20-3	1832484-04	Methyl t-butyl ether	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-20-3	1832484-04	Naphthalene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-20-3	1832484-04	2,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-20-3	1832484-04	Chloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-20-3	1832484-04	Benzene	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-20-3	1832484-04	Bromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-20-3	1832484-04	Bromodichloromethane	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-20-3	1832484-04	Bromoform	10/21/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-20-3	1832484-04	Bromomethane	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-20-3	1832484-04	n-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-20-3	1832484-04	sec-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-20-3	1832484-04	tert-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-20-3	1832484-04	1,4-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-20-3	1832484-04	Chlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-20-3	1832484-04	1,3-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-20-3	1832484-04	Chloroform	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-20-3	1832484-04	Chloromethane	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-20-3	1832484-04	2-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-20-3	1832484-04	4-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-20-3	1832484-04	Dibromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-20-3	1832484-04	1,2-Dibromo-3-chloropropane	10/21/2018	1	Y	n	u		1.0	0.89	ug/L
MW-20-3	1832484-04	1,2-Dibromoethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-20-3	1832484-04	Dibromomethane	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-20-3	1832484-04	1,1,1,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-20-3	1832484-04	Carbon tetrachloride	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-20-3	1832484-04	Pentachloroethane	10/21/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-20-3	1832484-04	n-Propylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-20-3	1832484-04	Ethyl methacrylate	10/21/2018	4	Y	n	u		4.0	1.3	ug/L
MW-20-3	1832484-04	Ethyl t-butyl ether	10/21/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
MW-20-3	1832484-04	Hexachloroethane	10/21/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-20-3	1832484-04	2-Hexanone	10/21/2018	10	Y	n	u		10	5.0	ug/L
MW-20-3	1832484-04	Methacrylonitrile	10/21/2018	10	Y	n	u		10	2.3	ug/L
MW-20-3	1832484-04	Methyl ethyl ketone	10/21/2018	10	Y	n	u		10	3.3	ug/L
MW-20-3	1832484-04	Methyl iodide	10/21/2018	2	Y	n	u		2.0	1.1	ug/L
MW-20-3	1832484-04	trans-1,4-Dichloro-2-butene	10/21/2018	5	Y	n	u	UJ	5.0	1.8	ug/L
MW-20-3	1832484-04	Methyl methacrylate	10/21/2018	5	Y	n	u		5.0	1.2	ug/L
MW-20-3	1832484-04	Carbon disulfide	10/21/2018	1	Y	n	u		1.0	0.48	ug/L
MW-20-3	1832484-04	Propionitrile	10/21/2018	20	Y	n	u		20	6.2	ug/L
MW-20-3	1832484-04	Tetrahydrofuran	10/21/2018	20	Y	n	u		20	5.2	ug/L
MW-20-3	1832484-04	p- & m-Xylenes	10/21/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-20-3	1832484-04	o-Xylene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-20-3	1832484-04	Chloroacetonitrile	10/21/2018	0	Y	y	v				ug/L
MW-20-3	1832484-04	1-Chlorobutane	10/21/2018	0	Y	y	v				ug/L
MW-20-3	1832484-04	1,1-Dichloropropanone	10/21/2018	0	Y	y	v				ug/L
MW-20-3	1832484-04	Methyl acrylate	10/21/2018	0	Y	y	v				ug/L
MW-20-3	1832484-04	Bromobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-20-3	1832484-04	Methyl isobutyl ketone	10/21/2018	10	Y	n	u		10	2.4	ug/L
MW-20-3	1832484-04	1,2,3-Trichloropropane	10/21/2018	1	Y	n	u		1.0	0.78	ug/L
MW-20-3	1832484-04	Nitrobenzene	10/21/2018	0	Y	y	v				ug/L
MW-20-3	1832484-04	1,1,2,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-20-3	1832484-04	Tetrachloroethene	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-20-3	1832484-04	Toluene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-20-3	1832484-04	1,2,3-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-20-3	1832484-04	1,2,4-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-20-3	1832484-04	1,1,1-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L



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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-20-3	1832484-04	1,1,2-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-20-3	1832484-04	Diethyl ether	10/21/2018	2	Y	n	u		2.0	0.33	ug/L
MW-20-3	1832484-04	Trichlorofluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-20-3	1832484-04	Styrene	10/21/2018	0.39	Y	y	v j		0.50	0.12	ug/L
MW-20-3	1832484-04	1,1,2-Trichloro-1,2,2-trifluoroethane	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-20-3	1832484-04	1,2,4-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-20-3	1832484-04	1,3,5-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-20-3	1832484-04	Vinyl chloride	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-20-3	1832484-04	Acetone	10/21/2018	10	Y	n	u		10	6.6	ug/L
MW-20-3	1832484-04	Acrylonitrile	10/21/2018	1.9	Y	y	v j		5.0	1.5	ug/L
MW-20-3	1832484-04	Allyl chloride	10/21/2018	5	Y	n	u		5.0	0.47	ug/L
MW-20-3	1832484-04	t-Amyl Methyl ether	10/21/2018	0.5	Y	n	u	UJ	0.50	0.19	ug/L
MW-20-3	1832484-04	t-Butyl alcohol	10/21/2018	10	Y	n	u		10	9.4	ug/L
MW-20-3	1832484-04	Trichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-20-4	1832484-03	Trichlorofluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-20-4	1832484-03	t-Butyl alcohol	10/21/2018	10	Y	n	u		10	9.4	ug/L
MW-20-4	1832484-03	t-Amyl Methyl ether	10/21/2018	0.5	Y	n	u	UJ	0.50	0.19	ug/L
MW-20-4	1832484-03	Allyl chloride	10/21/2018	5	Y	n	u		5.0	0.47	ug/L
MW-20-4	1832484-03	Acrylonitrile	10/21/2018	5	Y	n	u		5.0	1.5	ug/L
MW-20-4	1832484-03	Acetone	10/21/2018	10	Y	n	u		10	6.6	ug/L
MW-20-4	1832484-03	Vinyl chloride	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-20-4	1832484-03	1,3,5-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-20-4	1832484-03	1,2,4-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-20-4	1832484-03	1,1,1,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-20-4	1832484-03	1,2,3-Trichloropropane	10/21/2018	1	Y	n	u		1.0	0.78	ug/L

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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-20-4	1832484-03	Diethyl ether	10/21/2018	2	Y	n	u		2.0	0.33	ug/L
MW-20-4	1832484-03	Trichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-20-4	1832484-03	1,1,2-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-20-4	1832484-03	1,1,1-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-20-4	1832484-03	1,2,4-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-20-4	1832484-03	1,2,3-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-20-4	1832484-03	Toluene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-20-4	1832484-03	Tetrachloroethene	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-20-4	1832484-03	2-Nitropropane	10/21/2018	0	Y	y	v				ug/L
MW-20-4	1832484-03	1,1,2-Trichloro-1,2,2-trifluoroethane	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-20-4	1832484-03	Methyl methacrylate	10/21/2018	5	Y	n	u		5.0	1.2	ug/L
MW-20-4	1832484-03	Nitrobenzene	10/21/2018	0	Y	y	v				ug/L
MW-20-4	1832484-03	Methyl acrylate	10/21/2018	0	Y	y	v				ug/L
MW-20-4	1832484-03	1,1-Dichloropropanone	10/21/2018	0	Y	y	v				ug/L
MW-20-4	1832484-03	1-Chlorobutane	10/21/2018	0	Y	y	v				ug/L
MW-20-4	1832484-03	Chloroacetonitrile	10/21/2018	0	Y	y	v				ug/L
MW-20-4	1832484-03	o-Xylene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-20-4	1832484-03	p- & m-Xylenes	10/21/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-20-4	1832484-03	Tetrahydrofuran	10/21/2018	20	Y	n	u		20	5.2	ug/L
MW-20-4	1832484-03	Carbon disulfide	10/21/2018	1	Y	n	u		1.0	0.48	ug/L
MW-20-4	1832484-03	Pentachloroethane	10/21/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-20-4	1832484-03	trans-1,4-Dichloro-2-butene	10/21/2018	5	Y	n	u	UJ	5.0	1.8	ug/L
MW-20-4	1832484-03	Methyl isobutyl ketone	10/21/2018	10	Y	n	u		10	2.4	ug/L
MW-20-4	1832484-03	Methyl iodide	10/21/2018	2	Y	n	u		2.0	1.1	ug/L
MW-20-4	1832484-03	Methyl ethyl ketone	10/21/2018	10	Y	n	u		10	3.3	ug/L

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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-20-4	1832484-03	Methacrylonitrile	10/21/2018	10	Y	n	u		10	2.3	ug/L
MW-20-4	1832484-03	2-Hexanone	10/21/2018	10	Y	n	u		10	5.0	ug/L
MW-20-4	1832484-03	Hexachloroethane	10/21/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
MW-20-4	1832484-03	Ethyl t-butyl ether	10/21/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
MW-20-4	1832484-03	Ethyl methacrylate	10/21/2018	4	Y	n	u		4.0	1.3	ug/L
MW-20-4	1832484-03	Styrene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-20-4	1832484-03	Propionitrile	10/21/2018	20	Y	n	u		20	6.2	ug/L
MW-20-4	1832484-03	Chlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-20-4	1832484-03	1,2-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-20-4	1832484-03	Dibromomethane	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-20-4	1832484-03	1,2-Dibromoethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-20-4	1832484-03	1,2-Dibromo-3-chloropropane	10/21/2018	1	Y	n	u		1.0	0.89	ug/L
MW-20-4	1832484-03	Dibromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-20-4	1832484-03	4-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-20-4	1832484-03	2-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-20-4	1832484-03	Chloromethane	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-20-4	1832484-03	1,1,2,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-20-4	1832484-03	Chloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-20-4	1832484-03	Dichlorodifluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-20-4	1832484-03	Carbon tetrachloride	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-20-4	1832484-03	tert-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-20-4	1832484-03	sec-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-20-4	1832484-03	n-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-20-4	1832484-03	Bromomethane	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-20-4	1832484-03	Bromoform	10/21/2018	0.5	Y	n	u		0.50	0.46	ug/L

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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-20-4	1832484-03	Bromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-20-4	1832484-03	Benzene	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-20-4	1832484-03	Chloroform	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-20-4	1832484-03	1,1-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-20-4	1832484-03	n-Propylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-20-4	1832484-03	Naphthalene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-20-4	1832484-03	Methyl t-butyl ether	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-20-4	1832484-03	Methylene chloride	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-20-4	1832484-03	p-Isopropyltoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-20-4	1832484-03	Isopropylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-20-4	1832484-03	Hexachlorobutadiene	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-20-4	1832484-03	Ethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-20-4	1832484-03	1,3-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-20-4	1832484-03	cis-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-20-4	1832484-03	1,4-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-20-4	1832484-03	2,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-20-4	1832484-03	1,3-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-20-4	1832484-03	1,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-20-4	1832484-03	trans-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-20-4	1832484-03	cis-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-20-4	1832484-03	1,1-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-20-4	1832484-03	1,2-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-20-4	1832484-03	1,1-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-20-4	1832484-03	Bromodichloromethane	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-20-4	1832484-03	trans-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L

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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-20-4	1832484-03	Bromobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-20-5	1832484-02	Trichlorofluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-20-5	1832484-02	t-Butyl alcohol	10/21/2018	10	Y	n	u		10	9.4	ug/L
MW-20-5	1832484-02	t-Amyl Methyl ether	10/21/2018	0.5	Y	n	u	UJ	0.50	0.19	ug/L
MW-20-5	1832484-02	Allyl chloride	10/21/2018	5	Y	n	u		5.0	0.47	ug/L
MW-20-5	1832484-02	Acrylonitrile	10/21/2018	5	Y	n	u		5.0	1.5	ug/L
MW-20-5	1832484-02	Acetone	10/21/2018	10	Y	n	u		10	6.6	ug/L
MW-20-5	1832484-02	Vinyl chloride	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-20-5	1832484-02	1,3,5-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-20-5	1832484-02	1,2,4-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-20-5	1832484-02	2-Nitropropane	10/21/2018	0	Y	y	v				ug/L
MW-20-5	1832484-02	1,2,3-Trichloropropane	10/21/2018	1	Y	n	u		1.0	0.78	ug/L
MW-20-5	1832484-02	Diethyl ether	10/21/2018	2	Y	n	u		2.0	0.33	ug/L
MW-20-5	1832484-02	Trichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-20-5	1832484-02	1,1,2-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-20-5	1832484-02	1,2,4-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-20-5	1832484-02	Toluene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-20-5	1832484-02	Tetrachloroethene	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-20-5	1832484-02	1,1,2,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-20-5	1832484-02	1,1,1,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-20-5	1832484-02	1,1,2-Trichloro-1,2,2-trifluoroethane	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-20-5	1832484-02	Methyl methacrylate	10/21/2018	5	Y	n	u		5.0	1.2	ug/L
MW-20-5	1832484-02	Nitrobenzene	10/21/2018	0	Y	y	v				ug/L
MW-20-5	1832484-02	Methyl acrylate	10/21/2018	0	Y	y	v				ug/L
MW-20-5	1832484-02	1,1-Dichloropropanone	10/21/2018	0	Y	y	v				ug/L

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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-20-5	1832484-02	1-Chlorobutane	10/21/2018	0	Y	y	v				ug/L
MW-20-5	1832484-02	Chloroacetonitrile	10/21/2018	0	Y	y	v				ug/L
MW-20-5	1832484-02	o-Xylene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-20-5	1832484-02	p- & m-Xylenes	10/21/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-20-5	1832484-02	Tetrahydrofuran	10/21/2018	20	Y	n	u		20	5.2	ug/L
MW-20-5	1832484-02	Carbon disulfide	10/21/2018	1	Y	n	u		1.0	0.48	ug/L
MW-20-5	1832484-02	Pentachloroethane	10/21/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-20-5	1832484-02	trans-1,4-Dichloro-2-butene	10/21/2018	5	Y	n	u	UJ	5.0	1.8	ug/L
MW-20-5	1832484-02	Methyl isobutyl ketone	10/21/2018	10	Y	n	u		10	2.4	ug/L
MW-20-5	1832484-02	Methyl iodide	10/21/2018	2	Y	n	u		2.0	1.1	ug/L
MW-20-5	1832484-02	Methyl ethyl ketone	10/21/2018	10	Y	n	u		10	3.3	ug/L
MW-20-5	1832484-02	Methacrylonitrile	10/21/2018	10	Y	n	u		10	2.3	ug/L
MW-20-5	1832484-02	2-Hexanone	10/21/2018	10	Y	n	u		10	5.0	ug/L
MW-20-5	1832484-02	Hexachloroethane	10/21/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
MW-20-5	1832484-02	Ethyl t-butyl ether	10/21/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
MW-20-5	1832484-02	Ethyl methacrylate	10/21/2018	4	Y	n	u		4.0	1.3	ug/L
MW-20-5	1832484-02	Naphthalene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-20-5	1832484-02	Propionitrile	10/21/2018	20	Y	n	u		20	6.2	ug/L
MW-20-5	1832484-02	Carbon tetrachloride	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-20-5	1832484-02	Styrene	10/21/2018	0.18	Y	y	v j		0.50	0.12	ug/L
MW-20-5	1832484-02	1,2-Dibromoethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-20-5	1832484-02	1,2-Dibromo-3-chloropropane	10/21/2018	1	Y	n	u		1.0	0.89	ug/L
MW-20-5	1832484-02	Dibromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-20-5	1832484-02	4-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-20-5	1832484-02	2-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-20-5	1832484-02	Chloromethane	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-20-5	1832484-02	Chloroform	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-20-5	1832484-02	1,2-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-20-5	1832484-02	Chlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-20-5	1832484-02	1,3-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-20-5	1832484-02	tert-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-20-5	1832484-02	sec-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-20-5	1832484-02	n-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-20-5	1832484-02	Bromomethane	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-20-5	1832484-02	Bromoform	10/21/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-20-5	1832484-02	Bromodichloromethane	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-20-5	1832484-02	Bromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-20-5	1832484-02	Bromobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-20-5	1832484-02	Benzene	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-20-5	1832484-02	Chloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-20-5	1832484-02	2,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-20-5	1832484-02	1,1,1-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-20-5	1832484-02	Methyl t-butyl ether	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-20-5	1832484-02	Methylene chloride	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-20-5	1832484-02	p-Isopropyltoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-20-5	1832484-02	Isopropylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-20-5	1832484-02	Hexachlorobutadiene	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-20-5	1832484-02	Ethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-20-5	1832484-02	trans-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-20-5	1832484-02	Dibromomethane	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-20-5	1832484-02	1,1-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-20-5	1832484-02	n-Propylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-20-5	1832484-02	1,3-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-20-5	1832484-02	1,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-20-5	1832484-02	trans-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-20-5	1832484-02	cis-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-20-5	1832484-02	1,1-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-20-5	1832484-02	1,2-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-20-5	1832484-02	1,1-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-20-5	1832484-02	Dichlorodifluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-20-5	1832484-02	1,4-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-20-5	1832484-02	cis-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-20-5	1832484-02	1,2,3-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
SB-1-101518	1832484-13	n-Propylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
SB-1-101518	1832484-13	Trichlorofluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
SB-1-101518	1832484-13	Trichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
SB-1-101518	1832484-13	1,1,2-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
SB-1-101518	1832484-13	1,1,1-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
SB-1-101518	1832484-13	1,2,4-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
SB-1-101518	1832484-13	1,2,3-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
SB-1-101518	1832484-13	Toluene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
SB-1-101518	1832484-13	Tetrachloroethene	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
SB-1-101518	1832484-13	1,1,2,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
SB-1-101518	1832484-13	Methyl iodide	10/21/2018	2	Y	n	u		2.0	1.1	ug/L
SB-1-101518	1832484-13	Styrene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L



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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
SB-1-101518	1832484-13	1,2,4-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
SB-1-101518	1832484-13	Naphthalene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
SB-1-101518	1832484-13	Methyl t-butyl ether	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
SB-1-101518	1832484-13	Methylene chloride	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
SB-1-101518	1832484-13	p-Isopropyltoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
SB-1-101518	1832484-13	Isopropylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
SB-1-101518	1832484-13	Hexachlorobutadiene	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
SB-1-101518	1832484-13	Ethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
SB-1-101518	1832484-13	trans-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
SB-1-101518	1832484-13	cis-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
SB-1-101518	1832484-13	1,1,1,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
SB-1-101518	1832484-13	Diethyl ether	10/21/2018	2	Y	n	u		2.0	0.33	ug/L
SB-1-101518	1832484-13	Methyl isobutyl ketone	10/21/2018	10	Y	n	u		10	2.4	ug/L
SB-1-101518	1832484-13	Methyl methacrylate	10/21/2018	5	Y	n	u		5.0	1.2	ug/L
SB-1-101518	1832484-13	Pentachloroethane	10/21/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
SB-1-101518	1832484-13	Propionitrile	10/21/2018	20	Y	n	u		20	6.2	ug/L
SB-1-101518	1832484-13	p- & m-Xylenes	10/21/2018	0.5	Y	n	u		0.50	0.34	ug/L
SB-1-101518	1832484-13	Methyl ethyl ketone	10/21/2018	10	Y	n	u		10	3.3	ug/L
SB-1-101518	1832484-13	Tetrahydrofuran	10/21/2018	20	Y	n	u		20	5.2	ug/L
SB-1-101518	1832484-13	2-Hexanone	10/21/2018	10	Y	n	u		10	5.0	ug/L
SB-1-101518	1832484-13	Hexachloroethane	10/21/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
SB-1-101518	1832484-13	1,2,3-Trichloropropane	10/21/2018	1	Y	n	u		1.0	0.78	ug/L
SB-1-101518	1832484-13	Ethyl methacrylate	10/21/2018	4	Y	n	u		4.0	1.3	ug/L
SB-1-101518	1832484-13	1,1,2-Trichloro-1,2,2-trifluoroethane	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
SB-1-101518	1832484-13	trans-1,4-Dichloro-2-butene	10/21/2018	5	Y	n	u	UJ	5.0	1.8	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
SB-1-101518	1832484-13	Carbon disulfide	10/21/2018	1	Y	n	u		1.0	0.48	ug/L
SB-1-101518	1832484-13	t-Butyl alcohol	10/21/2018	10	Y	n	u		10	9.4	ug/L
SB-1-101518	1832484-13	t-Amyl Methyl ether	10/21/2018	0.5	Y	n	u	UJ	0.50	0.19	ug/L
SB-1-101518	1832484-13	Allyl chloride	10/21/2018	5	Y	n	u		5.0	0.47	ug/L
SB-1-101518	1832484-13	Acrylonitrile	10/21/2018	5	Y	n	u		5.0	1.5	ug/L
SB-1-101518	1832484-13	Acetone	10/21/2018	10	Y	n	u		10	6.6	ug/L
SB-1-101518	1832484-13	Vinyl chloride	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
SB-1-101518	1832484-13	1,3,5-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
SB-1-101518	1832484-13	Methacrylonitrile	10/21/2018	10	Y	n	u		10	2.3	ug/L
SB-1-101518	1832484-13	Ethyl t-butyl ether	10/21/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
SB-1-101518	1832484-13	Bromobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
SB-1-101518	1832484-13	Chloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
SB-1-101518	1832484-13	Chlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
SB-1-101518	1832484-13	Carbon tetrachloride	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
SB-1-101518	1832484-13	tert-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
SB-1-101518	1832484-13	sec-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
SB-1-101518	1832484-13	n-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
SB-1-101518	1832484-13	Bromomethane	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
SB-1-101518	1832484-13	Chloroform	10/21/2018	0.21	Y	y	v j		0.50	0.14	ug/L
SB-1-101518	1832484-13	Bromodichloromethane	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
SB-1-101518	1832484-13	Bromoform	10/21/2018	0.5	Y	n	u		0.50	0.46	ug/L
SB-1-101518	1832484-13	Benzene	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
SB-1-101518	1832484-13	2-Nitropropane	10/21/2018	0	Y	y	v				ug/L
SB-1-101518	1832484-13	Methyl acrylate	10/21/2018	0	Y	y	v				ug/L
SB-1-101518	1832484-13	Chloroacetonitrile	10/21/2018	0	Y	y	v				ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
SB-1-101518	1832484-13	1-Chlorobutane	10/21/2018	0	Y	y	v				ug/L
SB-1-101518	1832484-13	1,1-Dichloropropanone	10/21/2018	0	Y	y	v				ug/L
SB-1-101518	1832484-13	Nitrobenzene	10/21/2018	0	Y	y	v				ug/L
SB-1-101518	1832484-13	1,1-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
SB-1-101518	1832484-13	o-Xylene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
SB-1-101518	1832484-13	1,1-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
SB-1-101518	1832484-13	2,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
SB-1-101518	1832484-13	1,3-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
SB-1-101518	1832484-13	1,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
SB-1-101518	1832484-13	trans-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
SB-1-101518	1832484-13	Bromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
SB-1-101518	1832484-13	cis-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
SB-1-101518	1832484-13	Chloromethane	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
SB-1-101518	1832484-13	1,2-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
SB-1-101518	1832484-13	1,1-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
SB-1-101518	1832484-13	1,2-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
SB-1-101518	1832484-13	Dibromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
SB-1-101518	1832484-13	Dichlorodifluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
SB-1-101518	1832484-13	1,2-Dibromoethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
SB-1-101518	1832484-13	4-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.093	ug/L
SB-1-101518	1832484-13	Dibromomethane	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
SB-1-101518	1832484-13	1,2-Dibromo-3-chloropropane	10/21/2018	1	Y	n	u		1.0	0.89	ug/L
SB-1-101518	1832484-13	2-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
SB-1-101518	1832484-13	1,3-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
SB-1-101518	1832484-13	1,4-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
TB-1-101518	1832484-01	1,1,1-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
TB-1-101518	1832484-01	cis-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-1-101518	1832484-01	1,1-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
TB-1-101518	1832484-01	Ethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-1-101518	1832484-01	Hexachlorobutadiene	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
TB-1-101518	1832484-01	Isopropylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-1-101518	1832484-01	p-Isopropyltoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-1-101518	1832484-01	2,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
TB-1-101518	1832484-01	trans-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
TB-1-101518	1832484-01	Methylene chloride	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
TB-1-101518	1832484-01	1,1,1,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
TB-1-101518	1832484-01	Naphthalene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
TB-1-101518	1832484-01	n-Propylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
TB-1-101518	1832484-01	Styrene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
TB-1-101518	1832484-01	1,1,2,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-1-101518	1832484-01	Tetrachloroethene	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
TB-1-101518	1832484-01	Toluene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-1-101518	1832484-01	1,2,3-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
TB-1-101518	1832484-01	1,2,4-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-1-101518	1832484-01	1,3-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
TB-1-101518	1832484-01	Methyl t-butyl ether	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-1-101518	1832484-01	1,2-Dibromoethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
TB-1-101518	1832484-01	sec-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
TB-1-101518	1832484-01	tert-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
TB-1-101518	1832484-01	Carbon tetrachloride	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
TB-1-101518	1832484-01	Chlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-1-101518	1832484-01	Chloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-1-101518	1832484-01	Chloroform	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-1-101518	1832484-01	Chloromethane	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
TB-1-101518	1832484-01	Methyl iodide	10/21/2018	2	Y	n	u		2.0	1.1	ug/L
TB-1-101518	1832484-01	2-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-1-101518	1832484-01	1,1,2-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
TB-1-101518	1832484-01	4-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.093	ug/L
TB-1-101518	1832484-01	1,2-Dibromo-3-chloropropane	10/21/2018	1	Y	n	u		1.0	0.89	ug/L
TB-1-101518	1832484-01	1,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-1-101518	1832484-01	Dibromomethane	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
TB-1-101518	1832484-01	1,2-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
TB-1-101518	1832484-01	1,3-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
TB-1-101518	1832484-01	1,4-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-1-101518	1832484-01	Dichlorodifluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-1-101518	1832484-01	1,1-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-1-101518	1832484-01	1,2-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-1-101518	1832484-01	1,1-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
TB-1-101518	1832484-01	cis-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
TB-1-101518	1832484-01	trans-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-1-101518	1832484-01	Dibromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
TB-1-101518	1832484-01	Nitrobenzene	10/21/2018	0	Y	y	v				ug/L
TB-1-101518	1832484-01	Trichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
TB-1-101518	1832484-01	Propionitrile	10/21/2018	20	Y	n	u		20	6.2	ug/L
TB-1-101518	1832484-01	Methacrylonitrile	10/21/2018	10	Y	n	u		10	2.3	ug/L

SDG: 1832484

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
TB-1-101518	1832484-01	p- & m-Xylenes	10/21/2018	0.5	Y	n	u		0.50	0.34	ug/L
TB-1-101518	1832484-01	o-Xylene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
TB-1-101518	1832484-01	Chloroacetonitrile	10/21/2018	0	Y	y	v				ug/L
TB-1-101518	1832484-01	1-Chlorobutane	10/21/2018	0	Y	y	v				ug/L
TB-1-101518	1832484-01	Methyl methacrylate	10/21/2018	5	Y	n	u		5.0	1.2	ug/L
TB-1-101518	1832484-01	Methyl acrylate	10/21/2018	0	Y	y	v				ug/L
TB-1-101518	1832484-01	Pentachloroethane	10/21/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
TB-1-101518	1832484-01	2-Nitropropane	10/21/2018	0	Y	y	v				ug/L
TB-1-101518	1832484-01	Bromobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-1-101518	1832484-01	Bromomethane	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
TB-1-101518	1832484-01	n-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-1-101518	1832484-01	Bromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
TB-1-101518	1832484-01	Bromodichloromethane	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
TB-1-101518	1832484-01	Bromoform	10/21/2018	0.5	Y	n	u		0.50	0.46	ug/L
TB-1-101518	1832484-01	Benzene	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
TB-1-101518	1832484-01	1,1-Dichloropropanone	10/21/2018	0	Y	y	v				ug/L
TB-1-101518	1832484-01	Allyl chloride	10/21/2018	5	Y	n	u		5.0	0.47	ug/L
TB-1-101518	1832484-01	1,2,3-Trichloropropane	10/21/2018	1	Y	n	u		1.0	0.78	ug/L
TB-1-101518	1832484-01	1,1,2-Trichloro-1,2,2-trifluoroethane	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
TB-1-101518	1832484-01	1,2,4-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-1-101518	1832484-01	1,3,5-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-1-101518	1832484-01	Vinyl chloride	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
TB-1-101518	1832484-01	Acetone	10/21/2018	10	Y	n	u		10	6.6	ug/L
TB-1-101518	1832484-01	Tetrahydrofuran	10/21/2018	20	Y	n	u		20	5.2	ug/L
TB-1-101518	1832484-01	Methyl isobutyl ketone	10/21/2018	10	Y	n	u		10	2.4	ug/L

SDG: 1832484

<b>Analytical Method</b>		EPA-524.2									
<b>Sample ID</b>	<b>Lab Sample ID</b>	<b>Chemical Name</b>	<b>Anal Date</b>	<b>Result</b>	<b>Report</b>	<b>Detect</b>	<b>Lab Qual</b>	<b>Val Qual</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
TB-1-101518	1832484-01	Acrylonitrile	10/21/2018	5	Y	n	u		5.0	1.5	ug/L
TB-1-101518	1832484-01	t-Amyl Methyl ether	10/21/2018	0.5	Y	n	u	UJ	0.50	0.19	ug/L
TB-1-101518	1832484-01	t-Butyl alcohol	10/21/2018	10	Y	n	u		10	9.4	ug/L
TB-1-101518	1832484-01	Carbon disulfide	10/21/2018	1	Y	n	u		1.0	0.48	ug/L
TB-1-101518	1832484-01	trans-1,4-Dichloro-2-butene	10/21/2018	5	Y	n	u	UJ	5.0	1.8	ug/L
TB-1-101518	1832484-01	Diethyl ether	10/21/2018	2	Y	n	u		2.0	0.33	ug/L
TB-1-101518	1832484-01	Ethyl methacrylate	10/21/2018	4	Y	n	u		4.0	1.3	ug/L
TB-1-101518	1832484-01	Ethyl t-butyl ether	10/21/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
TB-1-101518	1832484-01	Hexachloroethane	10/21/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
TB-1-101518	1832484-01	2-Hexanone	10/21/2018	10	Y	n	u		10	5.0	ug/L
TB-1-101518	1832484-01	Methyl ethyl ketone	10/21/2018	10	Y	n	u		10	3.3	ug/L
TB-1-101518	1832484-01	Trichlorofluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L

<b>Analytical Method</b>		EPA-7196									
<b>Sample ID</b>	<b>Lab Sample ID</b>	<b>Chemical Name</b>	<b>Anal Date</b>	<b>Result</b>	<b>Report</b>	<b>Detect</b>	<b>Lab Qual</b>	<b>Val Qual</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
DUP-1-4Q18	1832484-07	Hexavalent Chromium	10/15/2018	0.0027	Y	y	v		0.0020	0.0007	mg/L
EB-1-101518	1832484-12	Hexavalent Chromium	10/15/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
MW-19-1	1832484-11	Hexavalent Chromium	10/15/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
MW-19-2	1832484-10	Hexavalent Chromium	10/15/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
MW-19-3	1832484-09	Hexavalent Chromium	10/15/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
MW-19-4	1832484-08	Hexavalent Chromium	10/15/2018	0.0025	Y	y	v		0.0020	0.0007	mg/L
MW-19-5	1832484-06	Hexavalent Chromium	10/15/2018	0.0024	Y	y	v		0.0020	0.0007	mg/L
MW-20-2	1832484-05	Hexavalent Chromium	10/15/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
MW-20-3	1832484-04	Hexavalent Chromium	10/15/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
MW-20-4	1832484-03	Hexavalent Chromium	10/15/2018	0.002	Y	n	u		0.0020	0.0007	mg/L

SDG: 1832484

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<b>Analytical Method</b>											
EPA-7196											
<b>Sample ID</b>	<b>Lab Sample ID</b>	<b>Chemical Name</b>	<b>Anal Date</b>	<b>Result</b>	<b>Report</b>	<b>Detect</b>	<b>Lab Qual</b>	<b>Val Qual</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
MW-20-5	1832484-02	Hexavalent Chromium	10/15/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
SB-1-101518	1832484-13	Hexavalent Chromium	10/15/2018	0.002	Y	n	u		0.0020	0.0007	mg/L



## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** NASA JPL, 4Q2018

**LDC Report Date:** December 13, 2018

**Parameters:** Volatiles

**Validation Level:** Level III & IV

**Laboratory:** BC Laboratories, Inc.

**Sample Delivery Group (SDG):** 1832621

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
TB-2-101618	1832621-01	Water	10/16/18
MW-14-5	1832621-02	Water	10/16/18
MW-14-4	1832621-03	Water	10/16/18
MW-14-3	1832621-04	Water	10/16/18
MW-14-2	1832621-05	Water	10/16/18
MW-25-5	1832621-06	Water	10/16/18
MW-25-4	1832621-07	Water	10/16/18
MW-25-3	1832621-08	Water	10/16/18
MW-25-2	1832621-09	Water	10/16/18
MW-25-1**	1832621-10**	Water	10/16/18
EB-2-101618	1832621-11	Water	10/16/18
MW-14-4MS	1832621-03MS	Water	10/16/18
MW-14-4MSD	1832621-03MSD	Water	10/16/18
MW-25-3MS	1832621-08MS	Water	10/16/18
MW-25-3MSD	1832621-08MSD	Water	10/16/18

\*\*Indicates sample underwent Level IV validation

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) Method 524.2

All sample results were subjected to Level III data validation, which comprises an evaluation of quality control (QC) summary results. Samples appended with a double asterisk on the cover page were subjected to Level IV evaluation, which is comprised of the QC summary forms as well as the raw data, to confirm sample quantitation and identification.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated due to non-conformances discovered during data validation.
- U (Non-detected): The compound or analyte was analyzed for and positively identified by the laboratory; however the compound or analyte should be considered non-detected at the reported concentration due to the presence of contaminants detected in the associated blank(s).
- UJ (Non-detected estimated): The compound or analyte was reported as not detected by the laboratory; however the reported quantitation/detection limit is estimated due to non-conformances discovered during data validation.
- R (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

### I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

### II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

### III. Initial Calibration and Initial Calibration Verification

An initial calibration was performed as required by the method.

For compounds where average relative response factors (RRFs) were utilized, the percent relative standard deviations (%RSD) were less than or equal to 20.0%

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination ( $r^2$ ) were greater than or equal to 0.990.

Average relative response factors (RRF) for all compounds were within validation criteria.

The percent differences (%D) of the initial calibration verification (ICV) standard were less than or equal to 30.0% for all compounds with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
10/14/18	Pentachloroethane	36.1	All samples in SDG 1832621	UJ (all non-detects)	P

### IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

The percent differences (%D) were less than or equal to 30.0% for all compounds with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
10/21/18 (12Oct02)	Hexachloroethane	36.0	MW-14-4	UJ (all non-detects)	P

Date	Compound	%D	Associated Samples	Flag	A or P
10/21/18 (12Oct03)	tert-Amyl methyl ether trans-1,4-Dichloro-2-butene Ethyl tert-butyl ether Pentachloroethane	34.8 50.1 36.9 126	MW-14-4	UJ (all non-detects) UJ (all non-detects) UJ (all non-detects) UJ (all non-detects)	P
10/21/18 (21Oct32)	Bromomethane Hexachloroethane	58.2 38.2	TB-2-101618 MW-14-5 MW-14-3 MW-14-2 MW-25-5 MW-25-4 MW-25-2 MW-25-1** EB-2-101618	UJ (all non-detects) UJ (all non-detects)	P
10/21/18 (21Oct33)	Ethyl tert-butyl ether Methyl iodide Pentachloroethane	32.6 69.5 84.7	TB-2-101618 MW-14-5 MW-14-3 MW-14-2 MW-25-5 MW-25-4 MW-25-2 MW-25-1** EB-2-101618	UJ (all non-detects) UJ (all non-detects) UJ (all non-detects)	P
10/22/18 (20Oct02)	Bromomethane 2,2-Dichloropropane Hexachloroethane	67.2 32.8 36.1	MW-25-3	UJ (all non-detects) UJ (all non-detects) UJ (all non-detects)	P
10/22/18 (20Oct03)	Ethyl tert-butyl ether Methyl iodide Pentachloroethane	32.8 63.9 119	MW-25-3	UJ (all non-detects) UJ (all non-detects) UJ (all non-detects)	P

## V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## VI. Field Blanks

Sample TB-2-101618 was identified as a trip blank. No contaminants were found.

Sample EB-2-101618 was identified as an equipment blank. No contaminants were found.

## VII. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

### **VIII. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

### **IX. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

### **X. Field Duplicates**

No field duplicates were identified in this SDG.

### **XI. Internal Standards**

All internal standard areas and retention times were within QC limits.

### **XII. Compound Quantitation**

All compound quantitations met validation criteria for samples which underwent Level IV validation. Raw data were not reviewed for Level III validation.

### **XIII. Target Compound Identifications**

All target compound identifications met validation criteria for samples which underwent Level IV validation. Raw data were not reviewed for Level III validation.

### **XIV. System Performance**

The system performance was acceptable for samples which underwent Level IV validation. Raw data were not reviewed for Level III validation.

### **XV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to ICV and continuing calibration %D, data were qualified as estimated in eleven samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the data validation all other results are considered valid and usable for all purposes.

**NASA JPL, 4Q2018**  
**Volatiles - Data Qualification Summary - SDG 1832621**

Sample	Compound	Flag	A or P	Reason
TB-2-101618 MW-14-5 MW-14-4 MW-14-3 MW-14-2 MW-25-5 MW-25-4 MW-25-3 MW-25-2 MW-25-1** EB-2-101618	Pentachloroethane	UJ (all non-detects)	P	Initial calibration verification (%D)
MW-14-4	Hexachloroethane tert-Amyl methyl ether trans-1,4-Dichloro-2-butene Ethyl tert-butyl ether Pentachloroethane	UJ (all non-detects) UJ (all non-detects) UJ (all non-detects) UJ (all non-detects) UJ (all non-detects)	P	Continuing calibration (%D)
TB-2-101618 MW-14-5 MW-14-3 MW-14-2 MW-25-5 MW-25-4 MW-25-2 MW-25-1** EB-2-101618	Bromomethane Hexachloroethane Ethyl tert-butyl ether Methyl iodide Pentachloroethane	UJ (all non-detects) UJ (all non-detects) UJ (all non-detects) UJ (all non-detects) UJ (all non-detects)	P	Continuing calibration (%D)
MW-25-3	Bromomethane 2,2-Dichloropropane Hexachloroethane Ethyl tert-butyl ether Methyl iodide Pentachloroethane	UJ (all non-detects) UJ (all non-detects) UJ (all non-detects) UJ (all non-detects) UJ (all non-detects) UJ (all non-detects)	P	Continuing calibration (%D)

**NASA JPL, 4Q2018**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 1832621**

No Sample Data Qualified in this SDG

LDC #: 43719B1  
 SDG #: 1832621  
 Laboratory: BC Laboratories, Inc.

**VALIDATION COMPLETENESS WORKSHEET**  
 Level III/IV

Date: 12/12/18  
 Page: 1 of 7  
 Reviewer: [Signature]  
 2nd Reviewer: [Signature]

**METHOD:** GC/MS Volatiles (EPA Method 524.2)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	GC/MS Instrument performance check	A	
III.	Initial calibration/ICV	A SW	KAL = 20% r <sup>2</sup> ICV = 30%
IV.	Continuing calibration	SW	CCV = 30%
V.	Laboratory Blanks	A	
VI.	Field blanks	ND	TB = 1 EB = 11
VII.	Surrogate spikes	A	
VIII.	Matrix spike/Matrix spike duplicates	A	
IX.	Laboratory control samples	A	UCS
X.	Field duplicates	N	
XI.	Internal standards	A	
XII.	Compound quantitation RL/LOQ/LODs	A	Not reviewed for Level III validation
XIII.	Target compound identification	A	Not reviewed for Level III validation
XIV.	System performance	A	Not reviewed for Level III validation
XV.	Overall assessment of data	A	

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB = Source blank  
 N = Not provided/applicable      R = Rinstate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

\*\* Indicates sample underwent Level IV validation

	Client ID	Lab ID	Matrix	Date
1	TB-2-101618	1832621-01	Water	10/15/18
2	MW-14-5	1832621-02	Water	10/15/18
3	MW-14-4	1832621-03	Water	10/15/18
4	MW-14-3	1832621-04	Water	10/15/18
5	MW-14-2	1832621-05	Water	10/15/18
6	MW-25-5	1832621-06	Water	10/15/18
7	MW-25-4	1832621-07	Water	10/15/18
8	MW-25-3	1832621-08	Water	10/15/18
9	MW-25-2	1832621-09	Water	10/15/18
10	MW-25-1**	1832621-10**	Water	10/15/18
11	EB-2-101618	1832621-11	Water	10/15/18
12	MW-14-4MS	1832621-03MS	Water	10/15/18
13	MW-14-4MSD	1832621-03MSD	Water	10/15/18

LDC #: 43719B1  
SDG #: 1832621  
Laboratory: BC Laboratories, Inc.

**VALIDATION COMPLETENESS WORKSHEET**  
Level III/IV

Date: 12/12/18  
Page: 2 of 2  
Reviewer: [Signature]  
2nd Reviewer: [Signature]

**METHOD:** GC/MS Volatiles (EPA Method 524.2)

	Client ID	Lab ID	Matrix	Date
14	MW-25-3MS	1832621-08MS	Water	10/15/18
15	MW-25-3MSD	1832621-08MSD	Water	10/15/18
16				
17				
18				

Notes:

- 1 B027893-blk1							
- 2 B027892 ↓							



## VALIDATION FINDINGS CHECKLIST

**Method:** Volatiles (EPA Method 524.2)

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
Were all technical holding times met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was cooler temperature criteria met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. GC/MS Instrument performance check</b>				
Was a tune check performed prior to establishing and/or re-establishing an initial calibration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the BFB performance results reviewed and found to be within the specified criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>III. Initial calibration</b>				
Did the laboratory perform at least 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) < 20%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IIIa. Initial Calibration Verification calibration</b>				
Was an initial calibration verification standard analyzed after each initial calibration for each instrument?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) < 30%?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Continuing calibration</b>				
Was a continuing calibration standard analyzed at the beginning of each analysis batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) of continuing calibration < 30%?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>V. Laboratory Blanks</b>				
Was a laboratory blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a laboratory blank analyzed with each analysis batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the laboratory blanks? If yes, please see the Blanks validation completeness worksheet?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VI. Field blanks</b>				
Were field blanks identified in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were target compounds detected in the field blanks?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VII. Surrogate spikes</b>				
Were all surrogate %R within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VIII. Matrix spike/Matrix spike duplicates</b>				
Was a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IX. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

LDC #: 43719 B1

**VALIDATION FINDINGS CHECKLIST**

Page: 2 of 2  
 Reviewer: [Signature]  
 2nd Reviewer: [Signature]

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per analytical batch?	/			
Were the LCS percent recoveries (%R) within 70-130%?	/			
<b>X. Field duplicates</b>				
Were field duplicate pairs identified in this SDG?		/		
Were target compounds detected in the field duplicates?			/	
<b>XI. Internal standards</b>				
Were internal standard area counts within +/-30% of the area of the most recent continuing calibration standard and +/-50% of the average peak area in the initial calibration?	/			
Were retention times within +/-30 seconds of the associated calibration standard?	/			
<b>XII. Compound quantitation/CRQLs</b>				
Did the laboratory LOQs/RLs meet the QAPP LOQs/RLs?	/			
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) or regression equations used to quantitate the compound?	/			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	/			
<b>XIII. Target compound identification</b>				
Were relative retention times (RRT's) within + 0.06 RRT units of the standard?	/			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	/			
Were chromatogram peaks verified and accounted for?	/			
<b>XIV. System performance</b>				
System performance was found to be acceptable.	/			
<b>XV. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	/			

## TARGET COMPOUND WORKSHEET

### METHOD: VOA

A. Chloromethane	AA. Tetrachloroethene	AAA. 1,3,5-Trimethylbenzene	AAAA. Ethyl tert-butyl ether	A1. 1,3-Butadiene	A2.
B. Bromomethane	BB. 1,1,2,2-Tetrachloroethane	BBB. 4-Chlorotoluene	BBBB. tert-Amyl methyl ether	B1. Hexane	B2.
C. Vinyl chloride	CC. Toluene	CCC. tert-Butylbenzene	CCCC. 1-Chlorohexane	C1. Heptane	C2.
D. Chloroethane	DD. Chlorobenzene	DDD. 1,2,4-Trimethylbenzene	DDDD. Isopropyl alcohol	D1. Propylene	D2.
E. Methylene chloride	EE. Ethylbenzene	EEE. sec-Butylbenzene	EEEE. Acetonitrile	E1. Freon 11	E2.
F. Acetone	FF. Styrene	FFF. 1,3-Dichlorobenzene	FFFF. Acrolein	F1. Freon 12	F2.
G. Carbon disulfide	GG. Xylenes, total	GGG. p-Isopropyltoluene	GGGG. Acrylonitrile	G1. Freon 113	G2.
H. 1,1-Dichloroethene	HH. Vinyl acetate	HHH. 1,4-Dichlorobenzene	HHHH. 1,4-Dioxane	H1. Freon 114	H2.
I. 1,1-Dichloroethane	II. 2-Chloroethylvinyl ether	III. n-Butylbenzene	IIII. Isobutyl alcohol	I1. 2-Nitropropane	I2.
J. 1,2-Dichloroethene, total	JJ. Dichlorodifluoromethane	JJJ. 1,2-Dichlorobenzene	JJJJ. Methacrylonitrile	J1. Dimethyl disulfide	J2.
K. Chloroform	KK. Trichlorofluoromethane	KKK. 1,2,4-Trichlorobenzene	KKKK. Propionitrile	K1. 2,3-Dimethyl pentane	K2.
L. 1,2-Dichloroethane	LL. Methyl-tert-butyl ether	LLL. Hexachlorobutadiene	LLLL. Ethyl ether	L1. 2,4-Dimethyl pentane	L2.
M. 2-Butanone	MM. 1,2-Dibromo-3-chloropropane	MMM. Naphthalene	MMMM. Benzyl chloride	M1. 3,3-Dimethyl pentane	M2.
N. 1,1,1-Trichloroethane	NN. Methyl ethyl ketone	NNN. 1,2,3-Trichlorobenzene	NNNN. Iodomethane	N1. 2-Methylpentane	N2.
O. Carbon tetrachloride	OO. 2,2-Dichloropropane	OOO. 1,3,5-Trichlorobenzene	OOOO. 1,1-Difluoroethane	O1. 3-Methylpentane	O2.
P. Bromodichloromethane	PP. Bromochloromethane	PPP. trans-1,2-Dichloroethene	PPPP. Tetrahydrofuran	P1. 3-Ethylpentane	P2.
Q. 1,2-Dichloropropane	QQ. 1,1-Dichloropropene	QQQ. cis-1,2-Dichloroethene	QQQQ. Methyl acetate	Q1. 2,2-Dimethylpentane	Q2.
R. cis-1,3-Dichloropropene	RR. Dibromomethane	RRR. m,p-Xylenes	RRRR. Ethyl acetate	R1. 2,2,3-Trimethylbutane	R2.
S. Trichloroethene	SS. 1,3-Dichloropropane	SSS. o-Xylene	SSSS. Cyclohexane	S1. 2,2,4-Trimethylpentane	S2.
T. Dibromochloromethane	TT. 1,2-Dibromoethane	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	TTTT. Methylcyclohexane	T1. 2-Methylhexane	T2.
U. 1,1,2-Trichloroethane	UU. 1,1,1,2-Tetrachloroethane	UUU. 1,2-Dichlorotetrafluoroethane	UUUU. Allyl chloride	U1. Nonanal	U2.
V. Benzene	VV. Isopropylbenzene	VVV. 4-Ethyltoluene	VVVV. Methyl methacrylate	V1. 2-Methylnaphthalene	V2.
W. trans-1,3-Dichloropropene	WW. Bromobenzene	WWW. Ethanol	WWWWW. Ethyl methacrylate	W1. Methanol	W2.
X. Bromoform	XX. 1,2,3-Trichloropropane	XXX. Di-isopropyl ether	XXXX. cis-1,4-Dichloro-2-butene	X1. 1,2,3-Trimethylbenzene	X2.
Y. 4-Methyl-2-pentanone	YY. n-Propylbenzene	YYY. tert-Butanol	YYYY. trans-1,4-Dichloro-2-butene	Y1. Hexachloroethane	Y2.
Z. 2-Hexanone	ZZ. 2-Chlorotoluene	ZZZ. tert-Butyl alcohol	ZZZZ. Pentachloroethane	Z1. Methyl iodide	Z2.



**VALIDATION FINDINGS WORKSHEET**  
**Continuing Calibration**

**METHOD:** GC/MS VOA (EPA Method 524.2)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?

Y N N/A Were all percent differences (%D) < 30% ?

#	Date	Standard ID	Compound	Finding %D (Limit: <30.0%)	Associated Samples	Qualifications
	10/21/18	21 Oct 02	YI	36.0	3, 12, 13, 4B, 2	ND/ J/W/P
		21 Oct 03	BBBB	34.8		
			YYYY	50.1		
			AAAA	36.9		
			ZZZZ	120		
	10/21/18	21 Oct 32	B	58.2	1, 2, 4-7, 9-11	(ND)
		21 Oct 33	YI	38.2		
			AAAA	32.6		
			ZI	69.5		
			ZZZZ	84.7		
	10/22/18	22 Oct 02	B	67.2	8, 14, 15, MB, 4	(ND)
		22	00	32.8		
		22 Oct 03	YI	36.1		
			AAAA	32.8		
			ZI	63.9		
			ZZZZ	119		

**VALIDATION FINDINGS WORKSHEET**  
**Initial Calibration Calculation Verification**

METHOD: GC/MS VOA (EPA Method 524.2)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$$RRF = (A_x)(C_{is}) / (A_{is})(C_x)$$

average RRF = sum of the RRFs/number of standards

$$\%RSD = 100 * (S/X)$$

A<sub>x</sub> = Area of Compound

C<sub>x</sub> = Concentration of compound,

S = Standard deviation of the RRFs,

A<sub>is</sub> = Area of associated internal standard

C<sub>is</sub> = Concentration of internal standard

X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (IS)	Reported RRF (RRF 10 std)	Recalculated RRF (RRF 10 std)	Reported Average RRF (Initial)	Recalculated Average RRF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL MS V5	10/14/18	Chloroform (IS1)	0.711076	0.711076	0.744018	0.744018	6.998	6.998
			Trichloroethene (IS2)	0.352504	0.352504	0.360242	0.360242	9.716	9.716
			Ethylbenzene (IS3)	1.842402	1.842402	1.833670	1.833670	11.995	11.995

**VALIDATION FINDINGS WORKSHEET**  
**Continuing Calibration Results Verification**

METHOD: GC/MS VOA (EPA Method 524.2)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

$$\% \text{ Difference} = 100 * (\text{ave. RRF} - \text{RRF}) / \text{ave. RRF}$$

$$\text{RRF} = (\text{Ax})(\text{Cis}) / (\text{Ais})(\text{Cx})$$

Where:

ave. RRF = initial calibration average RRF

RRF = continuing calibration RRF

Ax = Area of compound,

Cx = Concentration of compound,

Ais = Area of associated internal standard

Cis = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (IS)	Average RRF (Initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported % D	Recalculated %D
1	21OCT02 MS V5	10/21/18	Chloroform (IS1)	0.744018	0.717107	0.717107	3.6	3.6
			Trichloroethene (IS2)	0.360242	0.343906	0.343906	4.5	4.5
			Ethylbenzene (IS3)	1.833670	1.722582	1.722582	6.1	6.1
2	21OCT32 MS V5	10/21/18	Chloroform (IS1)	0.744018	0.714494	0.714494	4.0	4.0
			Trichloroethene (IS2)	0.360242	0.333265	0.333265	7.5	7.5
			Ethylbenzene (IS3)	1.833670	1.754798	1.754798	4.3	4.3
3	22OCT 02 MS V5	10/22/18	Chloroform (IS1)	0.744018	0.752271	0.752271	1.1	1.1
			Trichloroethene (IS2)	0.360242	0.353371	0.353371	1.9	1.9
			Ethylbenzene (IS3)	1.833670	1.907781	1.907781	4.0	4.0

LDC #: 43719 B1

## VALIDATION FINDINGS WORKSHEET Surrogate Results Verification

Page: 1 of 1  
Reviewer: JVG  
2nd reviewer: X

**METHOD:** GC/MS VOA (EPA Method 524.2)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS \* 100

Where: SF = Surrogate Found  
SS = Surrogate Spiked

Sample ID: 10

	Surrogate Spiked	Surrogate Found	Percent Recovery		Percent Difference
			Reported	Recalculated	
Toluene-d8	10.0	9.98	99.8	99.8	0
Bromofluorobenzene	↓	9.90	99.0	99.0	↓
1,2-Dichlorobenzene-d4	↓	8.66	86.6	86.6	↓
Dibromofluoromethane					

Sample ID: \_\_\_\_\_

	Surrogate Spiked	Surrogate Found	Percent Recovery		Percent Difference
			Reported	Recalculated	
Toluene-d8					
Bromofluorobenzene					
1,2-Dichlorobenzene-d4					
Dibromofluoromethane					

Sample ID: \_\_\_\_\_

	Surrogate Spiked	Surrogate Found	Percent Recovery		Percent Difference
			Reported	Recalculated	
Toluene-d8					
Bromofluorobenzene					
1,2-Dichlorobenzene-d4					
Dibromofluoromethane					

Sample ID: \_\_\_\_\_

	Surrogate Spiked	Surrogate Found	Percent Recovery		Percent Difference
			Reported	Recalculated	
Toluene-d8					
Bromofluorobenzene					
1,2-Dichlorobenzene-d4					
Dibromofluoromethane					



LDC #: 4379 B1

## VALIDATION FINDINGS WORKSHEET

### Matrix Spike/Matrix Spike Duplicates Results Verification

Page: 1 of 1  
 Reviewer: JVG  
 2nd Reviewer: [Signature]

**METHOD:** GC/MS VOA (EPA Method 524.2)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 \* (SSC - SC)/SA

Where: SSC = Spiked sample concentration  
 SA = Spike added

SC = Sample concentration

RPD = | MSC - MSDC | \* 2 / (MSC + MSDC)

MSC = Matrix spike percent recovery

MSDC = Matrix spike duplicate percent recovery

MS/MSD sample: 12/13

Compound	Spike Added (ug/L)		Sample Concentration (ug/L)	Spiked Sample Concentration (ug/L)		Matrix Spike		Matrix Spike Duplicate		MS/MSD	
	MS	MSD		MS	MSD	Percent Recovery		Percent Recovery		RPD	
						Reported	Recalc	Reported	Recalc	Reported	Recalc
1,1-Dichloroethene	25.0	25.0	0	27.3	27.33	109	109	109	109	0.11	0.11
Trichloroethene	↓	↓	0.200	25.07	24.61	99.3	99.3	97.6	97.6	1.65	1.65
Benzene	↓	↓	0	26.51	25.93	106	106	104	104	2.21	2.21
Toluene	↓	↓	↓	25.19	24.79	101	101	99.2	99.2	1.60	1.60
Chlorobenzene	↓	↓	↓	24.470	24.11	97.9	97.9	96.4	96.4	1.48	1.48

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 4379 B1

## VALIDATION FINDINGS WORKSHEET Laboratory Control Sample Results Verification

Page: 1 of 1  
Reviewer: JYG  
2nd Reviewer: [Signature]

**METHOD:** GC/MS VOA (EPA Method 524.2)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate (if applicable) were recalculated for the compounds identified below using the following calculation:

% Recovery =  $100 * SSC/SA$

Where: SSC = Spiked sample concentration  
SA = Spike added

RPD =  $|LCS - LCSD| * 2 / (LCS + LCSD)$

LCS = Laboratory control sample percent recovery

LCSD = Laboratory control sample duplicate percent recovery

LCS ID: P0027892-BS1

Compound	Spike Added (ug/L)		Spiked Sample Concentration (ug/L)		LCS		LCSD		LCS/LCSD	
	LCS	LCSD	LCS	LCSD	Percent Recovery		Percent Recovery		RPD	
					Reported	Recalc	Reported	Recalc	Reported	Recalculated
1,1-Dichloroethene	25.0	NA	26.050	NA	104	104				
Trichloroethene	↓	↓	25.10	↓	100	100				
Benzene	↓	↓	24.82	↓	99.3	99.3				
Toluene	↓	↓	24.60	↓	98.4	98.4				
Chlorobenzene	↓	↓	23.35	↓	93.4	93.4				

Comments: Refer to Laboratory Control Sample findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 43719 B1

**VALIDATION FINDINGS WORKSHEET**  
**Sample Calculation Verification**

Page: 1 of 1  
Reviewer: JVG  
2nd reviewer: [Signature]

**METHOD:** GC/MS VOA (EPA Method 524.2)

Compound results reported with a positive detect were recalculated and verified using the following equation:

$$\text{Concentration} = \frac{(A_x)(I_s)(DF)}{(A_{is})(RRF)(V_s)(\%S)}$$

$A_x$  = Area of the characteristic ion (EICP) for the compound to be measured

$A_{is}$  = Area of the characteristic ion (EICP) for the specific internal standard

$I_s$  = Amount of internal standard added in nanograms (ng)

RRF = Relative response factor of the calibration standard.

$V_s$  = Volume or weight of sample purged in milliliters (ml) or grams (g).

Df = Dilution factor.

%S = Percent solids, applicable to soils and solid matrices only.

Example:

Sample I.D. 10, TCE:

$$\text{Conc.} = \frac{(14365)(10.0)}{(32382)(6.36024)} = 1.23 \text{ ug/L}$$

#	Sample ID	Compound	Reported Concentration (ug/L)	Calculated Concentration ( )	Acceptable (Y/N)
			1.2		

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** NASA JPL, 4Q2018

**LDC Report Date:** December 10, 2018

**Parameters:** Chromium

**Validation Level:** Level III & IV

**Laboratory:** BC Laboratories, Inc.

**Sample Delivery Group (SDG):** 1832621

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-14-5	1832621-02	Water	10/16/18
MW-14-4	1832621-03	Water	10/16/18
MW-14-3	1832621-04	Water	10/16/18
MW-14-2	1832621-05	Water	10/16/18
MW-25-5	1832621-06	Water	10/16/18
MW-25-4	1832621-07	Water	10/16/18
MW-25-3	1832621-08	Water	10/16/18
MW-25-2	1832621-09	Water	10/16/18
MW-25-1**	1832621-10**	Water	10/16/18
EB-2-101618	1832621-11	Water	10/16/18
MW-14-5MS	1832621-02MS	Water	10/16/18
MW-14-5MSD	1832621-02MSD	Water	10/16/18
MW-14-5DUP	1832621-02DUP	Water	10/16/18
EB-2-101618MS	1832621-11MS	Water	10/16/18
EB-2-101618MSD	1832621-11MSD	Water	10/16/18
EB-2-101618DUP	1832621-11DUP	Water	10/16/18

\*\*Indicates sample underwent Level IV validation

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with a modified outline of the USEPA National Functional Guidelines (NFG) for Inorganic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Chromium by Environmental Protection Agency (EPA) Method 200.8

All sample results were subjected to Level III data validation, which comprises an evaluation of quality control (QC) summary results. Samples appended with a double asterisk on the cover page were subjected to Level IV data validation, which is comprised of the QC summary forms as well as the raw data, to confirm sample quantitation and identification.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated due to non-conformances discovered during data validation.
- U (Non-detected): The compound or analyte was analyzed for and positively identified by the laboratory; however the compound or analyte should be considered non-detected at the reported concentration due to the presence of contaminants detected in the associated blank(s).
- UJ (Non-detected estimated): The compound or analyte was reported as not detected by the laboratory; however the reported quantitation/detection limit is estimated due to non-conformances discovered during data validation.
- R (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## I. Sample Receipt and Technical Holding Times

All samples were received in good condition.

All technical holding time requirements were met.

## II. ICPMS Tune

The mass calibration was within 0.1 AMU and the percent relative standard deviation (%RSD) was less than or equal to 5%.

## III. Instrument Calibration

Initial and continuing calibrations were performed as required by the method.

The initial calibration verification (ICV) and continuing calibration verification (CCV) standards were within QC limits.

## IV. ICP Interference Check Sample Analysis

ICP interference check sample analysis data were not required by the method.

## V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks with the following exceptions:

Blank ID	Analyte	Maximum Concentration	Associated Samples
PB (prep blank)	Chromium	0.52300 ug/L	MW-25-1** EB-2-101618
ICB/CCB	Chromium	0.536 ug/L	MW-14-5 MW-14-4 MW-14-3 MW-14-2 MW-25-5 MW-25-4 MW-25-3 MW-25-2
ICB/CCB	Chromium	0.65900 ug/L	MW-25-1**

Data qualification by the laboratory blanks was based on the maximum contaminant concentration in the laboratory blanks in the analysis of each analyte. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated laboratory blanks with the following exceptions:

Sample	Analyte	Reported Concentration	Modified Final Concentration
EB-2-101618	Chromium	0.70 ug/L	0.70U ug/L
MW-14-4	Chromium	1.7 ug/L	1.7U ug/L
MW-25-3	Chromium	2.5 ug/L	2.5U ug/L
MW-25-2	Chromium	1.9 ug/L	1.9U ug/L

## VI. Field Blanks

Sample EB-2-101618 was identified as an equipment blank. No contaminants were found with the following exceptions:

Blank ID	Analyte	Concentration
EB-2-101618	Chromium	0.70 ug/L

## VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## VIII. Duplicate Sample Analysis

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## IX. Serial Dilution

Serial dilution analysis was performed on an associated project sample. Percent differences (%D) were within QC limits.

## X. Laboratory Control Samples

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## XI. Field Duplicates

No field duplicates were identified in this SDG.

## **XII. Internal Standards (ICP-MS)**

All internal standard percent recoveries (%R) were within QC limits for samples which underwent Level IV validation. Raw data were not reviewed for Level III validation.

## **XIII. Sample Result Verification**

All sample result verifications were acceptable for samples which underwent Level IV validation. Raw data were not reviewed for Level III validation.

## **XIV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to laboratory blank contamination, data were qualified as not detected in four samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Based upon the data validation all other results are considered valid and usable for all purposes.



**NASA JPL, 4Q2018**  
**Chromium - Data Qualification Summary - SDG 1832621**

No Sample Data Qualified in this SDG

**NASA JPL, 4Q2018**  
**Chromium - Laboratory Blank Data Qualification Summary - SDG 1832621**

Sample	Analyte	Modified Final Concentration	A or P
EB-2-101618	Chromium	0.70U ug/L	A
MW-14-4	Chromium	1.7U ug/L	A
MW-25-3	Chromium	2.5U ug/L	A
MW-25-2	Chromium	1.9U ug/L	A

LDC #: 43719B4a  
 SDG #: 1832621  
 Laboratory: BC Laboratories, Inc.

**VALIDATION COMPLETENESS WORKSHEET**  
 Level III/IV

Date: 12-3-18  
 Page: 1 of 2  
 Reviewer: MG  
 2nd Reviewer:

**METHOD:** Chromium(EPA Method 200.8)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A	
II.	ICP/MS Tune	A	
III.	Instrument Calibration	A	
IV.	ICP Interference Check Sample (ICS) Analysis	N	not required
V.	Laboratory Blanks	SW	
VI.	Field Blanks	SW	EB=10
VII.	Matrix Spike/Matrix Spike Duplicates	A	MS/MSD
VIII.	Duplicate sample analysis	A	DUP
IX.	Serial Dilution	A	SD: 1, 10
X.	Laboratory control samples	A	LCS
XI.	Field Duplicates	N	
XII.	Internal Standard (ICP-MS)	A	not reviewed for Level III
XIII.	Sample Result Verification	A	Not reviewed for Level III validation
XIV.	Overall Assessment of Data	A	

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

\*\* Indicates sample underwent Level IV validation

	Client ID	Lab ID	Matrix	Date
1	MW-14-5	1832621-02	Water	10/17/18
2	MW-14-4	1832621-03	Water	10/17/18
3	MW-14-3	1832621-04	Water	10/17/18
4	MW-14-2	1832621-05	Water	10/17/18
5	MW-25-5	1832621-06	Water	10/17/18
6	MW-25-4	1832621-07	Water	10/17/18
7	MW-25-3	1832621-08	Water	10/17/18
8	MW-25-2	1832621-09	Water	10/17/18
9	MW-25-1**	1832621-10**	Water	10/17/18
10	EB-2-101618	1832621-11	Water	10/17/18
11	MW-14-1MS	1832621-02MS	Water	10/17/18
12	MW-14-1MSD	1832621-02MSD	Water	10/17/18
13	MW-14-1DUP	1832621-02DUP	Water	10/17/18
14	MW-25-3MS EB-2-101618 MS	1832621-03MS	Water	10/17/18
15	MW-25-3MSD EB-2-101618 MSD	1832621-03MSD	Water	10/17/18

LDC #: 43719B4a

# VALIDATION COMPLETENESS WORKSHEET

Date: 12-3-18

SDG #: 1832621

Level III/IV

Page: 2 of 2

Laboratory: BC Laboratories, Inc.

Reviewer: MG

2nd Reviewer: [Signature]

METHOD: Chromium(EPA Method 200.8)

gmH

NA

	Client ID	Lab ID	Matrix	Date
16	2 <del>MA-25-3DUP</del> EB-2-101618DUP	11 1832621- <del>08</del> DUP	Water	6 10/18/18
17				
18	1 PBW1			
19	2 PBW2			

Notes: \_\_\_\_\_

Method:Metals (EPA SW 846 Method 6010/7000/6020)

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
<b>II. ICP/MS Tune</b>				
Were all isotopes in the tuning solution mass resolution within 0.1 amu?	✓			
Were %RSD of isotopes in the tuning solution ≤5%?	✓			
<b>III. Calibration</b>				
Were all instruments calibrated daily, each set-up time?	✓			
Were the proper number of standards used?	✓			
Were all initial and continuing calibration verification %Rs within the 90-110% (80-120% for mercury) QC limits?	✓			
Were all initial calibration correlation coefficients > 0.995?	✓			
<b>IV. Blanks</b>				
Was a method blank associated with every sample in this SDG?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	✓			
<b>V. ICP Interference Check Sample</b>				
Were ICP interference check samples performed daily?		✓		
Were the AB solution percent recoveries (%R) with the 80-120% QC limits?			✓	
<b>VI. Matrix spike/Matrix spike duplicates</b>				
Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.	✓			
Were the MS/MSD or duplicate relative percent differences (RPD) ≤ 20% for waters and ≤ 35% for soil samples? A control limit of +/- RL(+/-2X RL for soil) was used for samples that were < 5X the RL, including when only one of the duplicate sample values were < 5X the RL.	✓			
<b>VII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% QC limits for water samples and laboratory established QC limits for soils?	✓			

LDC #: 43719B4a

## VALIDATION FINDINGS CHECKLIST

Page: 2 of 2  
Reviewer: MG  
2nd Reviewer: J

Validation Area	Yes	No	NA	Findings/Comments
<b>VIII. Internal Standards (EPA SW 846 Method 6020/EPA 200.8)</b>				
Were all the percent recoveries (%R) within the 30-120% (6020)/60-125% (200.8) of the intensity of the internal standard in the associated initial calibration?	✓			
If the %Rs were outside the criteria, was a reanalysis performed?			✓	
<b>IX. ICP Serial Dilution</b>				
Was an ICP serial dilution analyzed if analyte concentrations were > 50X the MDL (ICP)/>100X the MDL(ICP/MS)?	✓			
Were all percent differences (%Ds) < 10%?	✓			
Was there evidence of negative interference? If yes, professional judgement will be used to qualify the data.		✓		
<b>X. Sample Result Verification</b>				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
<b>XI. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	✓			
<b>XII. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.		✓		
Target analytes were detected in the field duplicates.			✓	
<b>XIII. Field blanks</b>				
Field blanks were identified in this SDG.	✓			
Target analytes were detected in the field blanks.	✓			

LDC #: 43719B4a

SDG #: See Cover

METHOD: Trace metals (EPA SW 864 Method 200.8)

Sample Concentration units, unless otherwise noted: ug/L

VALIDATION FINDINGS WORKSHEET

PB/ICB/CCB QUALIFIED SAMPLES

Soil preparation factor applied: NA

Associated Samples: 9,10

Reviewer: MG

2nd Reviewer: [Signature]

Analyte	Maximum PB <sup>a</sup> (mg/Kg)	Maximum PB <sup>a</sup> (ug/L)	Maximum ICB/CCB <sup>a</sup> (ug/L)	Action Limit	10									
Cr		0.52300		2.615	0.70									

Sample Concentration units, unless otherwise noted: ug/L

Associated Samples: 1-8

Analyte	Maximum PB <sup>a</sup> (mg/Kg)	Maximum PB <sup>a</sup> (ug/L)	Maximum ICB/CCB <sup>a</sup> (ug/L)	Action Limit	2	7	8							
Cr			0.536	2.680	1.7	2.5	1.9							

Sample Concentration units, unless otherwise noted: ug/L

Associated Samples: 9 (ND)

Analyte	Maximum PB <sup>a</sup> (mg/Kg)	Maximum PB <sup>a</sup> (ug/L)	Maximum ICB/CCB <sup>a</sup> (ug/L)	Action Limit	No Qual.									
Cr			0.65900	3.295										

Samples with analyte concentrations within five times the associated ICB, CCB or PB concentration are listed above with the identifications from the Validation Completeness Worksheet. These sample results were qualified as not detected, "U".

Note : a - The listed analyte concentration is the highest ICB, CCB, or PB detected in the analysis of each element.

LDC #: 43719B4a

**VALIDATION FINDINGS WORKSHEET**  
**Field Blanks**

Page: 1 of 1  
Reviewer: MG  
2nd reviewer: [Signature]

**METHOD:** Trace Metals (EPA SW 846 Method 6010/6020/7000)

- N N/A Were field blanks identified in this SDG?
- N N/A Were target analytes detected in the field blanks?

Sample: 10 Field Blank / Trip Blank / Rinsate / Other EB (circle one)

Analyte	Concentration Units ( )
<u>Cr</u>	<u>0.70 (µg/L)</u>

Sample: \_\_\_\_\_ Field Blank / Trip Blank / Rinsate / Other \_\_\_\_\_ (circle one)

Analyte	Concentration Units ( )

LDC #: 43719B4a

## VALIDATION FINDINGS WORKSHEET

### Initial and Continuing Calibration Calculation Verification

Page: 1 of 1  
 Reviewer: MG  
 2nd Reviewer: CF

**METHOD:** Trace metals (EPA SW 846 Method 6010/6020/7000)

An initial and continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

$$\%R = \frac{\text{Found}}{\text{True}} \times 100$$

Where, Found = concentration (in ug/L) of each analyte measured in the analysis of the ICV or CCV solution  
 True = concentration (in ug/L) of each analyte in the ICV or CCV source

Standard ID	Type of Analysis	Element	Found (ug/L)	True (ug/L)	Recalculated	Reported	Acceptable (Y/N)
					%R	%R	
	ICP (Low Level calibration)						
	ICP/MS (Low Level calibration)						
	ICP (Initial calibration)						
0824 ICV	ICP/MS (Initial calibration)	Cr	52.351	50.000	105	105	Y
	CVAA (Initial calibration)						↓
	ICP (Continuing calibration)						
0120 CCVV	ICP/MS (Continuing calibration)	Cr	39.926	40.000	99.8	99.8	↓
	CVAA (Continuing calibration)						

ICP-MS TUNE	Calculation	Mass	Actual (Mean Counts / Axis)	Required (Counts / Axis)	Recalculated %RSD	Acceptable (Y/N)
tune	Mass Axis	23.985	24.025	± 0.1 AMU	NA	Y
↓	%RSD	238.1	0.5	≤ 5% RSD	0.5	↓

Comments:



LDC #: 43719B4a

**VALIDATION FINDINGS WORKSHEET**  
**Level IV Recalculation Worksheet**

Page: 1 of 1  
 Reviewer: MG  
 2nd Reviewer: A

**METHOD:** Trace Metals (EPA SW 846 Method 6010/6020/7000)

Percent recoveries (%R) for an ICP interference check sample, a laboratory control sample and a matrix spike sample were recalculated using the following formula:

$$\%R = \frac{\text{Found}}{\text{True}} \times 100$$

Where, Found = Concentration of each analyte measured in the analysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result) - SR (sample result).  
 True = Concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

$$RPD = \frac{|S-D|}{(S+D)/2} \times 100$$

Where, S = Original sample concentration  
 D = Duplicate sample concentration

An ICP serial dilution percent difference (%D) was recalculated using the following formula:

$$\%D = \frac{|I-SDR|}{I} \times 100$$

Where, I = Initial Sample Result (mg/L)  
 SDR = Serial Dilution Result (mg/L) (Instrument Reading x 5)

Sample ID	Type of Analysis	Element	Found / S / I (units)	True / D / SDR (units)	Recalculated	Reported	Acceptable (Y/N)
					%R / RPD / %D	%R / RPD / %D	
-	ICP interference check	-	-	-	-	-	-
<u>0052</u> <u>LCS</u>	Laboratory control sample	<u>Cr</u>	<u>44.60 (µg/L)</u>	<u>40.00 (µg/L)</u>	<u>112</u>	<u>111</u>	<u>Y</u>
<u>0110</u> <u>14</u>	Matrix spike	<u>Cr</u>	<u>(SSR-SR)</u> <u>43.22 (µg/L)</u>	<u>40.00 (µg/L)</u>	<u>108</u>	<u>108</u>	↓
<u>0059 / 0103</u> <u>16</u>	Duplicate	<u>Cr</u>	<u>0.705 (µg/L)</u>	<u>0.621 (µg/L)</u>	<u>12.7</u>	<u>12.7</u>	
<u>0059 / 0106</u> <u>10</u>	ICP serial dilution	<u>Cr</u>	<u>0.705 (µg/L)</u>	<u>2.50 µ (µg/L)</u>	<u>100</u>	<u>-</u>	

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 43719B4a

### VALIDATION FINDINGS WORKSHEET Sample Calculation Verification

Page: 1 of 1  
Reviewer: MG  
2nd reviewer: [Signature]

**METHOD:** Trace Metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

- Y  N  N/A Have results been reported and calculated correctly?  
 Y  N  N/A Are results within the calibrated range of the instruments and within the linear range of the ICP?  
 Y  N  N/A Are all detection limits below the CRDL?

Detected analyte results for Level IV sample = N.D. ~~were recalculated and verified using the following equation:~~

Concentration =  $\frac{(RD)(FV)(Dil)}{(In. Vol.)}$                       Recalculation:

- RD = Raw data concentration  
FV = Final volume (ml)  
In. Vol. = Initial volume (ml) or weight (G)  
Dil = Dilution factor

#	Sample ID	Analyte	Reported Concentration ( )	Calculated Concentration ( )	Acceptable (Y/N)

Note: \_\_\_\_\_  
\_\_\_\_\_

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** NASA JPL, 4Q2018

**LDC Report Date:** December 10, 2018

**Parameters:** Wet Chemistry

**Validation Level:** Level III & IV

**Laboratory:** BC Laboratories, Inc.

**Sample Delivery Group (SDG):** 1832621

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-14-5	1832621-02	Water	10/16/18
MW-14-4	1832621-03	Water	10/16/18
MW-14-3	1832621-04	Water	10/16/18
MW-14-2	1832621-05	Water	10/16/18
MW-25-5	1832621-06	Water	10/16/18
MW-25-4	1832621-07	Water	10/16/18
MW-25-3	1832621-08	Water	10/16/18
MW-25-2	1832621-09	Water	10/16/18
MW-25-1**	1832621-10**	Water	10/16/18
EB-2-101618	1832621-11	Water	10/16/18
MW-14-5MS	1832621-02MS	Water	10/16/18
MW-14-5MSD	1832621-02MSD	Water	10/16/18
MW-14-5DUP	1832621-02DUP	Water	10/16/18
MW-25-3MS	1832621-08MS	Water	10/16/18
MW-25-3MSD	1832621-08MSD	Water	10/16/18
MW-25-3DUP	1832621-08DUP	Water	10/16/18

\*\*Indicates sample underwent Level IV validation

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with a modified outline of the USEPA National Functional Guidelines (NFG) for Inorganic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following methods:

Hexavalent Chromium by Environmental Protection Agency (EPA) SW 846 Method 7196

Perchlorate by EPA Method 314.0

All sample results were subjected to Level III data validation, which comprises an evaluation of quality control (QC) summary results. Samples appended with a double asterisk on the cover page were subjected to Level IV data validation, which is comprised of the QC summary forms as well as the raw data, to confirm sample quantitation and identification.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated due to non-conformances discovered during data validation.
- U (Non-detected): The compound or analyte was analyzed for and positively identified by the laboratory; however the compound or analyte should be considered non-detected at the reported concentration due to the presence of contaminants detected in the associated blank(s).
- UJ (Non-detected estimated): The compound or analyte was reported as not detected by the laboratory; however the reported quantitation/detection limit is estimated due to non-conformances discovered during data validation.
- R (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition.

All technical holding time requirements were met.

## **II. Initial Calibration**

All criteria for the initial calibration of each method were met.

## **III. Continuing Calibration**

Continuing calibration frequency and analysis criteria were met for each method when applicable.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the methods. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

Sample EB-2-101618 was identified as an equipment blank. No contaminants were found.

## **VI. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **VII. Duplicate Sample Analysis**

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the methods. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Sample Result Verification**

All sample result verifications were acceptable for samples which underwent Level IV validation. Raw data were not reviewed for Level III validation.

## **XI. Overall Assessment of Data**

The analysis was conducted within all specifications of the methods. No results were rejected in this SDG.

The quality control criteria reviewed were met and are considered acceptable. Based upon the data validation all results are considered valid and usable for all purposes.

**NASA JPL, 4Q2018**  
**Wet Chemistry - Data Qualification Summary - SDG 1832621**

No Sample Data Qualified in this SDG

**NASA JPL, 4Q2018**  
**Wet Chemistry - Laboratory Blank Data Qualification Summary - SDG 1832621**

No Sample Data Qualified in this SDG

LDC #: 43719B6  
 SDG #: 1832621  
 Laboratory: BC Laboratories, Inc.

**VALIDATION COMPLETENESS WORKSHEET**  
 Level III/IV

Date: 12-3-18  
 Page: 1 of 2  
 Reviewer: MG  
 2nd Reviewer:

**METHOD: (Analyte) Hexavalent Chromium (EPA SW846 Method 7196), Perchlorate (EPA Method 314.0)**

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A	
II	Initial calibration	A	
III.	Calibration verification	A	
IV	Laboratory Blanks	A	
V	Field blanks	ND	EB = 10
VI.	Matrix Spike/Matrix Spike Duplicates	A	MS/MSD
VII.	Duplicate sample analysis	A	DUP
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Sample result verification	A	Not reviewed for Level III validation
XI	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet  
 ND = No compounds detected  
 R = Rinsate  
 FB = Field blank  
 D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank  
 SB=Source blank  
 OTHER:

\*\* Indicates sample underwent Level IV validation

	Client ID	Lab ID	Matrix	Date
1	MW-14-5	1832621-02	Water	10/18/18
2	MW-14-4	1832621-03	Water	10/18/18
3	MW-14-3	1832621-04	Water	10/18/18
4	MW-14-2	1832621-05	Water	10/18/18
5	MW-25-5	1832621-06	Water	10/18/18
6	MW-25-4	1832621-07	Water	10/18/18
7	MW-25-3	1832621-08	Water	10/18/18
8	MW-25-2	1832621-09	Water	10/18/18
9	MW-25-1**	1832621-10**	Water	10/18/18
10	EB-2-101618	1832621-11	Water	10/18/18
11	MW-14-4MS	1832621-03MS	Water	10/18/18
12	MW-14-4MSD	1832621-03MSD	Water	10/18/18
13	MW-14-4DUP	1832621-03DUP	Water	10/18/18
14	MW-25-3MS	1832621-08MS	Water	10/18/18
15	MW-25-3MSD	1832621-08MSD	Water	10/18/18
16	MW-25-3DUP	1832621-08DUP	Water	10/18/18
17				

9/18



LDC #: 43719B6  
SDG #: 1832621  
Laboratory: BC Laboratories, Inc.

# VALIDATION COMPLETENESS WORKSHEET

Level III/IV

Date: 12-3-18  
Page: 2 of 2  
Reviewer: MG  
2nd Reviewer: \_\_\_\_\_

**METHOD: (Analyte)** Hexavalent Chromium (EPA SW846 Method 7196), Perchlorate (EPA Method 314.0)

	Client ID	Lab ID	Matrix	Date
18	PBW1			
19	PBW2			

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Method: Inorganics (EPA Method *see cover*)

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
<b>II. Calibration</b>				
Were all instruments calibrated daily, each set-up time?	✓			
Were the proper number of standards used?	✓			
Were all initial calibration correlation coefficients $\geq 0.995$ ?	✓			
Were all initial and continuing calibration verification %Rs within the 90-110% QC limits?	✓			
Were titrant checks performed as required? (Level IV only)			✓	
Were balance checks performed as required? (Level IV only)			✓	
<b>III. Blanks</b>				
Was a method blank associated with every sample in this SDG?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
<b>IV. Matrix spike/Matrix spike duplicates and Duplicates</b>				
Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.	✓			
Were the MS/MSD or duplicate relative percent differences (RPD) $\leq 20\%$ for waters and $\leq 35\%$ for soil samples? A control limit of $\leq$ CRDL ( $\leq 2X$ CRDL for soil) was used for samples that were $\leq 5X$ the CRDL, including when only one of the duplicate sample values were $\leq 5X$ the CRDL.	✓			
<b>V. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% (85-115% for Method 300.0) QC limits?	✓			
<b>VI. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 43719B6

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2  
 Reviewer: MG  
 2nd Reviewer: [Signature]

Validation Area	Yes	No	NA	Findings/Comments
<b>VII. Sample Result Verification</b>				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
Were detection limits < RL?	✓			
<b>VIII. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	✓			
<b>IX. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.		✓		
Target analytes were detected in the field duplicates.			✓	
<b>X. Field blanks</b>				
Field blanks were identified in this SDG.	✓			
Target analytes were detected in the field blanks.		✓		



LDC #: 43719B6

**VALIDATION FINDINGS WORKSHEET**  
**Initial and Continuing Calibration Calculation Verification**

Page: 1 of 1  
 Reviewer: MG  
 2nd Reviewer: [Signature]

**METHOD:** Inorganics, Method see cover

The correlation coefficient (r) for the calibration of C104 was recalculated. Calibration date: 10-29-18

An initial or continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

$\%R = \frac{\text{Found}}{\text{True}} \times 100$       Where, Found = concentration of each analyte measured in the analysis of the ICV or CCV solution  
 True = concentration of each analyte in the ICV or CCV source

Type of Analysis	Analyte	Standard ID	Conc. Found (units)	Area True (units)	Recalculated	Reported	Acceptable (Y/N)
					r or %R	r or %R	
Initial calibration	C104	Blank	-	-	$r^2 = 0.999573$	$r^2 = 0.998288$	Y
		Standard 1	2.5 (µg/L)	0.0028			
		Standard 2	4.0 ( )	0.0046			
		Standard 3	6.0 ( )	0.0064			
		Standard 4	10.0 ( )	0.0112			
		Standard 5	20.0 ( )	0.0223			
		Standard 6	-	-			
		Standard 7	-	-			
Calibration verification	Cr VI	0722 CCV3	0.0516 (mg/L)	0.050 (mg/L)	103	103	↓
Calibration verification	C104	1509 CCV1	9.594 (µg/L)	10.00 (µg/L)	95.9	95.9	
Calibration verification	-	-	-	-	-	-	

Comments: Refer to Calibration Verification findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

**VALIDATION FINDINGS WORKSHEET**  
**Level IV Recalculation Worksheet**

**METHOD:** Inorganics, Method see cover

Percent recoveries (%R) for a laboratory control sample and a matrix spike sample were recalculated using the following formula:

$$\%R = \frac{\text{Found}}{\text{True}} \times 100$$
 Where, Found = concentration of each analyte measured in the analysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result) - SR (sample result).  
True = concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

$$RPD = \frac{|S-D|}{(S+D)/2} \times 100$$
 Where, S = Original sample concentration  
D = Duplicate sample concentration

Sample ID	Type of Analysis	Element	Found / S (units)	True / D (units)	Recalculated	Reported	Acceptable (Y/N)
					%R / RPD	%R / RPD	
<u>0704</u> <u>LCS</u>	Laboratory control sample	<u>Cr VI</u>	<u>0.0530 (mg/L)</u>	<u>0.050 (mg/L)</u>	<u>106</u>	<u>106</u>	<u>Y</u>
<u>1423</u> <u>11</u>	Matrix spike sample	<u>Cr VI</u>	(SSR-SR) <u>10.51 (ug/L)</u>	<u>10.101 (ug/L)</u>	<u>104</u>	<u>104</u>	↓
<u>0722/0722</u> <u>13</u>	Duplicate sample	<u>Cr VI</u>	<u>0.00240 (mg/L)</u>	<u>0.00234 (mg/L)</u>	<u>2.53</u>	<u>2.20</u>	

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

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## NASA JPL, Q4 - LDC# 43719B

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<b>Analytical Method</b>											
EPA-200.8											
<b>Sample ID</b>	<b>Lab Sample ID</b>	<b>Chemical Name</b>	<b>Anal Date</b>	<b>Result</b>	<b>Report</b>	<b>Detect</b>	<b>Lab Qual</b>	<b>Val Qual</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
EB-2-101618	1832621-11	Total Recoverable Chromium	10/26/2018	0.7	Y	y	v j	U	3.0	0.50	ug/L
MW-14-2	1832621-05	Total Recoverable Chromium	10/24/2018	3	Y	n	u		3.0	0.50	ug/L
MW-14-3	1832621-04	Total Recoverable Chromium	10/24/2018	3	Y	n	u		3.0	0.50	ug/L
MW-14-4	1832621-03	Total Recoverable Chromium	10/24/2018	1.7	Y	y	v j	U	3.0	0.50	ug/L
MW-14-5	1832621-02	Total Recoverable Chromium	10/24/2018	3	Y	n	u		3.0	0.50	ug/L
MW-25-1	1832621-10	Total Recoverable Chromium	10/26/2018	3	Y	n	u		3.0	0.50	ug/L
MW-25-2	1832621-09	Total Recoverable Chromium	10/24/2018	1.9	Y	y	v j	U	3.0	0.50	ug/L
MW-25-3	1832621-08	Total Recoverable Chromium	10/24/2018	2.5	Y	y	v j	U	3.0	0.50	ug/L
MW-25-4	1832621-07	Total Recoverable Chromium	10/24/2018	3	Y	n	u		3.0	0.50	ug/L
MW-25-5	1832621-06	Total Recoverable Chromium	10/24/2018	3	Y	n	u		3.0	0.50	ug/L

<b>Analytical Method</b>											
EPA-314.0											
<b>Sample ID</b>	<b>Lab Sample ID</b>	<b>Chemical Name</b>	<b>Anal Date</b>	<b>Result</b>	<b>Report</b>	<b>Detect</b>	<b>Lab Qual</b>	<b>Val Qual</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
EB-2-101618	1832621-11	Perchlorate	10/29/2018	4	Y	n	u		4.0	0.92	ug/L
MW-14-2	1832621-05	Perchlorate	10/29/2018	3.7	Y	y	v j		4.0	0.92	ug/L
MW-14-3	1832621-04	Perchlorate	10/29/2018	4.7	Y	y	v		4.0	0.92	ug/L
MW-14-4	1832621-03	Perchlorate	10/29/2018	4.2	Y	y	v		4.0	0.92	ug/L
MW-14-5	1832621-02	Perchlorate	10/29/2018	4	Y	n	u		4.0	0.92	ug/L
MW-25-1	1832621-10	Perchlorate	10/29/2018	7.5	Y	y	v		4.0	0.92	ug/L
MW-25-2	1832621-09	Perchlorate	10/29/2018	13	Y	y	v		4.0	0.92	ug/L
MW-25-3	1832621-08	Perchlorate	10/29/2018	9.8	Y	y	v		4.0	0.92	ug/L
MW-25-4	1832621-07	Perchlorate	10/29/2018	8.5	Y	y	v		4.0	0.92	ug/L
MW-25-5	1832621-06	Perchlorate	10/29/2018	4	Y	n	u		4.0	0.92	ug/L



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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
EB-2-101618	1832621-11	4-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.093	ug/L
EB-2-101618	1832621-11	2-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-2-101618	1832621-11	Chloromethane	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
EB-2-101618	1832621-11	Chloroform	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-2-101618	1832621-11	1,2-Dibromo-3-chloropropane	10/21/2018	1	Y	n	u		1.0	0.89	ug/L
EB-2-101618	1832621-11	1,2-Dibromoethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
EB-2-101618	1832621-11	Dibromomethane	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
EB-2-101618	1832621-11	Chlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-2-101618	1832621-11	Dibromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
EB-2-101618	1832621-11	tert-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
EB-2-101618	1832621-11	1,3-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
EB-2-101618	1832621-11	Bromodichloromethane	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
EB-2-101618	1832621-11	1,4-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-2-101618	1832621-11	Dichlorodifluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-2-101618	1832621-11	1,1-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-2-101618	1832621-11	1,2-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-2-101618	1832621-11	1,1-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
EB-2-101618	1832621-11	cis-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
EB-2-101618	1832621-11	trans-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-2-101618	1832621-11	1,2-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
EB-2-101618	1832621-11	Tetrahydrofuran	10/21/2018	20	Y	n	u		20	5.2	ug/L
EB-2-101618	1832621-11	1-Chlorobutane	10/21/2018	0	Y	y	v				ug/L
EB-2-101618	1832621-11	1,1-Dichloropropanone	10/21/2018	0	Y	y	v				ug/L
EB-2-101618	1832621-11	Methyl acrylate	10/21/2018	0	Y	y	v				ug/L
EB-2-101618	1832621-11	Nitrobenzene	10/21/2018	0	Y	y	v				ug/L

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Analytical Method EPA-524.2

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
EB-2-101618	1832621-11	Pentachloroethane	10/21/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
EB-2-101618	1832621-11	2-Nitropropane	10/21/2018	0	Y	y	v				ug/L
EB-2-101618	1832621-11	Chloroacetonitrile	10/21/2018	0	Y	y	v				ug/L
EB-2-101618	1832621-11	Bromomethane	10/21/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
EB-2-101618	1832621-11	p- & m-Xylenes	10/21/2018	0.5	Y	n	u		0.50	0.34	ug/L
EB-2-101618	1832621-11	sec-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
EB-2-101618	1832621-11	Propionitrile	10/21/2018	20	Y	n	u		20	6.2	ug/L
EB-2-101618	1832621-11	Benzene	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
EB-2-101618	1832621-11	Bromobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-2-101618	1832621-11	Bromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
EB-2-101618	1832621-11	Chloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-2-101618	1832621-11	Bromoform	10/21/2018	0.5	Y	n	u		0.50	0.46	ug/L
EB-2-101618	1832621-11	1,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-2-101618	1832621-11	n-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-2-101618	1832621-11	o-Xylene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
EB-2-101618	1832621-11	trans-1,4-Dichloro-2-butene	10/21/2018	5	Y	n	u		5.0	1.8	ug/L
EB-2-101618	1832621-11	1,2,3-Trichloropropane	10/21/2018	1	Y	n	u		1.0	0.78	ug/L
EB-2-101618	1832621-11	1,1,2-Trichloro-1,2,2-trifluoroethane	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
EB-2-101618	1832621-11	1,2,4-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-2-101618	1832621-11	1,3,5-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-2-101618	1832621-11	Vinyl chloride	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
EB-2-101618	1832621-11	Acetone	10/21/2018	10	Y	n	u		10	6.6	ug/L
EB-2-101618	1832621-11	Acrylonitrile	10/21/2018	5	Y	n	u		5.0	1.5	ug/L
EB-2-101618	1832621-11	Allyl chloride	10/21/2018	5	Y	n	u		5.0	0.47	ug/L
EB-2-101618	1832621-11	t-Amyl Methyl ether	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
EB-2-101618	1832621-11	Trichlorofluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-2-101618	1832621-11	Carbon disulfide	10/21/2018	1	Y	n	u		1.0	0.48	ug/L
EB-2-101618	1832621-11	Hexachloroethane	10/21/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
EB-2-101618	1832621-11	Diethyl ether	10/21/2018	2	Y	n	u		2.0	0.33	ug/L
EB-2-101618	1832621-11	Ethyl methacrylate	10/21/2018	4	Y	n	u		4.0	1.3	ug/L
EB-2-101618	1832621-11	Ethyl t-butyl ether	10/21/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
EB-2-101618	1832621-11	1,3-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
EB-2-101618	1832621-11	2-Hexanone	10/21/2018	10	Y	n	u		10	5.0	ug/L
EB-2-101618	1832621-11	Carbon tetrachloride	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-2-101618	1832621-11	Methyl ethyl ketone	10/21/2018	10	Y	n	u		10	3.3	ug/L
EB-2-101618	1832621-11	Methyl iodide	10/21/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
EB-2-101618	1832621-11	Methyl isobutyl ketone	10/21/2018	10	Y	n	u		10	2.4	ug/L
EB-2-101618	1832621-11	Methyl methacrylate	10/21/2018	5	Y	n	u		5.0	1.2	ug/L
EB-2-101618	1832621-11	t-Butyl alcohol	10/21/2018	10	Y	n	u		10	9.4	ug/L
EB-2-101618	1832621-11	Methyl t-butyl ether	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-2-101618	1832621-11	Methacrylonitrile	10/21/2018	10	Y	n	u		10	2.3	ug/L
EB-2-101618	1832621-11	cis-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-2-101618	1832621-11	1,1-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
EB-2-101618	1832621-11	2,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
EB-2-101618	1832621-11	Ethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-2-101618	1832621-11	Hexachlorobutadiene	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
EB-2-101618	1832621-11	Isopropylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-2-101618	1832621-11	Trichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
EB-2-101618	1832621-11	Methylene chloride	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
EB-2-101618	1832621-11	trans-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
EB-2-101618	1832621-11	Naphthalene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
EB-2-101618	1832621-11	Styrene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
EB-2-101618	1832621-11	1,1,1,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
EB-2-101618	1832621-11	1,1,2,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-2-101618	1832621-11	Tetrachloroethene	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
EB-2-101618	1832621-11	Toluene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-2-101618	1832621-11	1,1,2-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
EB-2-101618	1832621-11	1,2,3-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
EB-2-101618	1832621-11	n-Propylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
EB-2-101618	1832621-11	p-Isopropyltoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-2-101618	1832621-11	1,1,1-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
EB-2-101618	1832621-11	1,2,4-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-14-2	1832621-05	t-Butyl alcohol	10/21/2018	10	Y	n	u		10	9.4	ug/L
MW-14-2	1832621-05	Acetone	10/21/2018	10	Y	n	u		10	6.6	ug/L
MW-14-2	1832621-05	Acrylonitrile	10/21/2018	5	Y	n	u		5.0	1.5	ug/L
MW-14-2	1832621-05	trans-1,4-Dichloro-2-butene	10/21/2018	5	Y	n	u		5.0	1.8	ug/L
MW-14-2	1832621-05	t-Amyl Methyl ether	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-14-2	1832621-05	Carbon disulfide	10/21/2018	1	Y	n	u		1.0	0.48	ug/L
MW-14-2	1832621-05	Allyl chloride	10/21/2018	5	Y	n	u		5.0	0.47	ug/L
MW-14-2	1832621-05	Vinyl chloride	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-14-2	1832621-05	1,3,5-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-14-2	1832621-05	1,2,4-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-14-2	1832621-05	1,1,2-Trichloro-1,2,2-trifluoroethane	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-14-2	1832621-05	1,2,3-Trichloropropane	10/21/2018	1	Y	n	u		1.0	0.78	ug/L
MW-14-2	1832621-05	Trichlorofluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-14-2	1832621-05	Diethyl ether	10/21/2018	2	Y	n	u		2.0	0.33	ug/L
MW-14-2	1832621-05	1,1,2-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-14-2	1832621-05	Propionitrile	10/21/2018	20	Y	n	u		20	6.2	ug/L
MW-14-2	1832621-05	1,1,1-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-14-2	1832621-05	1,2,4-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-14-2	1832621-05	Trichloroethene	10/21/2018	1.1	Y	y	v		0.50	0.19	ug/L
MW-14-2	1832621-05	Pentachloroethane	10/21/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-14-2	1832621-05	1,2,3-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-14-2	1832621-05	Bromomethane	10/21/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-14-2	1832621-05	2-Nitropropane	10/21/2018	0	Y	y	v				ug/L
MW-14-2	1832621-05	Nitrobenzene	10/21/2018	0	Y	y	v				ug/L
MW-14-2	1832621-05	Methyl acrylate	10/21/2018	0	Y	y	v				ug/L
MW-14-2	1832621-05	1,1-Dichloropropanone	10/21/2018	0	Y	y	v				ug/L
MW-14-2	1832621-05	1-Chlorobutane	10/21/2018	0	Y	y	v				ug/L
MW-14-2	1832621-05	Methyl methacrylate	10/21/2018	5	Y	n	u		5.0	1.2	ug/L
MW-14-2	1832621-05	Tetrahydrofuran	10/21/2018	20	Y	n	u		20	5.2	ug/L
MW-14-2	1832621-05	Ethyl methacrylate	10/21/2018	4	Y	n	u		4.0	1.3	ug/L
MW-14-2	1832621-05	Methyl isobutyl ketone	10/21/2018	10	Y	n	u		10	2.4	ug/L
MW-14-2	1832621-05	Methyl iodide	10/21/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-14-2	1832621-05	Methyl ethyl ketone	10/21/2018	10	Y	n	u		10	3.3	ug/L
MW-14-2	1832621-05	Methacrylonitrile	10/21/2018	10	Y	n	u		10	2.3	ug/L
MW-14-2	1832621-05	2-Hexanone	10/21/2018	10	Y	n	u		10	5.0	ug/L
MW-14-2	1832621-05	Hexachloroethane	10/21/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
MW-14-2	1832621-05	Ethyl t-butyl ether	10/21/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
MW-14-2	1832621-05	o-Xylene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L

SDG: 1832621

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-14-2	1832621-05	Chloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-14-2	1832621-05	sec-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-14-2	1832621-05	1,3-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-14-2	1832621-05	1,2-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-14-2	1832621-05	Dibromomethane	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-14-2	1832621-05	1,2-Dibromoethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-14-2	1832621-05	1,2-Dibromo-3-chloropropane	10/21/2018	1	Y	n	u		1.0	0.89	ug/L
MW-14-2	1832621-05	Dibromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-14-2	1832621-05	4-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-14-2	1832621-05	2-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-14-2	1832621-05	Dichlorodifluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-14-2	1832621-05	Chloroform	10/21/2018	0.39	Y	y	v j		0.50	0.14	ug/L
MW-14-2	1832621-05	1,1-Dichloroethane	10/21/2018	0.17	Y	y	v j		0.50	0.15	ug/L
MW-14-2	1832621-05	Chlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-14-2	1832621-05	Carbon tetrachloride	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-14-2	1832621-05	tert-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-14-2	1832621-05	Benzene	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-14-2	1832621-05	n-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-14-2	1832621-05	Bromoform	10/21/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-14-2	1832621-05	Bromodichloromethane	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-14-2	1832621-05	Bromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-14-2	1832621-05	Bromobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-14-2	1832621-05	Chloroacetonitrile	10/21/2018	0	Y	y	v				ug/L
MW-14-2	1832621-05	Chloromethane	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-14-2	1832621-05	Ethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-14-2	1832621-05	Tetrachloroethene	10/21/2018	0.29	Y	y	v j		0.50	0.23	ug/L
MW-14-2	1832621-05	1,1,2,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-14-2	1832621-05	1,1,1,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-14-2	1832621-05	Styrene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-14-2	1832621-05	n-Propylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-14-2	1832621-05	Naphthalene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-14-2	1832621-05	Methyl t-butyl ether	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-14-2	1832621-05	Methylene chloride	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-14-2	1832621-05	p-Isopropyltoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-14-2	1832621-05	1,4-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-14-2	1832621-05	Hexachlorobutadiene	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-14-2	1832621-05	Toluene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-14-2	1832621-05	trans-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-14-2	1832621-05	cis-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-14-2	1832621-05	1,1-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-14-2	1832621-05	2,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-14-2	1832621-05	1,3-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-14-2	1832621-05	1,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-14-2	1832621-05	trans-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-14-2	1832621-05	cis-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-14-2	1832621-05	1,1-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-14-2	1832621-05	1,2-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-14-2	1832621-05	Isopropylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-14-2	1832621-05	p- & m-Xylenes	10/21/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-14-3	1832621-04	Vinyl chloride	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-14-3	1832621-04	1,2,3-Trichlorobenzene	10/21/2018	0.26	Y	y	v j		0.50	0.19	ug/L
MW-14-3	1832621-04	Ethyl methacrylate	10/21/2018	4	Y	n	u		4.0	1.3	ug/L
MW-14-3	1832621-04	Diethyl ether	10/21/2018	2	Y	n	u		2.0	0.33	ug/L
MW-14-3	1832621-04	trans-1,4-Dichloro-2-butene	10/21/2018	5	Y	n	u		5.0	1.8	ug/L
MW-14-3	1832621-04	Carbon disulfide	10/21/2018	1	Y	n	u		1.0	0.48	ug/L
MW-14-3	1832621-04	t-Butyl alcohol	10/21/2018	10	Y	n	u		10	9.4	ug/L
MW-14-3	1832621-04	t-Amyl Methyl ether	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-14-3	1832621-04	Allyl chloride	10/21/2018	5	Y	n	u		5.0	0.47	ug/L
MW-14-3	1832621-04	Acetone	10/21/2018	10	Y	n	u		10	6.6	ug/L
MW-14-3	1832621-04	2-Hexanone	10/21/2018	10	Y	n	u		10	5.0	ug/L
MW-14-3	1832621-04	1,3,5-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-14-3	1832621-04	1,2,4-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-14-3	1832621-04	1,1,2-Trichloro-1,2,2-trifluoroethane	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-14-3	1832621-04	1,2,3-Trichloropropane	10/21/2018	1	Y	n	u		1.0	0.78	ug/L
MW-14-3	1832621-04	Trichlorofluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-14-3	1832621-04	Trichloroethene	10/21/2018	0.89	Y	y	v		0.50	0.19	ug/L
MW-14-3	1832621-04	1,1,2-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-14-3	1832621-04	1,1,1-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-14-3	1832621-04	1,2,4-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-14-3	1832621-04	Acrylonitrile	10/21/2018	5	Y	n	u		5.0	1.5	ug/L
MW-14-3	1832621-04	o-Xylene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-14-3	1832621-04	Bromodichloromethane	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-14-3	1832621-04	Benzene	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-14-3	1832621-04	Bromobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-14-3	1832621-04	Bromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L



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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-14-3	1832621-04	2-Nitropropane	10/21/2018	0	Y	y	v				ug/L
MW-14-3	1832621-04	Nitrobenzene	10/21/2018	0	Y	y	v				ug/L
MW-14-3	1832621-04	Methyl acrylate	10/21/2018	0	Y	y	v				ug/L
MW-14-3	1832621-04	1,1-Dichloropropanone	10/21/2018	0	Y	y	v				ug/L
MW-14-3	1832621-04	Ethyl t-butyl ether	10/21/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
MW-14-3	1832621-04	Chloroacetonitrile	10/21/2018	0	Y	y	v				ug/L
MW-14-3	1832621-04	Hexachloroethane	10/21/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
MW-14-3	1832621-04	p- & m-Xylenes	10/21/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-14-3	1832621-04	Tetrahydrofuran	10/21/2018	20	Y	n	u		20	5.2	ug/L
MW-14-3	1832621-04	Propionitrile	10/21/2018	20	Y	n	u		20	6.2	ug/L
MW-14-3	1832621-04	Pentachloroethane	10/21/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-14-3	1832621-04	Methyl methacrylate	10/21/2018	5	Y	n	u		5.0	1.2	ug/L
MW-14-3	1832621-04	Methyl isobutyl ketone	10/21/2018	10	Y	n	u		10	2.4	ug/L
MW-14-3	1832621-04	Methyl iodide	10/21/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-14-3	1832621-04	Methyl ethyl ketone	10/21/2018	10	Y	n	u		10	3.3	ug/L
MW-14-3	1832621-04	Methacrylonitrile	10/21/2018	10	Y	n	u		10	2.3	ug/L
MW-14-3	1832621-04	1-Chlorobutane	10/21/2018	0	Y	y	v				ug/L
MW-14-3	1832621-04	Toluene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-14-3	1832621-04	1,1-Dichloroethane	10/21/2018	0.34	Y	y	v j		0.50	0.15	ug/L
MW-14-3	1832621-04	Dichlorodifluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-14-3	1832621-04	1,4-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-14-3	1832621-04	1,3-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-14-3	1832621-04	1,2-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-14-3	1832621-04	Dibromomethane	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-14-3	1832621-04	1,2-Dibromoethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-14-3	1832621-04	1,2-Dibromo-3-chloropropane	10/21/2018	1	Y	n	u		1.0	0.89	ug/L
MW-14-3	1832621-04	1,2-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-14-3	1832621-04	4-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-14-3	1832621-04	Dibromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-14-3	1832621-04	Chloromethane	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-14-3	1832621-04	Chloroform	10/21/2018	0.42	Y	y	v j		0.50	0.14	ug/L
MW-14-3	1832621-04	Chloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-14-3	1832621-04	Chlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-14-3	1832621-04	Carbon tetrachloride	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-14-3	1832621-04	tert-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-14-3	1832621-04	sec-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-14-3	1832621-04	n-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-14-3	1832621-04	Bromoform	10/21/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-14-3	1832621-04	Bromomethane	10/21/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-14-3	1832621-04	Naphthalene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-14-3	1832621-04	Tetrachloroethene	10/21/2018	0.56	Y	y	v		0.50	0.23	ug/L
MW-14-3	1832621-04	2-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-14-3	1832621-04	1,1-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-14-3	1832621-04	1,1,2,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-14-3	1832621-04	1,1,1,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-14-3	1832621-04	n-Propylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-14-3	1832621-04	Methyl t-butyl ether	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-14-3	1832621-04	Methylene chloride	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-14-3	1832621-04	p-Isopropyltoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-14-3	1832621-04	Isopropylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-14-3	1832621-04	1,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-14-3	1832621-04	cis-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-14-3	1832621-04	Styrene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-14-3	1832621-04	trans-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-14-3	1832621-04	Hexachlorobutadiene	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-14-3	1832621-04	1,3-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-14-3	1832621-04	2,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-14-3	1832621-04	1,1-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-14-3	1832621-04	cis-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-14-3	1832621-04	trans-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-14-3	1832621-04	Ethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-14-4	1832621-03	2,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-14-4	1832621-03	n-Propylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-14-4	1832621-03	1,1-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-14-4	1832621-03	1,2-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-14-4	1832621-03	1,1-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-14-4	1832621-03	cis-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-14-4	1832621-03	trans-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-14-4	1832621-03	1,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-14-4	1832621-03	1,3-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-14-4	1832621-03	Dichlorodifluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-14-4	1832621-03	1,1-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-14-4	1832621-03	cis-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-14-4	1832621-03	trans-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-14-4	1832621-03	Ethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-14-4	1832621-03	Hexachlorobutadiene	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-14-4	1832621-03	Isopropylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-14-4	1832621-03	p-Isopropyltoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-14-4	1832621-03	Methylene chloride	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-14-4	1832621-03	Naphthalene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-14-4	1832621-03	Methyl t-butyl ether	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-14-4	1832621-03	Chloroform	10/21/2018	0.21	Y	y	v j		0.50	0.14	ug/L
MW-14-4	1832621-03	Diethyl ether	10/21/2018	2	Y	n	u		2.0	0.33	ug/L
MW-14-4	1832621-03	Bromobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-14-4	1832621-03	Styrene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-14-4	1832621-03	Bromodichloromethane	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-14-4	1832621-03	Bromomethane	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-14-4	1832621-03	sec-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-14-4	1832621-03	tert-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-14-4	1832621-03	Carbon tetrachloride	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-14-4	1832621-03	Bromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-14-4	1832621-03	Chloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-14-4	1832621-03	1,4-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-14-4	1832621-03	Chloromethane	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-14-4	1832621-03	2-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-14-4	1832621-03	4-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-14-4	1832621-03	Dibromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-14-4	1832621-03	1,2-Dibromo-3-chloropropane	10/21/2018	1	Y	n	u		1.0	0.89	ug/L
MW-14-4	1832621-03	1,2-Dibromoethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-14-4	1832621-03	Dibromomethane	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-14-4	1832621-03	1,2-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-14-4	1832621-03	1,3-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-14-4	1832621-03	Chlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-14-4	1832621-03	Tetrahydrofuran	10/21/2018	20	Y	n	u		20	5.2	ug/L
MW-14-4	1832621-03	Carbon disulfide	10/21/2018	1	Y	n	u		1.0	0.48	ug/L
MW-14-4	1832621-03	Hexachloroethane	10/21/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
MW-14-4	1832621-03	2-Hexanone	10/21/2018	10	Y	n	u		10	5.0	ug/L
MW-14-4	1832621-03	Methacrylonitrile	10/21/2018	10	Y	n	u		10	2.3	ug/L
MW-14-4	1832621-03	Methyl ethyl ketone	10/21/2018	10	Y	n	u		10	3.3	ug/L
MW-14-4	1832621-03	Methyl iodide	10/21/2018	2	Y	n	u		2.0	1.1	ug/L
MW-14-4	1832621-03	Methyl isobutyl ketone	10/21/2018	10	Y	n	u		10	2.4	ug/L
MW-14-4	1832621-03	Methyl methacrylate	10/21/2018	5	Y	n	u		5.0	1.2	ug/L
MW-14-4	1832621-03	Ethyl methacrylate	10/21/2018	4	Y	n	u		4.0	1.3	ug/L
MW-14-4	1832621-03	Propionitrile	10/21/2018	20	Y	n	u		20	6.2	ug/L
MW-14-4	1832621-03	trans-1,4-Dichloro-2-butene	10/21/2018	5	Y	n	u	UJ	5.0	1.8	ug/L
MW-14-4	1832621-03	p- & m-Xylenes	10/21/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-14-4	1832621-03	o-Xylene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-14-4	1832621-03	Chloroacetonitrile	10/21/2018	0	Y	y	v				ug/L
MW-14-4	1832621-03	1-Chlorobutane	10/21/2018	0	Y	y	v				ug/L
MW-14-4	1832621-03	1,1-Dichloropropanone	10/21/2018	0	Y	y	v				ug/L
MW-14-4	1832621-03	Methyl acrylate	10/21/2018	0	Y	y	v				ug/L
MW-14-4	1832621-03	Nitrobenzene	10/21/2018	0	Y	y	v				ug/L
MW-14-4	1832621-03	Benzene	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-14-4	1832621-03	Bromoform	10/21/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-14-4	1832621-03	Pentachloroethane	10/21/2018	2	Y	n	u	UJ	2.0	0.63	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-14-4	1832621-03	1,1,2-Trichloro-1,2,2-trifluoroethane	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-14-4	1832621-03	1,1,2,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-14-4	1832621-03	Tetrachloroethene	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-14-4	1832621-03	Toluene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-14-4	1832621-03	1,2,3-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-14-4	1832621-03	1,2,4-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-14-4	1832621-03	1,1,1-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-14-4	1832621-03	1,1,2-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-14-4	1832621-03	Trichloroethene	10/21/2018	0.2	Y	y	v j		0.50	0.19	ug/L
MW-14-4	1832621-03	Ethyl t-butyl ether	10/21/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
MW-14-4	1832621-03	1,2,3-Trichloropropane	10/21/2018	1	Y	n	u		1.0	0.78	ug/L
MW-14-4	1832621-03	1,1,1,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-14-4	1832621-03	1,2,4-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-14-4	1832621-03	1,3,5-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-14-4	1832621-03	Vinyl chloride	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-14-4	1832621-03	Acetone	10/21/2018	10	Y	n	u		10	6.6	ug/L
MW-14-4	1832621-03	Acrylonitrile	10/21/2018	5	Y	n	u		5.0	1.5	ug/L
MW-14-4	1832621-03	Allyl chloride	10/21/2018	5	Y	n	u		5.0	0.47	ug/L
MW-14-4	1832621-03	t-Amyl Methyl ether	10/21/2018	0.5	Y	n	u	UJ	0.50	0.19	ug/L
MW-14-4	1832621-03	t-Butyl alcohol	10/21/2018	10	Y	n	u		10	9.4	ug/L
MW-14-4	1832621-03	2-Nitropropane	10/21/2018	0	Y	y	v				ug/L
MW-14-4	1832621-03	Trichlorofluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-14-4	1832621-03	n-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-14-5	1832621-02	1,3,5-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-14-5	1832621-02	Ethyl methacrylate	10/21/2018	4	Y	n	u		4.0	1.3	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-14-5	1832621-02	Diethyl ether	10/21/2018	2	Y	n	u		2.0	0.33	ug/L
MW-14-5	1832621-02	trans-1,4-Dichloro-2-butene	10/21/2018	5	Y	n	u		5.0	1.8	ug/L
MW-14-5	1832621-02	Carbon disulfide	10/21/2018	1	Y	n	u		1.0	0.48	ug/L
MW-14-5	1832621-02	t-Butyl alcohol	10/21/2018	10	Y	n	u		10	9.4	ug/L
MW-14-5	1832621-02	t-Amyl Methyl ether	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-14-5	1832621-02	Allyl chloride	10/21/2018	5	Y	n	u		5.0	0.47	ug/L
MW-14-5	1832621-02	Acrylonitrile	10/21/2018	5	Y	n	u		5.0	1.5	ug/L
MW-14-5	1832621-02	1,2,3-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-14-5	1832621-02	Vinyl chloride	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-14-5	1832621-02	2-Hexanone	10/21/2018	10	Y	n	u		10	5.0	ug/L
MW-14-5	1832621-02	1,2,4-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-14-5	1832621-02	1,1,2-Trichloro-1,2,2-trifluoroethane	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-14-5	1832621-02	1,2,3-Trichloropropane	10/21/2018	1	Y	n	u		1.0	0.78	ug/L
MW-14-5	1832621-02	Trichlorofluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-14-5	1832621-02	Trichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-14-5	1832621-02	1,1,2-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-14-5	1832621-02	1,1,1-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-14-5	1832621-02	1,2,4-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-14-5	1832621-02	Acetone	10/21/2018	10	Y	n	u		10	6.6	ug/L
MW-14-5	1832621-02	p- & m-Xylenes	10/21/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-14-5	1832621-02	n-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-14-5	1832621-02	Bromoform	10/21/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-14-5	1832621-02	Bromodichloromethane	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-14-5	1832621-02	Bromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-14-5	1832621-02	Bromomethane	10/21/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-14-5	1832621-02	2-Nitropropane	10/21/2018	0	Y	y	v				ug/L
MW-14-5	1832621-02	Nitrobenzene	10/21/2018	0	Y	y	v				ug/L
MW-14-5	1832621-02	Methyl acrylate	10/21/2018	0	Y	y	v				ug/L
MW-14-5	1832621-02	Ethyl t-butyl ether	10/21/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
MW-14-5	1832621-02	Chloroacetonitrile	10/21/2018	0	Y	y	v				ug/L
MW-14-5	1832621-02	Hexachloroethane	10/21/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
MW-14-5	1832621-02	Tetrahydrofuran	10/21/2018	20	Y	n	u		20	5.2	ug/L
MW-14-5	1832621-02	Propionitrile	10/21/2018	20	Y	n	u		20	6.2	ug/L
MW-14-5	1832621-02	Pentachloroethane	10/21/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-14-5	1832621-02	Methyl methacrylate	10/21/2018	5	Y	n	u		5.0	1.2	ug/L
MW-14-5	1832621-02	Methyl isobutyl ketone	10/21/2018	10	Y	n	u		10	2.4	ug/L
MW-14-5	1832621-02	Methyl iodide	10/21/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-14-5	1832621-02	Methyl ethyl ketone	10/21/2018	10	Y	n	u		10	3.3	ug/L
MW-14-5	1832621-02	Methacrylonitrile	10/21/2018	10	Y	n	u		10	2.3	ug/L
MW-14-5	1832621-02	o-Xylene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-14-5	1832621-02	1,1-Dichloropropanone	10/21/2018	0	Y	y	v				ug/L
MW-14-5	1832621-02	Dibromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-14-5	1832621-02	1,1-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-14-5	1832621-02	1,2-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-14-5	1832621-02	1,1-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-14-5	1832621-02	Dichlorodifluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-14-5	1832621-02	1,4-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-14-5	1832621-02	1,3-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-14-5	1832621-02	1,2-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-14-5	1832621-02	Dibromomethane	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L



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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-14-5	1832621-02	cis-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-14-5	1832621-02	1,2-Dibromo-3-chloropropane	10/21/2018	1	Y	n	u		1.0	0.89	ug/L
MW-14-5	1832621-02	2-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-14-5	1832621-02	4-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-14-5	1832621-02	Carbon tetrachloride	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-14-5	1832621-02	Chloromethane	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-14-5	1832621-02	Chloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-14-5	1832621-02	Chlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-14-5	1832621-02	sec-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-14-5	1832621-02	tert-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-14-5	1832621-02	Toluene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-14-5	1832621-02	1-Chlorobutane	10/21/2018	0	Y	y	v				ug/L
MW-14-5	1832621-02	1,2-Dibromoethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-14-5	1832621-02	Naphthalene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-14-5	1832621-02	Tetrachloroethene	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-14-5	1832621-02	1,1,2,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-14-5	1832621-02	Chloroform	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-14-5	1832621-02	trans-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-14-5	1832621-02	1,1,1,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-14-5	1832621-02	Styrene	10/21/2018	0.17	Y	y	v j		0.50	0.12	ug/L
MW-14-5	1832621-02	n-Propylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-14-5	1832621-02	Methyl t-butyl ether	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-14-5	1832621-02	Methylene chloride	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-14-5	1832621-02	p-Isopropyltoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-14-5	1832621-02	Isopropylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-14-5	1832621-02	Bromobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-14-5	1832621-02	Benzene	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-14-5	1832621-02	1,3-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-14-5	1832621-02	2,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-14-5	1832621-02	cis-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-14-5	1832621-02	1,1-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-14-5	1832621-02	1,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-14-5	1832621-02	trans-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-14-5	1832621-02	Ethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-14-5	1832621-02	Hexachlorobutadiene	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-25-1	1832621-10	Methyl t-butyl ether	10/21/2018	0.54	Y	y	v		0.50	0.14	ug/L
MW-25-1	1832621-10	Methylene chloride	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-25-1	1832621-10	n-Propylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-25-1	1832621-10	Styrene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-25-1	1832621-10	1,1,1,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-25-1	1832621-10	Naphthalene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-25-1	1832621-10	1,1,2,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-25-1	1832621-10	1,2,4-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-25-1	1832621-10	Toluene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-25-1	1832621-10	1,1,2-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-25-1	1832621-10	1,2,3-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-25-1	1832621-10	p-Isopropyltoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-25-1	1832621-10	trans-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-25-1	1832621-10	1,1,1-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-25-1	1832621-10	Trichloroethene	10/21/2018	1.2	Y	y	v		0.50	0.19	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-25-1	1832621-10	Tetrachloroethene	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-25-1	1832621-10	1,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-25-1	1832621-10	1,2-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-25-1	1832621-10	1,3-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-25-1	1832621-10	Trichlorofluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-25-1	1832621-10	1,4-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-25-1	1832621-10	1,1-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-25-1	1832621-10	1,3-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-25-1	1832621-10	cis-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-25-1	1832621-10	Isopropylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-25-1	1832621-10	2,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-25-1	1832621-10	1,1-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-25-1	1832621-10	cis-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-25-1	1832621-10	trans-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-25-1	1832621-10	Ethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-25-1	1832621-10	Hexachlorobutadiene	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-25-1	1832621-10	1,1-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-25-1	1832621-10	p- & m-Xylenes	10/21/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-25-1	1832621-10	Methyl ethyl ketone	10/21/2018	10	Y	n	u		10	3.3	ug/L
MW-25-1	1832621-10	Methyl acrylate	10/21/2018	0	Y	y	v				ug/L
MW-25-1	1832621-10	Methyl iodide	10/21/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-25-1	1832621-10	Methyl isobutyl ketone	10/21/2018	10	Y	n	u		10	2.4	ug/L
MW-25-1	1832621-10	Methyl methacrylate	10/21/2018	5	Y	n	u		5.0	1.2	ug/L
MW-25-1	1832621-10	Pentachloroethane	10/21/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-25-1	1832621-10	Methacrylonitrile	10/21/2018	10	Y	n	u		10	2.3	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-25-1	1832621-10	Tetrahydrofuran	10/21/2018	20	Y	n	u		20	5.2	ug/L
MW-25-1	1832621-10	Nitrobenzene	10/21/2018	0	Y	y	v				ug/L
MW-25-1	1832621-10	o-Xylene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-25-1	1832621-10	Chloroacetonitrile	10/21/2018	0	Y	y	v				ug/L
MW-25-1	1832621-10	1-Chlorobutane	10/21/2018	0	Y	y	v				ug/L
MW-25-1	1832621-10	1,1-Dichloropropanone	10/21/2018	0	Y	y	v				ug/L
MW-25-1	1832621-10	Dibromomethane	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-25-1	1832621-10	Dichlorodifluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-25-1	1832621-10	Propionitrile	10/21/2018	20	Y	n	u		20	6.2	ug/L
MW-25-1	1832621-10	t-Butyl alcohol	10/21/2018	10	Y	n	u		10	9.4	ug/L
MW-25-1	1832621-10	1,1,2-Trichloro-1,2,2-trifluoroethane	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-25-1	1832621-10	1,2,4-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-25-1	1832621-10	1,3,5-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-25-1	1832621-10	Vinyl chloride	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-25-1	1832621-10	Acetone	10/21/2018	10	Y	n	u		10	6.6	ug/L
MW-25-1	1832621-10	Acrylonitrile	10/21/2018	5	Y	n	u		5.0	1.5	ug/L
MW-25-1	1832621-10	2-Hexanone	10/21/2018	10	Y	n	u		10	5.0	ug/L
MW-25-1	1832621-10	t-Amyl Methyl ether	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-25-1	1832621-10	Hexachloroethane	10/21/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
MW-25-1	1832621-10	Carbon disulfide	10/21/2018	1	Y	n	u		1.0	0.48	ug/L
MW-25-1	1832621-10	trans-1,4-Dichloro-2-butene	10/21/2018	5	Y	n	u		5.0	1.8	ug/L
MW-25-1	1832621-10	Diethyl ether	10/21/2018	2	Y	n	u		2.0	0.33	ug/L
MW-25-1	1832621-10	Ethyl methacrylate	10/21/2018	4	Y	n	u		4.0	1.3	ug/L
MW-25-1	1832621-10	Ethyl t-butyl ether	10/21/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
MW-25-1	1832621-10	2-Nitropropane	10/21/2018	0	Y	y	v				ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-25-1	1832621-10	1,2,3-Trichloropropane	10/21/2018	1	Y	n	u		1.0	0.78	ug/L
MW-25-1	1832621-10	Allyl chloride	10/21/2018	5	Y	n	u		5.0	0.47	ug/L
MW-25-1	1832621-10	4-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-25-1	1832621-10	1,2-Dibromo-3-chloropropane	10/21/2018	1	Y	n	u		1.0	0.89	ug/L
MW-25-1	1832621-10	1,2-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-25-1	1832621-10	Dibromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-25-1	1832621-10	1,2-Dibromoethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-25-1	1832621-10	2-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-25-1	1832621-10	Chloromethane	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-25-1	1832621-10	Chloroform	10/21/2018	0.37	Y	y	v j		0.50	0.14	ug/L
MW-25-1	1832621-10	Chloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-25-1	1832621-10	Chlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-25-1	1832621-10	Carbon tetrachloride	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-25-1	1832621-10	sec-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-25-1	1832621-10	n-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-25-1	1832621-10	Bromomethane	10/21/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-25-1	1832621-10	Bromoform	10/21/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-25-1	1832621-10	Bromodichloromethane	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-25-1	1832621-10	Bromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-25-1	1832621-10	Bromobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-25-1	1832621-10	Benzene	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-25-1	1832621-10	tert-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-25-2	1832621-09	1,1,2-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-25-2	1832621-09	Tetrachloroethene	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-25-2	1832621-09	Toluene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-25-2	1832621-09	1,2,3-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-25-2	1832621-09	1,1,2,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-25-2	1832621-09	1,1,1-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-25-2	1832621-09	1,2,4-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-25-2	1832621-09	1,1,1,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-25-2	1832621-09	Styrene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-25-2	1832621-09	p-Isopropyltoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-25-2	1832621-09	Naphthalene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-25-2	1832621-09	Methyl t-butyl ether	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-25-2	1832621-09	Methylene chloride	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-25-2	1832621-09	Hexachlorobutadiene	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-25-2	1832621-09	Isopropylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-25-2	1832621-09	n-Propylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-25-2	1832621-09	o-Xylene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-25-2	1832621-09	Methyl ethyl ketone	10/21/2018	10	Y	n	u		10	3.3	ug/L
MW-25-2	1832621-09	Methyl iodide	10/21/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-25-2	1832621-09	2-Nitropropane	10/21/2018	0	Y	y	v				ug/L
MW-25-2	1832621-09	Nitrobenzene	10/21/2018	0	Y	y	v				ug/L
MW-25-2	1832621-09	Methyl acrylate	10/21/2018	0	Y	y	v				ug/L
MW-25-2	1832621-09	1,1-Dichloropropanone	10/21/2018	0	Y	y	v				ug/L
MW-25-2	1832621-09	Trichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-25-2	1832621-09	Chloroacetonitrile	10/21/2018	0	Y	y	v				ug/L
MW-25-2	1832621-09	Hexachloroethane	10/21/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
MW-25-2	1832621-09	p- & m-Xylenes	10/21/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-25-2	1832621-09	Tetrahydrofuran	10/21/2018	20	Y	n	u		20	5.2	ug/L

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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-25-2	1832621-09	Propionitrile	10/21/2018	20	Y	n	u		20	6.2	ug/L
MW-25-2	1832621-09	Pentachloroethane	10/21/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-25-2	1832621-09	Methyl methacrylate	10/21/2018	5	Y	n	u		5.0	1.2	ug/L
MW-25-2	1832621-09	Methyl isobutyl ketone	10/21/2018	10	Y	n	u		10	2.4	ug/L
MW-25-2	1832621-09	1-Chlorobutane	10/21/2018	0	Y	y	v				ug/L
MW-25-2	1832621-09	1,3-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-25-2	1832621-09	Allyl chloride	10/21/2018	5	Y	n	u		5.0	0.47	ug/L
MW-25-2	1832621-09	1,2,3-Trichloropropane	10/21/2018	1	Y	n	u		1.0	0.78	ug/L
MW-25-2	1832621-09	1,1,2-Trichloro-1,2,2-trifluoroethane	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-25-2	1832621-09	1,2,4-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-25-2	1832621-09	1,3,5-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-25-2	1832621-09	Vinyl chloride	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-25-2	1832621-09	Methacrylonitrile	10/21/2018	10	Y	n	u		10	2.3	ug/L
MW-25-2	1832621-09	Acrylonitrile	10/21/2018	5	Y	n	u		5.0	1.5	ug/L
MW-25-2	1832621-09	2-Hexanone	10/21/2018	10	Y	n	u		10	5.0	ug/L
MW-25-2	1832621-09	t-Amyl Methyl ether	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-25-2	1832621-09	Carbon disulfide	10/21/2018	1	Y	n	u		1.0	0.48	ug/L
MW-25-2	1832621-09	trans-1,4-Dichloro-2-butene	10/21/2018	5	Y	n	u		5.0	1.8	ug/L
MW-25-2	1832621-09	Diethyl ether	10/21/2018	2	Y	n	u		2.0	0.33	ug/L
MW-25-2	1832621-09	Ethyl methacrylate	10/21/2018	4	Y	n	u		4.0	1.3	ug/L
MW-25-2	1832621-09	Ethyl t-butyl ether	10/21/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
MW-25-2	1832621-09	Trichlorofluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-25-2	1832621-09	Acetone	10/21/2018	10	Y	n	u		10	6.6	ug/L
MW-25-2	1832621-09	2,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-25-2	1832621-09	Chloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-25-2	1832621-09	Chloroform	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-25-2	1832621-09	Chloromethane	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-25-2	1832621-09	2-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-25-2	1832621-09	4-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-25-2	1832621-09	Dibromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-25-2	1832621-09	1,2-Dibromo-3-chloropropane	10/21/2018	1	Y	n	u		1.0	0.89	ug/L
MW-25-2	1832621-09	1,2-Dibromoethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-25-2	1832621-09	Dibromomethane	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-25-2	1832621-09	1,2-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-25-2	1832621-09	Chlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-25-2	1832621-09	cis-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-25-2	1832621-09	trans-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-25-2	1832621-09	1,3-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-25-2	1832621-09	1,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-25-2	1832621-09	trans-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-25-2	1832621-09	cis-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-25-2	1832621-09	1,1-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-25-2	1832621-09	1,2-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-25-2	1832621-09	1,1-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-25-2	1832621-09	Dichlorodifluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-25-2	1832621-09	1,4-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-25-2	1832621-09	t-Butyl alcohol	10/21/2018	10	Y	n	u		10	9.4	ug/L
MW-25-2	1832621-09	Ethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-25-2	1832621-09	Benzene	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-25-2	1832621-09	tert-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L



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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-25-2	1832621-09	sec-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-25-2	1832621-09	n-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-25-2	1832621-09	Bromomethane	10/21/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-25-2	1832621-09	Bromoform	10/21/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-25-2	1832621-09	Bromodichloromethane	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-25-2	1832621-09	Bromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-25-2	1832621-09	Bromobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-25-2	1832621-09	1,1-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-25-2	1832621-09	Carbon tetrachloride	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-25-3	1832621-08	Hexachlorobutadiene	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-25-3	1832621-08	Isopropylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-25-3	1832621-08	p-Isopropyltoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-25-3	1832621-08	trans-1,4-Dichloro-2-butene	10/22/2018	5	Y	n	u		5.0	1.8	ug/L
MW-25-3	1832621-08	Methylene chloride	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-25-3	1832621-08	Methyl t-butyl ether	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-25-3	1832621-08	Ethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-25-3	1832621-08	n-Propylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-25-3	1832621-08	1,2-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-25-3	1832621-08	Naphthalene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-25-3	1832621-08	trans-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-25-3	1832621-08	cis-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-25-3	1832621-08	1,1-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-25-3	1832621-08	Styrene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-25-3	1832621-08	1,3-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-25-3	1832621-08	t-Butyl alcohol	10/22/2018	10	Y	n	u		10	9.4	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-25-3	1832621-08	trans-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-25-3	1832621-08	cis-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-25-3	1832621-08	1,1-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-25-3	1832621-08	1,2-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-25-3	1832621-08	1,1-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-25-3	1832621-08	2,2-Dichloropropane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.18	ug/L
MW-25-3	1832621-08	Vinyl chloride	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-25-3	1832621-08	1,1,2-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-25-3	1832621-08	Trichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-25-3	1832621-08	Trichlorofluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-25-3	1832621-08	1,1,1-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-25-3	1832621-08	Bromoform	10/22/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-25-3	1832621-08	1,2,3-Trichloropropane	10/22/2018	1	Y	n	u		1.0	0.78	ug/L
MW-25-3	1832621-08	Dichlorodifluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-25-3	1832621-08	1,1,2-Trichloro-1,2,2-trifluoroethane	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-25-3	1832621-08	1,2,3-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-25-3	1832621-08	1,3,5-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-25-3	1832621-08	1,1,1,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-25-3	1832621-08	Acetone	10/22/2018	10	Y	n	u		10	6.6	ug/L
MW-25-3	1832621-08	Acrylonitrile	10/22/2018	5	Y	n	u		5.0	1.5	ug/L
MW-25-3	1832621-08	Allyl chloride	10/22/2018	5	Y	n	u		5.0	0.47	ug/L
MW-25-3	1832621-08	1,2,4-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-25-3	1832621-08	t-Amyl Methyl ether	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-25-3	1832621-08	Carbon disulfide	10/22/2018	1	Y	n	u		1.0	0.48	ug/L
MW-25-3	1832621-08	Toluene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-25-3	1832621-08	Tetrachloroethene	10/22/2018	0.54	Y	y	v		0.50	0.23	ug/L
MW-25-3	1832621-08	1,1,2,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-25-3	1832621-08	1,2,4-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-25-3	1832621-08	o-Xylene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-25-3	1832621-08	n-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-25-3	1832621-08	Ethyl t-butyl ether	10/22/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
MW-25-3	1832621-08	Methyl ethyl ketone	10/22/2018	10	Y	n	u		10	3.3	ug/L
MW-25-3	1832621-08	2-Hexanone	10/22/2018	10	Y	n	u		10	5.0	ug/L
MW-25-3	1832621-08	2-Nitropropane	10/22/2018	0	Y	y	v				ug/L
MW-25-3	1832621-08	Nitrobenzene	10/22/2018	0	Y	y	v				ug/L
MW-25-3	1832621-08	Methyl acrylate	10/22/2018	0	Y	y	v				ug/L
MW-25-3	1832621-08	1,1-Dichloropropanone	10/22/2018	0	Y	y	v				ug/L
MW-25-3	1832621-08	Ethyl methacrylate	10/22/2018	4	Y	n	u		4.0	1.3	ug/L
MW-25-3	1832621-08	Chloroacetonitrile	10/22/2018	0	Y	y	v				ug/L
MW-25-3	1832621-08	Benzene	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-25-3	1832621-08	p- & m-Xylenes	10/22/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-25-3	1832621-08	Tetrahydrofuran	10/22/2018	20	Y	n	u		20	5.2	ug/L
MW-25-3	1832621-08	Propionitrile	10/22/2018	20	Y	n	u		20	6.2	ug/L
MW-25-3	1832621-08	Pentachloroethane	10/22/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-25-3	1832621-08	Methyl methacrylate	10/22/2018	5	Y	n	u		5.0	1.2	ug/L
MW-25-3	1832621-08	Methyl isobutyl ketone	10/22/2018	10	Y	n	u		10	2.4	ug/L
MW-25-3	1832621-08	Methyl iodide	10/22/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-25-3	1832621-08	Diethyl ether	10/22/2018	2	Y	n	u		2.0	0.33	ug/L
MW-25-3	1832621-08	1-Chlorobutane	10/22/2018	0	Y	y	v				ug/L
MW-25-3	1832621-08	Chlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-25-3	1832621-08	1,3-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-25-3	1832621-08	1,2-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-25-3	1832621-08	Dibromomethane	10/22/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-25-3	1832621-08	1,2-Dibromoethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-25-3	1832621-08	1,2-Dibromo-3-chloropropane	10/22/2018	1	Y	n	u		1.0	0.89	ug/L
MW-25-3	1832621-08	Dibromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-25-3	1832621-08	4-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-25-3	1832621-08	2-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-25-3	1832621-08	Chloromethane	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-25-3	1832621-08	Methacrylonitrile	10/22/2018	10	Y	n	u		10	2.3	ug/L
MW-25-3	1832621-08	Chloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-25-3	1832621-08	1,4-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-25-3	1832621-08	Carbon tetrachloride	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-25-3	1832621-08	tert-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-25-3	1832621-08	sec-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-25-3	1832621-08	Bromomethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-25-3	1832621-08	Hexachloroethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
MW-25-3	1832621-08	Bromodichloromethane	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-25-3	1832621-08	Bromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-25-3	1832621-08	Bromobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-25-3	1832621-08	Chloroform	10/22/2018	0.4	Y	y	v j		0.50	0.14	ug/L
MW-25-4	1832621-07	Dibromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-25-4	1832621-07	trans-1,4-Dichloro-2-butene	10/21/2018	5	Y	n	u		5.0	1.8	ug/L
MW-25-4	1832621-07	Propionitrile	10/21/2018	20	Y	n	u		20	6.2	ug/L
MW-25-4	1832621-07	Tetrahydrofuran	10/21/2018	20	Y	n	u		20	5.2	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-25-4	1832621-07	p- & m-Xylenes	10/21/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-25-4	1832621-07	o-Xylene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-25-4	1832621-07	Chloroacetonitrile	10/21/2018	0	Y	y	v				ug/L
MW-25-4	1832621-07	1,1-Dichloropropanone	10/21/2018	0	Y	y	v				ug/L
MW-25-4	1832621-07	Nitrobenzene	10/21/2018	0	Y	y	v				ug/L
MW-25-4	1832621-07	Ethyl t-butyl ether	10/21/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
MW-25-4	1832621-07	1,2,4-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-25-4	1832621-07	Diethyl ether	10/21/2018	2	Y	n	u		2.0	0.33	ug/L
MW-25-4	1832621-07	Methyl isobutyl ketone	10/21/2018	10	Y	n	u		10	2.4	ug/L
MW-25-4	1832621-07	Carbon disulfide	10/21/2018	1	Y	n	u		1.0	0.48	ug/L
MW-25-4	1832621-07	t-Butyl alcohol	10/21/2018	10	Y	n	u		10	9.4	ug/L
MW-25-4	1832621-07	t-Amyl Methyl ether	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-25-4	1832621-07	Allyl chloride	10/21/2018	5	Y	n	u		5.0	0.47	ug/L
MW-25-4	1832621-07	Acrylonitrile	10/21/2018	5	Y	n	u		5.0	1.5	ug/L
MW-25-4	1832621-07	Acetone	10/21/2018	10	Y	n	u		10	6.6	ug/L
MW-25-4	1832621-07	Vinyl chloride	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-25-4	1832621-07	1,3,5-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-25-4	1832621-07	Ethyl methacrylate	10/21/2018	4	Y	n	u		4.0	1.3	ug/L
MW-25-4	1832621-07	Carbon tetrachloride	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-25-4	1832621-07	2-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-25-4	1832621-07	Benzene	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-25-4	1832621-07	Bromobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-25-4	1832621-07	Bromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-25-4	1832621-07	Bromodichloromethane	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-25-4	1832621-07	Bromoform	10/21/2018	0.5	Y	n	u		0.50	0.46	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-25-4	1832621-07	Bromomethane	10/21/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-25-4	1832621-07	n-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-25-4	1832621-07	Pentachloroethane	10/21/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-25-4	1832621-07	tert-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-25-4	1832621-07	Methyl methacrylate	10/21/2018	5	Y	n	u		5.0	1.2	ug/L
MW-25-4	1832621-07	Chlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-25-4	1832621-07	Chloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-25-4	1832621-07	Chloroform	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-25-4	1832621-07	Hexachloroethane	10/21/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
MW-25-4	1832621-07	2-Hexanone	10/21/2018	10	Y	n	u		10	5.0	ug/L
MW-25-4	1832621-07	Methacrylonitrile	10/21/2018	10	Y	n	u		10	2.3	ug/L
MW-25-4	1832621-07	Methyl ethyl ketone	10/21/2018	10	Y	n	u		10	3.3	ug/L
MW-25-4	1832621-07	Methyl iodide	10/21/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-25-4	1832621-07	Methyl acrylate	10/21/2018	0	Y	y	v				ug/L
MW-25-4	1832621-07	sec-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-25-4	1832621-07	Dichlorodifluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-25-4	1832621-07	cis-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-25-4	1832621-07	1,1-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-25-4	1832621-07	2,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-25-4	1832621-07	1,3-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-25-4	1832621-07	1,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-25-4	1832621-07	trans-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-25-4	1832621-07	cis-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-25-4	1832621-07	1,1-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-25-4	1832621-07	trans-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L

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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-25-4	1832621-07	1,1-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-25-4	1832621-07	1,3-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-25-4	1832621-07	1,4-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-25-4	1832621-07	1,1,2-Trichloro-1,2,2-trifluoroethane	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-25-4	1832621-07	1,2-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-25-4	1832621-07	1-Chlorobutane	10/21/2018	0	Y	y	v				ug/L
MW-25-4	1832621-07	1,2-Dibromoethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-25-4	1832621-07	2-Nitropropane	10/21/2018	0	Y	y	v				ug/L
MW-25-4	1832621-07	1,2-Dibromo-3-chloropropane	10/21/2018	1	Y	n	u		1.0	0.89	ug/L
MW-25-4	1832621-07	4-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-25-4	1832621-07	Chloromethane	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-25-4	1832621-07	1,2-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-25-4	1832621-07	1,1,1-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-25-4	1832621-07	1,2,3-Trichloropropane	10/21/2018	1	Y	n	u		1.0	0.78	ug/L
MW-25-4	1832621-07	Dibromomethane	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-25-4	1832621-07	Ethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-25-4	1832621-07	Trichlorofluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-25-4	1832621-07	1,1,2-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-25-4	1832621-07	1,2,4-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-25-4	1832621-07	1,2,3-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-25-4	1832621-07	Toluene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-25-4	1832621-07	Tetrachloroethene	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-25-4	1832621-07	1,1,2,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-25-4	1832621-07	Methyl t-butyl ether	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-25-4	1832621-07	p-Isopropyltoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-25-4	1832621-07	Trichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-25-4	1832621-07	1,1,1,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-25-4	1832621-07	Isopropylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-25-4	1832621-07	Methylene chloride	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-25-4	1832621-07	Hexachlorobutadiene	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-25-4	1832621-07	Naphthalene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-25-4	1832621-07	n-Propylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-25-4	1832621-07	Styrene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-25-5	1832621-06	Ethyl methacrylate	10/21/2018	4	Y	n	u		4.0	1.3	ug/L
MW-25-5	1832621-06	Acetone	10/21/2018	10	Y	n	u		10	6.6	ug/L
MW-25-5	1832621-06	trans-1,4-Dichloro-2-butene	10/21/2018	5	Y	n	u		5.0	1.8	ug/L
MW-25-5	1832621-06	Ethyl t-butyl ether	10/21/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
MW-25-5	1832621-06	Carbon disulfide	10/21/2018	1	Y	n	u		1.0	0.48	ug/L
MW-25-5	1832621-06	t-Butyl alcohol	10/21/2018	10	Y	n	u		10	9.4	ug/L
MW-25-5	1832621-06	Diethyl ether	10/21/2018	2	Y	n	u		2.0	0.33	ug/L
MW-25-5	1832621-06	t-Amyl Methyl ether	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-25-5	1832621-06	Acrylonitrile	10/21/2018	5	Y	n	u		5.0	1.5	ug/L
MW-25-5	1832621-06	Vinyl chloride	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-25-5	1832621-06	Hexachloroethane	10/21/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
MW-25-5	1832621-06	1-Chlorobutane	10/21/2018	0	Y	y	v				ug/L
MW-25-5	1832621-06	1,2,4-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-25-5	1832621-06	1,3,5-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-25-5	1832621-06	Allyl chloride	10/21/2018	5	Y	n	u		5.0	0.47	ug/L
MW-25-5	1832621-06	p- & m-Xylenes	10/21/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-25-5	1832621-06	1,1,2-Trichloro-1,2,2-trifluoroethane	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L



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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-25-5	1832621-06	Methyl ethyl ketone	10/21/2018	10	Y	n	u		10	3.3	ug/L
MW-25-5	1832621-06	2-Nitropropane	10/21/2018	0	Y	y	v				ug/L
MW-25-5	1832621-06	Nitrobenzene	10/21/2018	0	Y	y	v				ug/L
MW-25-5	1832621-06	Methyl acrylate	10/21/2018	0	Y	y	v				ug/L
MW-25-5	1832621-06	o-Xylene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-25-5	1832621-06	Chloroacetonitrile	10/21/2018	0	Y	y	v				ug/L
MW-25-5	1832621-06	2-Hexanone	10/21/2018	10	Y	n	u		10	5.0	ug/L
MW-25-5	1832621-06	Tetrahydrofuran	10/21/2018	20	Y	n	u		20	5.2	ug/L
MW-25-5	1832621-06	Propionitrile	10/21/2018	20	Y	n	u		20	6.2	ug/L
MW-25-5	1832621-06	Pentachloroethane	10/21/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-25-5	1832621-06	Methyl methacrylate	10/21/2018	5	Y	n	u		5.0	1.2	ug/L
MW-25-5	1832621-06	Methyl iodide	10/21/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-25-5	1832621-06	Methacrylonitrile	10/21/2018	10	Y	n	u		10	2.3	ug/L
MW-25-5	1832621-06	1,1-Dichloropropanone	10/21/2018	0	Y	y	v				ug/L
MW-25-5	1832621-06	Chloromethane	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-25-5	1832621-06	cis-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-25-5	1832621-06	1,1-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-25-5	1832621-06	1,2-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-25-5	1832621-06	1,1-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-25-5	1832621-06	Dichlorodifluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-25-5	1832621-06	1,4-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-25-5	1832621-06	1,3-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-25-5	1832621-06	1,2-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-25-5	1832621-06	Dibromomethane	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-25-5	1832621-06	1,2-Dibromoethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-25-5	1832621-06	1,2-Dibromo-3-chloropropane	10/21/2018	1	Y	n	u		1.0	0.89	ug/L
MW-25-5	1832621-06	Dibromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-25-5	1832621-06	trans-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-25-5	1832621-06	2-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-25-5	1832621-06	tert-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-25-5	1832621-06	Chloroform	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-25-5	1832621-06	Chloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-25-5	1832621-06	Chlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-25-5	1832621-06	Carbon tetrachloride	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-25-5	1832621-06	sec-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-25-5	1832621-06	Bromomethane	10/21/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-25-5	1832621-06	Bromoform	10/21/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-25-5	1832621-06	Bromodichloromethane	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-25-5	1832621-06	Bromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-25-5	1832621-06	Bromobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-25-5	1832621-06	Benzene	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-25-5	1832621-06	1,2,3-Trichloropropane	10/21/2018	1	Y	n	u		1.0	0.78	ug/L
MW-25-5	1832621-06	Methyl isobutyl ketone	10/21/2018	10	Y	n	u		10	2.4	ug/L
MW-25-5	1832621-06	4-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-25-5	1832621-06	Tetrachloroethene	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-25-5	1832621-06	Trichlorofluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-25-5	1832621-06	Trichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-25-5	1832621-06	n-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-25-5	1832621-06	1,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-25-5	1832621-06	1,1,2-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-25-5	1832621-06	1,1,1-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-25-5	1832621-06	1,2,4-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-25-5	1832621-06	Toluene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-25-5	1832621-06	1,1,2,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-25-5	1832621-06	1,1,1,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-25-5	1832621-06	Styrene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-25-5	1832621-06	n-Propylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-25-5	1832621-06	Naphthalene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-25-5	1832621-06	Methyl t-butyl ether	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-25-5	1832621-06	p-Isopropyltoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-25-5	1832621-06	Isopropylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-25-5	1832621-06	Hexachlorobutadiene	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-25-5	1832621-06	Ethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-25-5	1832621-06	1,3-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-25-5	1832621-06	trans-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-25-5	1832621-06	2,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-25-5	1832621-06	1,2,3-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-25-5	1832621-06	Methylene chloride	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-25-5	1832621-06	1,1-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-25-5	1832621-06	cis-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-2-101618	1832621-01	cis-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
TB-2-101618	1832621-01	cis-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-2-101618	1832621-01	1,1-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
TB-2-101618	1832621-01	2,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
TB-2-101618	1832621-01	1,3-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
TB-2-101618	1832621-01	trans-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-2-101618	1832621-01	p-Isopropyltoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-2-101618	1832621-01	Tetrachloroethene	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
TB-2-101618	1832621-01	1,1-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
TB-2-101618	1832621-01	1,2-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-2-101618	1832621-01	1,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-2-101618	1832621-01	trans-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
TB-2-101618	1832621-01	Ethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-2-101618	1832621-01	Isopropylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-2-101618	1832621-01	Methylene chloride	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
TB-2-101618	1832621-01	1,1,2,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-2-101618	1832621-01	1,1,1,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
TB-2-101618	1832621-01	1,1-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-2-101618	1832621-01	Styrene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
TB-2-101618	1832621-01	Chloroform	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-2-101618	1832621-01	Methyl t-butyl ether	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-2-101618	1832621-01	Naphthalene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
TB-2-101618	1832621-01	n-Propylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
TB-2-101618	1832621-01	Hexachlorobutadiene	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
TB-2-101618	1832621-01	Chlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-2-101618	1832621-01	Bromomethane	10/21/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
TB-2-101618	1832621-01	Bromoform	10/21/2018	0.5	Y	n	u		0.50	0.46	ug/L
TB-2-101618	1832621-01	Bromodichloromethane	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
TB-2-101618	1832621-01	Bromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
TB-2-101618	1832621-01	Bromobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
TB-2-101618	1832621-01	Propionitrile	10/21/2018	20	Y	n	u		20	6.2	ug/L
TB-2-101618	1832621-01	Toluene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-2-101618	1832621-01	n-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-2-101618	1832621-01	sec-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
TB-2-101618	1832621-01	2-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-2-101618	1832621-01	Carbon tetrachloride	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-2-101618	1832621-01	Dichlorodifluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-2-101618	1832621-01	Chloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-2-101618	1832621-01	Chloromethane	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
TB-2-101618	1832621-01	4-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.093	ug/L
TB-2-101618	1832621-01	Dibromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
TB-2-101618	1832621-01	1,2-Dibromo-3-chloropropane	10/21/2018	1	Y	n	u		1.0	0.89	ug/L
TB-2-101618	1832621-01	1,2-Dibromoethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
TB-2-101618	1832621-01	Dibromomethane	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
TB-2-101618	1832621-01	1,2-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
TB-2-101618	1832621-01	1,3-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
TB-2-101618	1832621-01	1,4-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-2-101618	1832621-01	tert-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
TB-2-101618	1832621-01	o-Xylene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
TB-2-101618	1832621-01	Hexachloroethane	10/21/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
TB-2-101618	1832621-01	2-Hexanone	10/21/2018	10	Y	n	u		10	5.0	ug/L
TB-2-101618	1832621-01	1,2,3-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
TB-2-101618	1832621-01	Methyl ethyl ketone	10/21/2018	10	Y	n	u		10	3.3	ug/L
TB-2-101618	1832621-01	Methyl methacrylate	10/21/2018	5	Y	n	u		5.0	1.2	ug/L
TB-2-101618	1832621-01	Methyl isobutyl ketone	10/21/2018	10	Y	n	u		10	2.4	ug/L

SDG: 1832621

Analytical Method		EPA-524.2										
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units	
TB-2-101618	1832621-01	Pentachloroethane	10/21/2018	2	Y	n	u	UJ	2.0	0.63	ug/L	
TB-2-101618	1832621-01	Ethyl t-butyl ether	10/21/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L	
TB-2-101618	1832621-01	p- & m-Xylenes	10/21/2018	0.5	Y	n	u		0.50	0.34	ug/L	
TB-2-101618	1832621-01	Methacrylonitrile	10/21/2018	10	Y	n	u		10	2.3	ug/L	
TB-2-101618	1832621-01	Chloroacetonitrile	10/21/2018	0	Y	y	v				ug/L	
TB-2-101618	1832621-01	1-Chlorobutane	10/21/2018	0	Y	y	v				ug/L	
TB-2-101618	1832621-01	1,1-Dichloropropanone	10/21/2018	0	Y	y	v				ug/L	
TB-2-101618	1832621-01	Methyl acrylate	10/21/2018	0	Y	y	v				ug/L	
TB-2-101618	1832621-01	Nitrobenzene	10/21/2018	0	Y	y	v				ug/L	
TB-2-101618	1832621-01	2-Nitropropane	10/21/2018	0	Y	y	v				ug/L	
TB-2-101618	1832621-01	Benzene	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L	
TB-2-101618	1832621-01	Tetrahydrofuran	10/21/2018	20	Y	n	u		20	5.2	ug/L	
TB-2-101618	1832621-01	Trichlorofluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L	
TB-2-101618	1832621-01	1,2,4-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L	
TB-2-101618	1832621-01	1,1,1-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L	
TB-2-101618	1832621-01	Methyl iodide	10/21/2018	2	Y	n	u	UJ	2.0	1.1	ug/L	
TB-2-101618	1832621-01	Trichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L	
TB-2-101618	1832621-01	Ethyl methacrylate	10/21/2018	4	Y	n	u		4.0	1.3	ug/L	
TB-2-101618	1832621-01	1,2,3-Trichloropropane	10/21/2018	1	Y	n	u		1.0	0.78	ug/L	
TB-2-101618	1832621-01	1,1,2-Trichloro-1,2,2-trifluoroethane	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L	
TB-2-101618	1832621-01	1,2,4-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L	
TB-2-101618	1832621-01	1,3,5-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L	
TB-2-101618	1832621-01	Diethyl ether	10/21/2018	2	Y	n	u		2.0	0.33	ug/L	
TB-2-101618	1832621-01	Acetone	10/21/2018	10	Y	n	u		10	6.6	ug/L	
TB-2-101618	1832621-01	Acrylonitrile	10/21/2018	5	Y	n	u		5.0	1.5	ug/L	

SDG: 1832621

<b>Analytical Method</b>		EPA-524.2									
<b>Sample ID</b>	<b>Lab Sample ID</b>	<b>Chemical Name</b>	<b>Anal Date</b>	<b>Result</b>	<b>Report</b>	<b>Detect</b>	<b>Lab Qual</b>	<b>Val Qual</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
TB-2-101618	1832621-01	Allyl chloride	10/21/2018	5	Y	n	u		5.0	0.47	ug/L
TB-2-101618	1832621-01	t-Amyl Methyl ether	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
TB-2-101618	1832621-01	t-Butyl alcohol	10/21/2018	10	Y	n	u		10	9.4	ug/L
TB-2-101618	1832621-01	Carbon disulfide	10/21/2018	1	Y	n	u		1.0	0.48	ug/L
TB-2-101618	1832621-01	trans-1,4-Dichloro-2-butene	10/21/2018	5	Y	n	u		5.0	1.8	ug/L
TB-2-101618	1832621-01	Vinyl chloride	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
TB-2-101618	1832621-01	1,1,2-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L

<b>Analytical Method</b>		EPA-7196									
<b>Sample ID</b>	<b>Lab Sample ID</b>	<b>Chemical Name</b>	<b>Anal Date</b>	<b>Result</b>	<b>Report</b>	<b>Detect</b>	<b>Lab Qual</b>	<b>Val Qual</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
EB-2-101618	1832621-11	Hexavalent Chromium	10/17/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
MW-14-2	1832621-05	Hexavalent Chromium	10/17/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
MW-14-3	1832621-04	Hexavalent Chromium	10/17/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
MW-14-4	1832621-03	Hexavalent Chromium	10/17/2018	0.0024	Y	y	v		0.0020	0.0007	mg/L
MW-14-5	1832621-02	Hexavalent Chromium	10/17/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
MW-25-1	1832621-10	Hexavalent Chromium	10/17/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
MW-25-2	1832621-09	Hexavalent Chromium	10/17/2018	0.0036	Y	y	v		0.0020	0.0007	mg/L
MW-25-3	1832621-08	Hexavalent Chromium	10/17/2018	0.0033	Y	y	v		0.0020	0.0007	mg/L
MW-25-4	1832621-07	Hexavalent Chromium	10/17/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
MW-25-5	1832621-06	Hexavalent Chromium	10/17/2018	0.002	Y	n	u		0.0020	0.0007	mg/L

LDC #: 43719

**EDD POPULATION COMPLETENESS WORKSHEET**

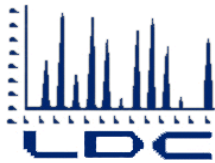
Date: 12/17/18  
 Page: 1 of 1  
 2<sup>nd</sup> Reviewer: FM

The LDC job number listed above was entered by SD  
 Entered from Body or Summary

	EDD Process		Comments/Action
I.	EDD Completeness	-	
Ia.	- All methods present?	y	
Ib.	- All samples present/match report?	y	
Ic.	- All reported analytes present?	y	
Id.	70% or 100% verification of EDD?	y	
II.	EDD Preparation/Entry	-	
IIa.	- Carryover U/J?	N	
IIb.	- Reason Codes used? If so, note which codes.	y	Full Reason
IIc.	- Additional Information (QC Level, Validator, Validated Y/N, etc.)	N	
III.	Reasonableness Checks	-	
IIIa.	- Do all qualified ND results have ND qualifier (e.g. UJ)?	y	
IIIb.	- Do all qualified detect results have detect qualifier (e.g. J)?	y	
IIIc.	- If reason codes are used, do all qualified results have reason code field populated, and vice versa?	y	
IIId.	- Does the detect flag require changing for blank qualifier? If so, are all U results marked ND?	N/NA	
IIIe.	- Do blank concentrations in report match EDD where data was qualified due to blank contamination?	y	
IIIf.	- Were multiple results reported due to dilutions/reanalysis? If so, were results qualified appropriately?	N/NA	
IIIg.	- Are there any discrepancies between the data packet and the EDD?	N	

Notes: \*see discrepancy sheet





## LABORATORY DATA CONSULTANTS, INC.

2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

Tidewater, Inc.  
3761 Attucks Drive  
Powell, OH 43065  
ATTN: Mr. David Conner

December 14, 2018

SUBJECT: NASA JPL, 4Q2018, Data Validation

Dear Mr. Conner,

Enclosed are the final validation reports for the fractions listed below. These SDGs were received on November 21, 2018. Attachment 1 is a summary of the samples that were reviewed for each analysis.

### LDC Project #43751:

<u>SDG #</u>	<u>Fraction</u>
1832779, 1832950 1833239	Volatiles, Chromium, Wet Chemistry

The data validation was performed under Level III & IV guidelines. The analyses were validated using the following documents, as applicable to each method:

- USEPA National Functional Guidelines for Organic Superfund Methods Data Review; January 2017
- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review; January 2017
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007, update V, July 2014

Please feel free to contact us if you have any questions.

Sincerely,

Pei Geng  
Project Manager/Senior Chemist

EDD 90/10 (client select)

### LDC #43751 (Tidewater- Powell, OH / NASA JPL, 4Q2018)

LDC	SDG#	DATE REC'D	(3) DATE DUE	VOA (524.2)		Cr (200.8)		Cl,SO <sub>4</sub> NO <sub>3</sub> -N (300.0)		NO <sub>2</sub> -N (353.2)		O-PO <sub>4</sub> (365.1)		Cr(VI) (7196)		CLO <sub>4</sub> (314.0)																		
				W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	
	Matrix: Water/Soil																																	
A	1832779	11/21/18	12/14/18	11	0	10	0	-	-	-	-	-	-	10	0	10	0																	
A	1832779	11/21/18	12/14/18	2	0	2	0	-	-	-	-	-	-	2	0	2	0																	
B	1832950	11/21/18	12/14/18	11	0	10	0	1	0	1	0	1	0	10	0	10	0																	
B	1832950	11/21/18	12/14/18	1	0	1	0	0	0	0	0	0	0	1	0	1	0																	
C	1833239	11/21/18	12/14/18	11	0	10	0	-	-	-	-	-	-	10	0	10	0																	
C	1833239	11/21/18	12/14/18	1	0	1	0	-	-	-	-	-	-	1	0	1	0																	
Total	T/PG			37	0	34	0	1	0	1	0	1	0	34	0	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	142	

Shaded cells indicate Level IV validation (all other cells are Level III validation). These sample counts do not include MS/MSD, and DUPs

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** NASA JPL, 4Q2018

**LDC Report Date:** December 14, 2018

**Parameters:** Volatiles

**Validation Level:** Level III & IV

**Laboratory:** BC Laboratories, Inc.

**Sample Delivery Group (SDG):** 1832779

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
TB-3-101718	1832779-01	Water	10/17/18
MW-3-5	1832779-02	Water	10/17/18
MW-3-4	1832779-03	Water	10/17/18
DUP-2-4Q18	1832779-04	Water	10/17/18
MW-3-3	1832779-05	Water	10/17/18
MW-3-2	1832779-06	Water	10/17/18
MW-3-1**	1832779-07**	Water	10/17/18
MW-17-5	1832779-08	Water	10/17/18
MW-17-4	1832779-09	Water	10/17/18
MW-17-3	1832779-10	Water	10/17/18
MW-17-2**	1832779-11**	Water	10/17/18
DUP-3-4Q18	1832779-12	Water	10/17/18
EB-3-101718	1832779-13	Water	10/17/18

\*\*Indicates sample underwent Level IV review

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) Method 524.2

All sample results were subjected to Level III data validation, which comprises an evaluation of quality control (QC) summary results. Samples appended with a double asterisk on the cover page were subjected to Level IV evaluation, which is comprised of the QC summary forms as well as the raw data, to confirm sample quantitation and identification.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated due to non-conformances discovered during data validation.
- U (Non-detected): The compound or analyte was analyzed for and positively identified by the laboratory; however the compound or analyte should be considered non-detected at the reported concentration due to the presence of contaminants detected in the associated blank(s).
- UJ (Non-detected estimated): The compound or analyte was reported as not detected by the laboratory; however the reported quantitation/detection limit is estimated due to non-conformances discovered during data validation.
- R (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

## III. Initial Calibration and Initial Calibration Verification

An initial calibration was performed as required by the method.

For compounds where average relative response factors (RRFs) were utilized, the percent relative standard deviations (%RSD) were less than or equal to 20.0%

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination ( $r^2$ ) were greater than or equal to 0.990.

Average relative response factors (RRF) for all compounds were within validation criteria.

The percent differences (%D) of the initial calibration verification (ICV) standard were less than or equal to 30.0% for all compounds with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
10/14/18	Pentachloroethane	36.1	All samples in SDG 1832779	UJ (all non-detects)	P

## IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

The percent differences (%D) were less than or equal to 30.0% for all compounds with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
10/21/18	Bromomethane Hexachloroethane Ethyl tert-butyl ether Methyl iodide Pentachloroethane	58.2 34.8 50.1 36.9 126	All samples in SDG 1832779	UJ (all non-detects)	P

## V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## VI. Field Blanks

Sample TB-3-101718 was identified as a trip blank. No contaminants were found.

Sample EB-3-101718 was identified as an equipment blank. No contaminants were found.

## VII. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## VIII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) analysis were not required by the method.

## IX. Laboratory Control Samples

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## X. Field Duplicates

Samples MW-3-4 and DUP-2-4Q18 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/L)		RPD
	MW-3-4	DUP-2-4Q18	
1,1-Dichloroethane	0.16	0.18	12

## **XI. Internal Standards**

All internal standard areas and retention times were within QC limits.

## **XII. Compound Quantitation**

All compound quantitations met validation criteria for samples which underwent Level IV validation. Raw data were not reviewed for Level III validation.

## **XIII. Target Compound Identifications**

All target compound identifications met validation criteria for samples which underwent Level IV validation. Raw data were not reviewed for Level III validation.

## **XIV. System Performance**

The system performance was acceptable for samples which underwent Level IV validation. Raw data were not reviewed for Level III validation.

## **XV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to ICV and continuing calibration %D, data were qualified as estimated in thirteen samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the data validation all other results are considered valid and usable for all purposes.

**NASA JPL, 4Q2018**  
**Volatiles - Data Qualification Summary - SDG 1832779**

Sample	Compound	Flag	A or P	Reason
TB-3-101718 MW-3-5 MW-3-4 DUP-2-4Q18 MW-3-3 MW-3-2 MW-3-1** MW-17-5 MW-17-4 MW-17-3 MW-17-2** DUP-3-4Q18 EB-3-101718	Pentachloroethane	UJ (all non-detects)	P	Initial calibration verification (%D)
TB-3-101718 MW-3-5 MW-3-4 DUP-2-4Q18 MW-3-3 MW-3-2 MW-3-1** MW-17-5 MW-17-4 MW-17-3 MW-17-2** DUP-3-4Q18 EB-3-101718	Bromomethane Hexachloroethane Ethyl tert-butyl ether Methyl iodide Pentachloroethane	UJ (all non-detects)	P	Continuing calibration (%D)

**NASA JPL, 4Q2018**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 1832779**

No Sample Data Qualified in this SDG



LDC #: 43751A1

**VALIDATION COMPLETENESS WORKSHEET**

Date: 12/10/18

SDG #: 1832779

Level III/IV

Page: 1 of 1

Laboratory: BC Laboratories, Inc.

Reviewer: [Signature]

2nd Reviewer: [Signature]

**METHOD:** GC/MS Volatiles (EPA Method 524.2)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A	
II.	GC/MS Instrument performance check	A	
III.	Initial calibration/ICV	A, MW	RSD = 20% x <sup>2</sup> ICV = 30%
IV.	Continuing calibration	MW	ICV = 30%
V.	Laboratory Blanks	A	
VI.	Field blanks	ND	TB = 1. EB = 13
VII.	Surrogate spikes	A	
VIII.	Matrix spike/Matrix spike duplicates	N	
IX.	Laboratory control samples	A	LCS
X.	Field duplicates	MW	D = 3 + 4. 11 + 12
XI.	Internal standards	A	
XII.	Compound quantitation RL/LOQ/LODs	A	Not reviewed for Level III validation
XIII.	Target compound identification	A	Not reviewed for Level III validation
XIV.	System performance	A	Not reviewed for Level III validation
XV.	Overall assessment of data	A	

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB = Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

\*\* Indicates sample underwent Level IV validation

	Client ID	Lab ID	Matrix	Date
1	TB-3-101718	1832779-01	Water	10/17/18
2	MW-3-5	1832779-02	Water	10/17/18
3	MW-3-4	1832779-03	Water	10/17/18
4	DUP-2-4Q18	1832779-04	Water	10/17/18
5	MW-3-3	1832779-05	Water	10/17/18
6	MW-3-2	1832779-06	Water	10/17/18
7	MW-3-1**	1832779-07**	Water	10/17/18
8	MW-17-5	1832779-08	Water	10/17/18
9	MW-17-4	1832779-09	Water	10/17/18
10	MW-17-3	1832779-10	Water	10/17/18
11	MW-17-2**	1832779-11**	Water	10/17/18
12	DUP-3-4Q18	1832779-12	Water	10/17/18
13	EB-3-101718	1832779-13	Water	10/17/18

VALIDATION FINDINGS CHECKLIST

Method: Volatiles (EPA Method 524.2)

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
Were all technical holding times met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was cooler temperature criteria met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II: GC/MS Instrument performance check</b>				
Was a tune check performed prior to establishing and/or re-establishing an initial calibration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the BFB performance results reviewed and found to be within the specified criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>III: Initial calibration</b>				
Did the laboratory perform at least 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) < 20%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IIIa: Initial Calibration Verification calibration</b>				
Was an initial calibration verification standard analyzed after each initial calibration for each instrument?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) < 30%?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>IV: Continuing calibration</b>				
Was a continuing calibration standard analyzed at the beginning of each analysis batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) of continuing calibration < 30%?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>V: Laboratory Blanks</b>				
Was a laboratory blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a laboratory blank analyzed with each analysis batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the laboratory blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VI: Field blanks</b>				
Field blanks were identified in this SDG.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field blanks.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VII: Surrogate spikes</b>				
Were all surrogate %R within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VIII: Matrix spike/Matrix spike duplicates</b>				
Was a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for this SDG?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>IX: Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

LDC #: 43751A1

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2  
 Reviewer: [Signature]  
 2nd Reviewer: JMG

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per analytical batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) within 70-130%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>X. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field duplicates.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XI. Internal standards</b>				
Were internal standard area counts within +/-30% of the area of the most recent continuing calibration standard and +/-50% of the average peak area in the initial calibration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were retention times within +/-30 seconds of the associated calibration standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XII. Compound quantitation/CRQLs</b>				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) or regression equations used to quantitate the compound?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIII. Target compound identification</b>				
Were relative retention times (RRT's) within + 0.06 RRT units of the standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were chromatogram peaks verified and accounted for?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIV. System performance</b>				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XV. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

## TARGET COMPOUND WORKSHEET

### METHOD: VOA

A. Chloromethane	AA. Tetrachloroethene	AAA. 1,3,5-Trimethylbenzene	AAAA. Ethyl tert-butyl ether	A1. 1,3-Butadiene
B. Bromomethane	BB. 1,1,2,2-Tetrachloroethane	BBB. 4-Chlorotoluene	BBBB. tert-Amyl methyl ether	B1. Hexane
C. Vinyl chloride	CC. Toluene	CCC. tert-Butylbenzene	CCCC. 1-Chlorohexane	C1. Heptane
D. Chloroethane	DD. Chlorobenzene	DDD. 1,2,4-Trimethylbenzene	DDDD. Isopropyl alcohol	D1. Propylene
E. Methylene chloride	EE. Ethylbenzene	EEE. sec-Butylbenzene	EEEE. Acetonitrile	E1. Freon 11
F. Acetone	FF. Styrene	FFF. 1,3-Dichlorobenzene	FFFF. Acrolein	F1. Freon 12
G. Carbon disulfide	GG. Xylenes, total	GGG. p-Isopropyltoluene	GGGG. Acrylonitrile	G1. Freon 113
H. 1,1-Dichloroethene	HH. Vinyl acetate	HHH. 1,4-Dichlorobenzene	HHHH. 1,4-Dioxane	H1. Freon 114
I. 1,1-Dichloroethane	II. 2-Chloroethylvinyl ether	III. n-Butylbenzene	IIII. Isobutyl alcohol	I1. 2-Nitropropane
J. 1,2-Dichloroethene, total	JJ. Dichlorodifluoromethane	JJJ. 1,2-Dichlorobenzene	JJJJ. Methacrylonitrile	J1. Dimethyl disulfide
K. Chloroform	KK. Trichlorofluoromethane	KKK. 1,2,4-Trichlorobenzene	KKKK. Propionitrile	K1. 2,3-Dimethyl pentane
L. 1,2-Dichloroethane	LL. Methyl-tert-butyl ether	LLL. Hexachlorobutadiene	LLLL. Ethyl ether	L1. 2,4-Dimethyl pentane
M. 2-Butanone	MM. 1,2-Dibromo-3-chloropropane	MMM. Naphthalene	MMMM. Benzyl chloride	M1. 3,3-Dimethyl pentane
N. 1,1,1-Trichloroethane	NN. Methyl ethyl ketone	NNN. 1,2,3-Trichlorobenzene	NNNN. Iodomethane	N1. 2-Methylpentane
O. Carbon tetrachloride	OO. 2,2-Dichloropropane	OOO. 1,3,5-Trichlorobenzene	OOOO. 1,1-Difluoroethane	O1. 3-Methylpentane
P. Bromodichloromethane	PP. Bromochloromethane	PPP. trans-1,2-Dichloroethene	PPPP. Tetrahydrofuran	P1. 3-Ethylpentane
Q. 1,2-Dichloropropane	QQ. 1,1-Dichloropropene	QQQ. cis-1,2-Dichloroethene	QQQQ. Methyl acetate	Q1. 2,2-Dimethylpentane
R. cis-1,3-Dichloropropene	RR. Dibromomethane	RRR. m,p-Xylenes	RRRR. Ethyl acetate	R1. 2,2,3-Trimethylbutane
S. Trichloroethene	SS. 1,3-Dichloropropane	SSS. o-Xylene	SSSS. Cyclohexane	S1. 2,2,4-Trimethylpentane
T. Dibromochloromethane	TT. 1,2-Dibromoethane	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	TTTT. Methylcyclohexane	T1. 2-Methylhexane
U. 1,1,2-Trichloroethane	UU. 1,1,1,2-Tetrachloroethane	UUU. 1,2-Dichlorotetrafluoroethane	UUUU. Allyl chloride	U1. Nonanal
V. Benzene	VV. Isopropylbenzene	VVV. 4-Ethyltoluene	VVVV. Methyl methacrylate	V1. 2-Methylnaphthalene
W. trans-1,3-Dichloropropene	WW. Bromobenzene	WWW. Ethanol	WWWWW. Ethyl methacrylate	W1. Methanol
X. Bromoform	XX. 1,2,3-Trichloropropane	XXX. Di-isopropyl ether	XXXX. cis-1,4-Dichloro-2-butene	X1. 1,2,3-Trimethylbenzene
Y. 4-Methyl-2-pentanone	YY. n-Propylbenzene	YYY. tert-Butanol	YYYY. trans-1,4-Dichloro-2-butene	Y1. Hexachloroethane
Z. 2-Hexanone	ZZ. 2-Chlorotoluene	ZZZ. tert-Butyl alcohol	ZZZZ. Pentachloroethane	Z1. Methyl iodide

LDC # 13754

### VALIDATION FINDINGS WORKSHEET Initial Calibration Verification

Page: 1 of 1  
Reviewer: [Signature]  
2nd Reviewer: [Signature]

METHOD: GC/MS VOA (EPA Method 524.2)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

N N/A Was an initial calibration verification standard analyzed after each ICAL for each instrument?

Y N/A Were all %D within the validation criteria of  $\leq 30\%$  %D?

#	Date	Standard ID	Compound	Finding %D (Limit: $\leq 30.0\%$ )	Associated Samples	Qualifications
	<u>10/4/18</u>	<u>140CTST</u>	<u>2222</u>	<u>36.1</u>	<u>All (N/D)</u>	<u>N/A</u>

VALIDATION FINDINGS WORKSHEET  
Continuing Calibration

METHOD: GC/MS VOA (EPA Method 524.2)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

- Y  N  N/A Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?  
 Y  N  N/A Were all percent differences (%D) ≤ 30%?

#	Date	Standard ID	Compound	Finding %D (Limit: <30.0%)	Associated Samples	Qualifications
	<del>10/14/18</del>	<del>14OCT2T</del>	<del>2222</del>	<del>36.1</del>		<del>Y/N/A</del>
	10/15/18	21OCT02	YI	36.0	MB	Y/N/A
			BBBB	34.8		↓
			YYYY	50.1		
			AAAA	36.9		
			2222	126		↓
	12/21/18	21OCT32	B	58.2	All (N/A)	Y/N/A
			YI	38.2		↓
			AAAA	32.6		
			ZI	69.5		
			2222	84.7		↓

LDC# 43751A

**VALIDATION FINDINGS WORKSHEET**  
Field Duplicates

Page: 1 of 1  
Reviewer: [Signature]  
2nd Reviewer: [Signature]

**METHOD:** GCMS VOA (EPA Method 524.2)

Compound	Concentration (ug/L)		RPD
	3	4	
I	0.16	0.18	12

V:\FIELD DUPLICATES\Field Duplicates\FD\_Organics\2018\43751A1\_JPL.wpd

### VALIDATION FINDINGS WORKSHEET Initial Calibration Calculation Verification

**METHOD:** GC/MS VOA (EPA Method 524.2)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$$RRF = (A_x)(C_{is}) / (A_{is})(C_x)$$

average RRF = sum of the RRFs/number of standards

$$\%RSD = 100 * (S/X)$$

A<sub>x</sub> = Area of compound,

C<sub>x</sub> = Concentration of compound,

S = Standard deviation of the RRFs

X = Mean of the RRFs

A<sub>is</sub> = Area of associated internal standard

C<sub>is</sub> = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported	Recalculated	Reported	Recalculated	Reported	Recalculated
				RRF (10 std)	RRF (10 std)	Average RRF (initial)	Average RRF (initial)	%RSD	%RSD
1	ICAL (MS-V5)	10/14/18	QQQ (1st internal standard)	0.4696443	0.4696443	0.4811585	0.4811585	5.238942	5.239
			S (2nd internal standard)	0.3525042	0.3525042	0.3602418	0.3602418	9.716208	9.716
			EE (3rd internal standard)	1.842402	1.842402	1.83367	1.83367	11.99516	11.995
			(4th internal standard)						
2			QQQ (1st internal standard)						
			S (2nd internal standard)						
			AA (3rd internal standard)						
			HHH (4th internal standard)						
3			QQQ (1st internal standard)						
			S (2nd internal standard)						
			AA (3rd internal standard)						
			HHH (4th internal standard)						
4			QQQ (1st internal standard)						
			S (2nd internal standard)						
			AA (3rd internal standard)						
			HHH (4th internal standard)						

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.



## VALIDATION FINDINGS WORKSHEET

### Continuing Calibration Results Verification

**METHOD:** GC/MS VOA (EPA Method 524.2)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

$$\% \text{ Difference} = 100 * (\text{ave. RRF} - \text{RRF}) / \text{ave. RRF}$$

$$\text{RRF} = (A_x)(C_{is}) / (A_{is})(C_x)$$

Where: ave. RRF = initial calibration average RRF

RRF = continuing calibration RRF

 $A_x$  = Area of compound, $A_{is}$  = Area of associated internal standard $C_x$  = Concentration of compound, $C_{is}$  = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference internal Standard)	Average RRF (initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	21OCT02	10/21/18	QQQ (1st internal standard)	0.4811585	0.4988816	0.4988816	3.7	3.7
			S (2nd internal standard)	0.3602418	0.3439057	0.3439057	4.5	4.5
			EE (3rd internal standard)	1.83367	1.722582	1.722582	6.1	6.1
			HHH (4th internal standard)					
2	21OCT32	10/21/18	QQQ (1st internal standard)	0.4811585	0.4897163	0.4897163	1.8	1.8
			S (2nd internal standard)	0.3602418	0.3332649	0.3332649	7.5	7.5
			EE (3rd internal standard)	1.83367	1.754798	1.754798	4.3	4.3
			HHH (4th internal standard)					
3			QQQ (1st internal standard)					
			S (2nd internal standard)					
			AA (3rd internal standard)					
			HHH (4th internal standard)					
4			QQQ (1st internal standard)					
			S (2nd internal standard)					
			AA (3rd internal standard)					
			HHH (4th internal standard)					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 13751A1

## VALIDATION FINDINGS WORKSHEET Surrogate Results Verification

Page: 1 of 1  
Reviewer: Q  
2nd reviewer: DV

**METHOD:** GC/MS VOA (EPA Method 524.2)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS \* 100

Where: SF = Surrogate Found  
SS = Surrogate Spiked

Sample ID: 7

	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
			Reported	Recalculated	
Toluene-d8	10.0	10.26	103	103	
Bromofluorobenzene	↓	9.86	98.6	98.6	
1,2-Dichlorobenzene-d4 <u>DCE</u>	↓	93.9	93.9	93.9	
Dibromofluoromethane					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
			Reported	Recalculated	
Toluene-d8					
Bromofluorobenzene					
1,2-Dichlorobenzene-d4					
Dibromofluoromethane					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
			Reported	Recalculated	
Toluene-d8					
Bromofluorobenzene					
1,2-Dichlorobenzene-d4					
Dibromofluoromethane					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
			Reported	Recalculated	
Toluene-d8					
Bromofluorobenzene					
1,2-Dichlorobenzene-d4					
Dibromofluoromethane					

**VALIDATION FINDINGS WORKSHEET**  
**Laboratory Control Sample Results Verification**

**METHOD:** GC/MS VOA (EPA Method 524.2)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate (if applicable) were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 \* SSC/SA

Where: SSC = Spiked sample concentration  
 SA = Spike added

RPD = | LCSC - LCSDC | \* 2 / (LCSC + LCSDC)

LCSC = Laboratory control sample concentration    LCSDC = Laboratory control sample duplicate concentration

LCS ID: B027891-BS1

Compound	Spike Added		Spiked Sample Concentration		LCS		LCSD		LCS/LCSD	
	LCS	LCSD	LCS	LCSD	Percent Recovery		Percent Recovery		RPD	
					Reported	Recalc.	Reported	Recalc.	Reported	Recalculated
1,1-Dichloroethene	25.000	NA	26.160	NA	105	105				
Trichloroethene	↓	↓	24.020		96.1	96.1				
Benzene	↓	↓	25.320	↓	101	101				
Toluene	↓	↓	24.430	↓	97.7	97.7				
Chlorobenzene	↓	↓	23.420	↓	93.7	93.7				

Comments: Refer to Laboratory Control Sample findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

**VALIDATION FINDINGS WORKSHEET**  
Sample Calculation Verification

**METHOD:** GC/MS VOA (EPA Method 524.2)

Y N N/A Were all reported results recalculated and verified for all level IV samples?  
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration =  $\frac{(A_x)(I_s)(DF)}{(A_s)(RRF)(V_o)(\%S)}$

- $A_x$  = Area of the characteristic ion (EICP) for the compound to be measured
- $A_s$  = Area of the characteristic ion (EICP) for the specific internal standard
- $I_s$  = Amount of internal standard added in nanograms (ng)
- RRF = Relative response factor of the calibration standard.
- $V_o$  = Volume or weight of sample pruged in milliliters (ml) or grams (g).
- Df = Dilution factor.
- %S = Percent solids, applicable to soils and solid matrices only.

Example:

Sample I.D. 7.11 ND  
B021891-BSI. S

Conc. =  $\frac{(26156)(10.0)(1)}{(34289)(0.2624)(8)}$   
 = 24.02 µg/L

#	Sample ID	Compound	Reported Concentration	Calculated Concentration	Qualification
	<u>LC9</u>	<u>S</u>	<u>24.02</u>	( )	

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** NASA JPL, 4Q2018

**LDC Report Date:** December 11, 2018

**Parameters:** Chromium

**Validation Level:** Level III & IV

**Laboratory:** BC Laboratories, Inc.

**Sample Delivery Group (SDG):** 1832779

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-3-5	1832779-02	Water	10/17/18
MW-3-4	1832779-03	Water	10/17/18
DUP-2-4Q18	1832779-04	Water	10/17/18
MW-3-3	1832779-05	Water	10/17/18
MW-3-2	1832779-06	Water	10/17/18
MW-3-1**	1832779-07**	Water	10/17/18
MW-17-5	1832779-08	Water	10/17/18
MW-17-4	1832779-09	Water	10/17/18
MW-17-3	1832779-10	Water	10/17/18
MW-17-2**	1832779-11**	Water	10/17/18
DUP-3-4Q18	1832779-12	Water	10/17/18
EB-3-101718	1832779-13	Water	10/17/18
MW-3-5MS	1832779-02MS	Water	10/17/18
MW-3-5MSD	1832779-02MSD	Water	10/17/18
MW-3-5DUP	1832779-02DUP	Water	10/17/18
DUP-3-4Q18MS	1832779-12MS	Water	10/17/18
DUP-3-4Q18MSD	1832779-12MSD	Water	10/17/18
DUP-3-4Q18DUP	1832779-12DUP	Water	10/17/18

\*\*Indicates sample underwent Level IV validation

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with a modified outline of the USEPA National Functional Guidelines (NFG) for Inorganic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Chromium by Environmental Protection Agency (EPA) Method 200.8

All sample results were subjected to Level III data validation, which comprises an evaluation of quality control (QC) summary results. Samples appended with a double asterisk on the cover page were subjected to Level IV data validation, which is comprised of the QC summary forms as well as the raw data, to confirm sample quantitation and identification.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated due to non-conformances discovered during data validation.
- U (Non-detected): The compound or analyte was analyzed for and positively identified by the laboratory; however the compound or analyte should be considered non-detected at the reported concentration due to the presence of contaminants detected in the associated blank(s).
- UJ (Non-detected estimated): The compound or analyte was reported as not detected by the laboratory; however the reported quantitation/detection limit is estimated due to non-conformances discovered during data validation.
- R (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## I. Sample Receipt and Technical Holding Times

All samples were received in good condition.

All technical holding time requirements were met.

## II. ICPMS Tune

The mass calibration was within 0.1 AMU and the percent relative standard deviation (%RSD) was less than or equal to 5%.

## III. Instrument Calibration

Initial and continuing calibrations were performed as required by the method.

The initial calibration verification (ICV) and continuing calibration verification (CCV) standards were within QC limits.

## IV. ICP Interference Check Sample Analysis

ICP interference check sample analysis data were not required by the method.

## V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks with the following exceptions:

Blank ID	Analyte	Maximum Concentration	Associated Samples
PB (prep blank)	Chromium	0.57700 ug/L	MW-3-5 MW-3-4 DUP-2-4Q18 MW-3-3 MW-3-2 MW-3-1** MW-17-5 MW-17-4 MW-17-3 MW-17-2**
ICB/CCB	Chromium	0.53600 ug/L	DUP-3-4Q18 EB-3-101718

Data qualification by the laboratory blanks was based on the maximum contaminant concentration in the laboratory blanks in the analysis of each analyte. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated laboratory blanks with the following exceptions:

Sample	Analyte	Reported Concentration	Modified Final Concentration
MW-3-5	Chromium	1.7 ug/L	1.7U ug/L
MW-3-2	Chromium	2.0 ug/L	2.0U ug/L
MW-3-1**	Chromium	1.2 ug/L	1.2U ug/L
MW-17-3	Chromium	1.0 ug/L	1.0U ug/L
MW-17-2**	Chromium	1.7 ug/L	1.7U ug/L
EB-3-101718	Chromium	1.7 ug/L	1.7U ug/L

## VI. Field Blanks

Sample EB-3-101718 was identified as an equipment blank. No contaminants were found with the following exceptions:

Blank ID	Analyte	Concentration (ug/L)
EB-3-101718	Chromium	1.7

## VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## VIII. Duplicate Sample Analysis

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## IX. Serial Dilution

Serial dilution analysis was performed on an associated project sample. Percent differences (%D) were within QC limits.

## X. Laboratory Control Samples

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.



## XI. Field Duplicates

Samples MW-3-4 and DUP-2-4Q18 and samples MW-17-2\*\* and DUP-3-4Q18 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Analyte	Concentration (ug/L)		RPD
	MW-3-4	DUP-2-4Q18	
Chromium	19	27	35

Analyte	Concentration (ug/L)		RPD
	MW-17-2**	DUP-3-4Q18	
Chromium	1.7	0.50U	200

## XII. Internal Standards (ICP-MS)

All internal standard percent recoveries (%R) were within QC limits for samples which underwent Level IV validation. Raw data were not reviewed for Level III validation.

## XIII. Sample Result Verification

All sample result verifications were acceptable for samples which underwent Level IV validation. Raw data were not reviewed for Level III validation.

## XIV. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to laboratory blank contamination, data were qualified as not detected in six samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Based upon the data validation all other results are considered valid and usable for all purposes.

**NASA JPL, 4Q2018**  
**Chromium - Data Qualification Summary - SDG 1832779**

No Sample Data Qualified in this SDG

**NASA JPL, 4Q2018**  
**Chromium - Laboratory Blank Data Qualification Summary - SDG 1832779**

Sample	Analyte	Modified Final Concentration	A or P
MW-3-5	Chromium	1.7U ug/L	A
MW-3-2	Chromium	2.0U ug/L	A
MW-3-1**	Chromium	1.2U ug/L	A
MW-17-3	Chromium	1.0U ug/L	A
MW-17-2**	Chromium	1.7U ug/L	A
EB-3-101718	Chromium	1.7U ug/L	A

**METHOD:** Chromium (EPA Method 200.8)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A	
II.	ICP/MS Tune	A	
III.	Instrument Calibration	A	
IV.	ICP Interference Check Sample (ICS) Analysis	N	not required
V.	Laboratory Blanks	SW	9MB
VI.	Field Blanks	SW	EB=3 EB=12
VII.	Matrix Spike/Matrix Spike Duplicates	A	MS/MSD
VIII.	Duplicate sample analysis	A	DUP
IX.	Serial Dilution	A	SD: 1
X.	Laboratory control samples	A	LCS
XI.	Field Duplicates	SW	D=2+3, D=10+11
XII.	Internal Standard (ICP-MS)	A	not reviewed for Level III
XIII.	Sample Result Verification	A	Not reviewed for Level III validation
XIV.	Overall Assessment of Data	A	

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

\*\* Indicates sample underwent Level IV validation

	Client ID	Lab ID	Matrix	Date
1	MW-3-5	1832779-02	Water	10/17/18
2	MW-3-4	1832779-03	Water	10/17/18
3	DUP-2-4Q18	1832779-04	Water	10/17/18
4	MW-3-3	1832779-05	Water	10/17/18
5	MW-3-2	1832779-06	Water	10/17/18
6	MW-3-1**	1832779-07**	Water	10/17/18
7	MW-17-5	1832779-08	Water	10/17/18
8	MW-17-4	1832779-09	Water	10/17/18
9	MW-17-3	1832779-10	Water	10/17/18
10	MW-17-2**	1832779-11**	Water	10/17/18
11	DUP-3-4Q18	1832779-12	Water	10/17/18
12	EB-3-101718	1832779-13	Water	10/17/18
13	MW-3-5MS	1832779-02MS	Water	10/17/18
14	MW-3-5MSD	1832779-02MSD	Water	10/17/18
15	MW-3-5DUP	1832779-02DUP	Water	10/17/18

LDC #: 43751A4a

### VALIDATION COMPLETENESS WORKSHEET

Date: 12-5-18

SDG #: 1832779

Level III/IV

Page: 2 of 2

Laboratory: BC Laboratories, Inc.

Reviewer: MG

2nd Reviewer: [Signature]

**METHOD:** Chromium (EPA Method 200.8)

	Client ID	Lab ID	Matrix	Date
16	DUP-3-4Q18MS	1832779-12MS	Water	10/17/18
17	DUP-3-4Q18MSD	1832779-12MSD	Water	10/17/18
18	DUP-3-4Q18DUP	1832779-12DUP	Water	10/17/18
19				
20				
21				
22	PBW1			
23	PBW2			

Notes:

**Method:Metals (EPA SW 846 Method 6010/7000/6020)**

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
<b>II. ICP/MS Tune</b>				
Were all isotopes in the tuning solution mass resolution within 0.1 amu?	✓			
Were %RSD of isotopes in the tuning solution $\leq 5\%$ ?	✓			
<b>III. Calibration</b>				
Were all instruments calibrated daily, each set-up time?	✓			
Were the proper number of standards used?	✓			
Were all initial and continuing calibration verification %Rs within the 90-110% (80-120% for mercury) QC limits?	✓			
Were all initial calibration correlation coefficients $> 0.995$ ?	✓			
<b>IV. Blanks</b>				
Was a method blank associated with every sample in this SDG?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	✓			
<b>V. ICP Interference Check Sample</b>				
Were ICP interference check samples performed daily?		✓		
Were the AB solution percent recoveries (%R) with the 80-120% QC limits?			✓	
<b>VI. Matrix spike/Matrix spike duplicates</b>				
Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.	✓			
Were the MS/MSD or duplicate relative percent differences (RPD) $\leq 20\%$ for waters and $\leq 35\%$ for soil samples? A control limit of $\pm RL$ ( $\pm 2X RL$ for soil) was used for samples that were $\leq 5X$ the RL, including when only one of the duplicate sample values were $< 5X$ the RL.	✓			
<b>VII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% QC limits for water samples and laboratory established QC limits for soils?	✓			

Validation Area	Yes	No	NA	Findings/Comments
<b>VIII. Internal Standards (EPA SW 846 Method 6020/EPA 200.8)</b>				
Were all the percent recoveries (%R) within the 30-120% (6020)/60-125% (200.8) of the intensity of the internal standard in the associated initial calibration?	✓			
If the %Rs were outside the criteria, was a reanalysis performed?			✓	
<b>IX. ICP Serial Dilution</b>				
Was an ICP serial dilution analyzed if analyte concentrations were > 50X the MDL (ICP)/>100X the MDL (ICP/MS)?	✓			
Were all percent differences (%Ds) < 10%?	✓			
Was there evidence of negative interference? If yes, professional judgement will be used to qualify the data.		✓		
<b>X. Sample Result Verification</b>				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
<b>XI. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	✓			
<b>XII. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	✓			
Target analytes were detected in the field duplicates.	✓			
<b>XIII. Field blanks</b>				
Field blanks were identified in this SDG.	✓			
Target analytes were detected in the field blanks.	✓			

LDC #: 43751A4a

SDG #: See Cover

METHOD: Trace metals (EPA SW 864 Method 200.8)

Sample Concentration units, unless otherwise noted: ug/L

VALIDATION FINDINGS WORKSHEET

PB/ICB/CCB QUALIFIED SAMPLES

Soil preparation factor applied: NA

Associated Samples: 1-10

Reviewer: MG

2nd Reviewer:

Analyte	Maximum PB <sup>a</sup> (mg/Kg)	Maximum PB <sup>a</sup> (ug/L)	Maximum ICB/CCB <sup>a</sup> (ug/L)	Action Limit	1	5	6	9	10					
Cr		0.57700		2.885	1.7	2.0	1.2	1.0	1.7					

Sample Concentration units, unless otherwise noted: ug/L

Associated Samples: 11,12

Analyte	Maximum PB <sup>a</sup> (mg/Kg)	Maximum PB <sup>a</sup> (ug/L)	Maximum ICB/CCB <sup>a</sup> (ug/L)	Action Limit	12									
Cr			0.53600	2.680	1.7									

Samples with analyte concentrations within five times the associated ICB, CCB or PB concentration are listed above with the identifications from the Validation Completeness Worksheet. These sample results were qualified as not detected, "U".

Note : a - The listed analyte concentration is the highest ICB, CCB, or PB detected in the analysis of each element.

LDC #: 43751A4a

### VALIDATION FINDINGS WORKSHEET Field Blanks

Page: 1 of 1  
Reviewer: MG  
2nd reviewer: R

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

N N/A  
 Y N/A

Were field blanks identified in this SDG?

Were target analytes detected in the field blanks?

Sample: 12 Field Blank / Trip Blank / Rinsate / Other EB (circle one)

Analyte	Concentration Units ( )
<u>Cr</u>	<u>1.7 (µg/L)</u>

Sample: \_\_\_\_\_ Field Blank / Trip Blank / Rinsate / Other \_\_\_\_\_ (circle one)

Analyte	Concentration Units ( )



LDC#: 43751A4a

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

Page: 1 of 1  
Reviewer: MG  
2nd Reviewer: [Signature]

**METHOD:** Metals (EPA Method 200.8)

Analyte	Concentration (ug/L)		RPD	
	2	3		
Chromium	19	27	35	

V:\FIELD DUPLICATES\Field Duplicates\FD\_inorganic\2018\43751A4a.WPD

Analyte	Concentration (ug/L)		RPD	
	10	11		
Chromium	1.7	0.50U	200	

V:\FIELD DUPLICATES\Field Duplicates\FD\_inorganic\2018\43751A4a.WPD

LDC #: 43751A4a

**VALIDATION FINDINGS WORKSHEET**  
**Initial and Continuing Calibration Calculation Verification**

Page: 1 of 1  
 Reviewer: MG  
 2nd Reviewer: [Signature]

**METHOD:** Trace metals (EPA SW 846 Method 6010/6020/7000)

An initial and continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

$$\%R = \frac{\text{Found}}{\text{True}} \times 100$$

Where, Found = concentration (in ug/L) of each analyte measured in the analysis of the ICV or CCV solution  
 True = concentration (in ug/L) of each analyte in the ICV or CCV source

Standard ID	Type of Analysis	Element	Found (ug/L)	True (ug/L)	Recalculated	Reported	Acceptable (Y/N)
					%R	%R	
	ICP (Low Level calibration)						
	ICP/MS (Low Level calibration)						
	ICP (Initial calibration)						
<u>0818</u> <u>ICV</u>	ICP/MS (Initial calibration)	<u>Cr</u>	<u>51.599</u>	<u>50.000</u>	<u>103</u>	<u>103</u>	<u>Y</u>
	CVAA (Initial calibration)						↓
	ICP (Continuing calibration)						
<u>0308</u> <u>CCVT</u>	ICP/MS (Continuing calibration)	<u>Cr</u>	<u>40.008</u>	<u>40.000</u>	<u>100</u>	<u>100</u>	
	CVAA (Continuing calibration)						

ICP-MS TUNE	Calculation	Mass	Actual (Mean Counts / Axis)	Required (Counts / Axis)	Recalculated %RSD	Acceptable (Y/N)
<u>tune</u>	Mass Axis	<u>58.933</u>	<u>58.975</u>	<u>± 0.1 AMU</u>	<u>NA</u>	<u>Y</u>
<u>↓</u>	%RSD	<u>102.9</u>	<u>0.1</u>	<u>≤ 5% RSD</u>	<u>0.1</u>	<u>↓</u>

Comments:

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LDC #: 43751A4a

### VALIDATION FINDINGS WORKSHEET Sample Calculation Verification

Page: 1 of 1  
Reviewer: MG  
2nd reviewer: [Signature]

**METHOD:** Trace Metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

- N N/A Have results been reported and calculated correctly?
- N N/A Are results within the calibrated range of the instruments and within the linear range of the ICP?
- N N/A Are all detection limits below the CRDL?

Detected analyte results for #6, Cr were recalculated and verified using the following equation:

Concentration =  $\frac{(RD)(FV)(Dil)}{(In. Vol.)}$

Recalculation:

- RD = Raw data concentration
- FV = Final volume (ml)
- In. Vol. = Initial volume (ml) or weight (G)
- Dil = Dilution factor

$$\frac{(1.158 \mu\text{g/L})(0.050 \text{ L})}{0.050 \text{ L}} = 1.158 \mu\text{g/L}$$

#	Sample ID	Analyte	Reported Concentration (μg/L)	Calculated Concentration (μg/L)	Acceptable (Y/N)
1	6	Cr	1.2	1.2	Y
2	10	Cr	1.7	1.7	↓

Note: \_\_\_\_\_

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** NASA JPL, 4Q2018

**LDC Report Date:** December 11, 2018

**Parameters:** Wet Chemistry

**Validation Level:** Level III & IV

**Laboratory:** BC Laboratories, Inc.

**Sample Delivery Group (SDG):** 1832779

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-3-5	1832779-02	Water	10/17/18
MW-3-4	1832779-03	Water	10/17/18
DUP-2-4Q18	1832779-04	Water	10/17/18
MW-3-3	1832779-05	Water	10/17/18
MW-3-2	1832779-06	Water	10/17/18
MW-3-1**	1832779-07**	Water	10/17/18
MW-17-5	1832779-08	Water	10/17/18
MW-17-4	1832779-09	Water	10/17/18
MW-17-3	1832779-10	Water	10/17/18
MW-17-2**	1832779-11**	Water	10/17/18
DUP-3-4Q18	1832779-12	Water	10/17/18
EB-3-101718	1832779-13	Water	10/17/18
MW-3-5MS	1832779-02MS	Water	10/17/18
MW-3-5MSD	1832779-02MSD	Water	10/17/18
MW-3-5DUP	1832779-02DUP	Water	10/17/18
MW-17-2MS	1832779-11MS	Water	10/17/18
MW-17-2MSD	1832779-11MSD	Water	10/17/18
MW-17-2DUP	1832779-11DUP	Water	10/17/18

\*\*Indicates sample underwent Level IV validation

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with a modified outline of the USEPA National Functional Guidelines (NFG) for Inorganic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following methods:

Hexavalent Chromium by Environmental Protection Agency (EPA) SW 846 Method 7196

Perchlorate by EPA Method 314.0

All sample results were subjected to Level III data validation, which comprises an evaluation of quality control (QC) summary results. Samples appended with a double asterisk on the cover page were subjected to Level IV data validation, which is comprised of the QC summary forms as well as the raw data, to confirm sample quantitation and identification.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated due to non-conformances discovered during data validation.
- U (Non-detected): The compound or analyte was analyzed for and positively identified by the laboratory; however the compound or analyte should be considered non-detected at the reported concentration due to the presence of contaminants detected in the associated blank(s).
- UJ (Non-detected estimated): The compound or analyte was reported as not detected by the laboratory; however the reported quantitation/detection limit is estimated due to non-conformances discovered during data validation.
- R (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition.

All technical holding time requirements were met.

## **II. Initial Calibration**

All criteria for the initial calibration of each method were met.

## **III. Continuing Calibration**

Continuing calibration frequency and analysis criteria were met for each method when applicable.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the methods. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

Sample EB-3-101718 was identified as an equipment blank. No contaminants were found.

## **VI. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **VII. Duplicate Sample Analysis**

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the methods. Percent recoveries (%R) were within QC limits.

## IX. Field Duplicates

Samples MW-3-4 and DUP-2-4Q18 and samples MW-17-2\*\* and DUP-3-4Q18 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Analyte	Concentration (ug/L)		RPD
	MW-3-4	DUP-2-4Q18	
Perchlorate	1.1	1.0	10

## X. Sample Result Verification

All sample result verifications were acceptable for samples which underwent Level IV validation. Raw data were not reviewed for Level III validation.

## XI. Overall Assessment of Data

The analysis was conducted within all specifications of the methods. No results were rejected in this SDG.

The quality control criteria reviewed were met and are considered acceptable. Based upon the data validation all results are considered valid and usable for all purposes.



**NASA JPL, 4Q2018**  
**Wet Chemistry - Data Qualification Summary - SDG 1832779**

No Sample Data Qualified in this SDG

**NASA JPL, 4Q2018**  
**Wet Chemistry - Laboratory Blank Data Qualification Summary - SDG 1832779**

No Sample Data Qualified in this SDG

LDC #: 43751A6

**VALIDATION COMPLETENESS WORKSHEET**

Date: 12-5-18

SDG #: 1832779

Level III/IV

Page: 1 of 2

Laboratory: BC Laboratories, Inc.

Reviewer: MG

2nd Reviewer: *[Signature]***METHOD: (Analyte) Hexavalent Chromium (EPA SW846 Method 7196), Perchlorate (EPA Method 314.0)**

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A	
II	Initial calibration	A	
III.	Calibration verification	A	
IV	Laboratory Blanks	A	
V	Field blanks	ND	EB = 12
VI.	Matrix Spike/Matrix Spike Duplicates	A	MS/MSD
VII.	Duplicate sample analysis	A	DUP
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	SW	D = 2+3, D = 10+11*
X.	Sample result verification	A	Not reviewed for Level III validation
XI	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

\* = ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

\*\* Indicates sample underwent Level IV validation

	Client ID	Lab ID	Matrix	Date
1	MW-3-5	1832779-02	Water	10/17/18
2	MW-3-4	1832779-03	Water	10/17/18
3	DUP-2-4Q18	1832779-04	Water	10/17/18
4	MW-3-3	1832779-05	Water	10/17/18
5	MW-3-2	1832779-06	Water	10/17/18
6	MW-3-1**	1832779-07**	Water	10/17/18
7	MW-17-5	1832779-08	Water	10/17/18
8	MW-17-4	1832779-09	Water	10/17/18
9	MW-17-3	1832779-10	Water	10/17/18
10	MW-17-2**	1832779-11**	Water	10/17/18
11	DUP-3-4Q18	1832779-12	Water	10/17/18
12	EB-3-101718	1832779-13	Water	10/17/18
13	MW-3-5MS	1832779-02MS	Water	10/17/18
14	MW-3-5MSD	1832779-02MSD	Water	10/17/18
15	MW-3-5DUP	1832779-02DUP	Water	10/17/18
16	MW-17-2MS	1832779-11MS	Water	10/17/18
17	MW-17-2MSD	1832779-11MSD	Water	10/17/18

LDC #: 43751A6  
SDG #: 1832779  
Laboratory: BC Laboratories, Inc.

**VALIDATION COMPLETENESS WORKSHEET**  
Level III/IV

Date: 12-5-18  
Page: 2 of 2  
Reviewer: MG  
2nd Reviewer: [Signature]

**METHOD: (Analyte) Hexavalent Chromium (EPA SW846 Method 7196), Perchlorate (EPA Method 314.0)**

	Client ID	Lab ID	Matrix	Date
18	MW-17-2DUP	1832779-11DUP	Water	10/17/18
19				
20				
21				
22	PBW1			
23	PBW2			

Notes:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Method: Inorganics (EPA Method *see cover*)

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
<b>II. Calibration</b>				
Were all instruments calibrated daily, each set-up time?	✓			
Were the proper number of standards used?	✓			
Were all initial calibration correlation coefficients > 0.995?	✓			
Were all initial and continuing calibration verification %Rs within the 90-110% QC limits?	✓			
Were titrant checks performed as required? (Level IV only)			✓	
Were balance checks performed as required? (Level IV only)			✓	
<b>III. Blanks</b>				
Was a method blank associated with every sample in this SDG?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
<b>IV. Matrix spike/Matrix spike duplicates and Duplicates</b>				
Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.	✓			
Were the MS/MSD or duplicate relative percent differences (RPD) ≤ 20% for waters and < 35% for soil samples? A control limit of ≤ CRDL (≤ 2X CRDL for soil) was used for samples that were ≤ 5X the CRDL, including when only one of the duplicate sample values were < 5X the CRDL.	✓			
<b>V. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% (85-115% for Method 300.0) QC limits?	✓			
<b>VI. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

## VALIDATION FINDINGS CHECKLIST

Validation Area	Yes	No	NA	Findings/Comments
<b>VII. Sample Result Verification</b>				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
Were detection limits < RL?	✓			
<b>VIII. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	✓			
<b>IX. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	✓			
Target analytes were detected in the field duplicates.	✓			
<b>X. Field blanks</b>				
Field blanks were identified in this SDG.	✓			
Target analytes were detected in the field blanks.		✓		

**VALIDATION FINDINGS WORKSHEET**  
**Sample Specific Analysis Reference**

All circled methods are applicable to each sample.

Sample ID	Matrix	Parameter
1 → 12	W	pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC <u>CR<sup>6+</sup></u> <u>ClO<sub>4</sub></u>
QC 13 → 18	↓	pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC <u>CR<sup>6+</sup></u> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
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		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>

Comments: \_\_\_\_\_

LDC#: 43751A6

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

Page: 1 of 1

Reviewer: MG

2nd Reviewer: [Signature]

Inorganics, Method See Cover

Analyte	Concentration (ug/L)		RPD	
	2	3		
Perchlorate	1.1	1.0	10	

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LDC #: 43751A6

**VALIDATION FINDINGS WORKSHEET**  
**Initial and Continuing Calibration Calculation Verification**

Page: 1 of 1  
 Reviewer: MG  
 2nd Reviewer: [Signature]

METHOD: Inorganics, Method see coverThe correlation coefficient (r) for the calibration of Cr VI was recalculated. Calibration date: 10-15-18

An initial or continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

$\%R = \frac{\text{Found}}{\text{True}} \times 100$       Where, Found = concentration of each analyte measured in the analysis of the ICV or CCV solution  
 True = concentration of each analyte in the ICV or CCV source

Type of Analysis	Analyte	Standard ID	Conc. Found (units)	Abs. True (units)	Recalculated	Reported	Acceptable (Y/N)
					r or %R	r or %R	
Initial calibration	Cr VI	Blank	0.000 (mg/L)	0.00238	$r^2 = 0.999714$	$r^2 = 0.999714$	Y
		Standard 1	0.002 ( )	0.00359			
		Standard 2	0.005 ( )	0.00547			
		Standard 3	0.025 ( )	0.01853			
		Standard 4	0.050 ( )	0.03561			
		Standard 5	0.100 ( ↓ )	0.06673			
		Standard 6	-	-			
		Standard 7	-	-			
Calibration verification	Cr VI	1347 CCV4	8.640 (mg/L)	10.00 (mg/L)	86.4	86.4	
Calibration verification	Cr VI	2253 CCV4	0.0529 (mg/L)	0.050 (mg/L)	106	106	
Calibration verification	-	-	-	-	-	-	-

Comments: Refer to Calibration Verification findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.



LDC #: 43751A6

**VALIDATION FINDINGS WORKSHEET**  
**Level IV Recalculation Worksheet**

Page: 1 of 1  
 Reviewer: MG  
 2nd Reviewer: [Signature]

METHOD: Inorganics, Method see cover

Percent recoveries (%R) for a laboratory control sample and a matrix spike sample were recalculated using the following formula:

$\%R = \frac{\text{Found}}{\text{True}} \times 100$  Where, Found = concentration of each analyte measured in the analysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result) - SR (sample result).  
 True = concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

$RPD = \frac{|S-D|}{(S+D)/2} \times 100$  Where, S = Original sample concentration  
 D = Duplicate sample concentration

Sample ID	Type of Analysis	Element	Found / S (units)	True / D (units)	Recalculated	Reported	Acceptable (Y/N)
					%R / RPD	%R / RPD	
<u>0174</u> <u>LCS</u>	Laboratory control sample	<u>ClO<sub>4</sub></u>	<u>8.88 (mg/L)</u>	<u>10.00 (mg/L)</u>	<u>88.8</u>	<u>88.8</u>	<u>Y</u>
<u>2253</u> <u>16</u>	Matrix spike sample	<u>Cr VI</u>	(SSR-SR) <u>0.0556 (mg/L)</u>	<u>0.052632 (mg/L)</u>	<u>106</u>	<u>106</u>	↓
<u>2253/2253</u> <u>18</u>	Duplicate sample	<u>Cr VI</u>	<u>0.000704 (mg/L)</u>	<u>0.800704 (mg/L)</u>	<u>0</u>	<u>-</u>	

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

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## NASA JPL, 4Q2018 - LDC# 43751A

SDG: 1832779

Analytical Method		EPA-200.8									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
DUP-2-4Q18	1832779-04	Total Recoverable Chromium	10/26/2018	27	Y	y	v		3.0	0.50	ug/L
DUP-3-4Q18	1832779-12	Total Recoverable Chromium	10/24/2018	3	Y	n	u		3.0	0.50	ug/L
EB-3-101718	1832779-13	Total Recoverable Chromium	10/24/2018	1.7	Y	y	v j	U	3.0	0.50	ug/L
MW-17-2	1832779-11	Total Recoverable Chromium	10/26/2018	1.7	Y	y	v j	U	3.0	0.50	ug/L
MW-17-3	1832779-10	Total Recoverable Chromium	10/26/2018	1	Y	y	v j	U	3.0	0.50	ug/L
MW-17-4	1832779-09	Total Recoverable Chromium	10/26/2018	4	Y	y	v		3.0	0.50	ug/L
MW-17-5	1832779-08	Total Recoverable Chromium	10/26/2018	3.1	Y	y	v		3.0	0.50	ug/L
MW-3-1	1832779-07	Total Recoverable Chromium	10/26/2018	1.2	Y	y	v j	U	3.0	0.50	ug/L
MW-3-2	1832779-06	Total Recoverable Chromium	10/26/2018	2	Y	y	v j	U	3.0	0.50	ug/L
MW-3-3	1832779-05	Total Recoverable Chromium	10/26/2018	3	Y	y	v		3.0	0.50	ug/L
MW-3-4	1832779-03	Total Recoverable Chromium	10/26/2018	19	Y	y	v		3.0	0.50	ug/L
MW-3-5	1832779-02	Total Recoverable Chromium	10/26/2018	1.7	Y	y	v j	U	3.0	0.50	ug/L

Analytical Method		EPA-314.0									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
DUP-2-4Q18	1832779-04	Perchlorate	10/24/2018	1	Y	y	v j		4.0	0.92	ug/L
DUP-3-4Q18	1832779-12	Perchlorate	10/24/2018	4	Y	n	u		4.0	0.92	ug/L
EB-3-101718	1832779-13	Perchlorate	10/24/2018	4	Y	n	u		4.0	0.92	ug/L
MW-17-2	1832779-11	Perchlorate	10/24/2018	4	Y	n	u		4.0	0.92	ug/L
MW-17-3	1832779-10	Perchlorate	10/24/2018	5.1	Y	y	v		4.0	0.92	ug/L
MW-17-4	1832779-09	Perchlorate	10/24/2018	4.2	Y	y	v		4.0	0.92	ug/L
MW-17-5	1832779-08	Perchlorate	10/24/2018	4	Y	y	v		4.0	0.92	ug/L
MW-3-1	1832779-07	Perchlorate	10/24/2018	4	Y	n	u		4.0	0.92	ug/L
MW-3-2	1832779-06	Perchlorate	10/24/2018	4	Y	n	u		4.0	0.92	ug/L

SDG: 1832779

Analytical Method		EPA-314.0									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-3-3	1832779-05	Perchlorate	10/24/2018	1.1	Y	y	v j		4.0	0.92	ug/L
MW-3-4	1832779-03	Perchlorate	10/24/2018	1.1	Y	y	v j		4.0	0.92	ug/L
MW-3-5	1832779-02	Perchlorate	10/31/2018	4	Y	n	u		4.0	0.92	ug/L

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
DUP-2-4Q18	1832779-04	1,4-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-2-4Q18	1832779-04	1,3-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
DUP-2-4Q18	1832779-04	1,2-Dibromo-3-chloropropane	10/22/2018	1	Y	n	u		1.0	0.89	ug/L
DUP-2-4Q18	1832779-04	1,2-Dibromoethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
DUP-2-4Q18	1832779-04	Trichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
DUP-2-4Q18	1832779-04	1,2-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
DUP-2-4Q18	1832779-04	Dichlorodifluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-2-4Q18	1832779-04	1,1-Dichloroethane	10/22/2018	0.18	Y	y	v j		0.50	0.15	ug/L
DUP-2-4Q18	1832779-04	1,2-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-2-4Q18	1832779-04	1,1-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
DUP-2-4Q18	1832779-04	cis-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
DUP-2-4Q18	1832779-04	1,2-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-2-4Q18	1832779-04	tert-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
DUP-2-4Q18	1832779-04	2,2-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
DUP-2-4Q18	1832779-04	1,1-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
DUP-2-4Q18	1832779-04	trans-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-2-4Q18	1832779-04	Carbon tetrachloride	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-2-4Q18	1832779-04	Trichlorofluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-2-4Q18	1832779-04	Bromobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L

SDG: 1832779

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
DUP-2-4Q18	1832779-04	Bromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
DUP-2-4Q18	1832779-04	Bromodichloromethane	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
DUP-2-4Q18	1832779-04	Bromoform	10/22/2018	0.5	Y	n	u		0.50	0.46	ug/L
DUP-2-4Q18	1832779-04	Bromomethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
DUP-2-4Q18	1832779-04	n-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-2-4Q18	1832779-04	Chlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-2-4Q18	1832779-04	1,3-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
DUP-2-4Q18	1832779-04	Dibromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
DUP-2-4Q18	1832779-04	cis-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-2-4Q18	1832779-04	Chloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-2-4Q18	1832779-04	Chloroform	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-2-4Q18	1832779-04	Chloromethane	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L
DUP-2-4Q18	1832779-04	2-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-2-4Q18	1832779-04	4-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.093	ug/L
DUP-2-4Q18	1832779-04	Benzene	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L
DUP-2-4Q18	1832779-04	sec-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
DUP-2-4Q18	1832779-04	trans-1,4-Dichloro-2-butene	10/22/2018	5	Y	n	u		5.0	1.8	ug/L
DUP-2-4Q18	1832779-04	Tetrahydrofuran	10/22/2018	20	Y	n	u		20	5.2	ug/L
DUP-2-4Q18	1832779-04	Propionitrile	10/22/2018	20	Y	n	u		20	6.2	ug/L
DUP-2-4Q18	1832779-04	Pentachloroethane	10/22/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
DUP-2-4Q18	1832779-04	Methyl methacrylate	10/22/2018	5	Y	n	u		5.0	1.2	ug/L
DUP-2-4Q18	1832779-04	Methyl isobutyl ketone	10/22/2018	10	Y	n	u		10	2.4	ug/L
DUP-2-4Q18	1832779-04	Methyl iodide	10/22/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
DUP-2-4Q18	1832779-04	Methyl ethyl ketone	10/22/2018	10	Y	n	u		10	3.3	ug/L
DUP-2-4Q18	1832779-04	Methacrylonitrile	10/22/2018	10	Y	n	u		10	2.3	ug/L

SDG: 1832779

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
DUP-2-4Q18	1832779-04	2-Hexanone	10/22/2018	10	Y	n	u		10	5.0	ug/L
DUP-2-4Q18	1832779-04	Hexachloroethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
DUP-2-4Q18	1832779-04	Ethyl t-butyl ether	10/22/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
DUP-2-4Q18	1832779-04	p- & m-Xylenes	10/22/2018	0.5	Y	n	u		0.50	0.34	ug/L
DUP-2-4Q18	1832779-04	Diethyl ether	10/22/2018	2	Y	n	u		2.0	0.33	ug/L
DUP-2-4Q18	1832779-04	Carbon disulfide	10/22/2018	1	Y	n	u		1.0	0.48	ug/L
DUP-2-4Q18	1832779-04	trans-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
DUP-2-4Q18	1832779-04	t-Butyl alcohol	10/22/2018	10	Y	n	u		10	9.4	ug/L
DUP-2-4Q18	1832779-04	Dibromomethane	10/22/2018	0.5	Y	n	u		0.50	0.23	ug/L
DUP-2-4Q18	1832779-04	Allyl chloride	10/22/2018	5	Y	n	u		5.0	0.47	ug/L
DUP-2-4Q18	1832779-04	Acrylonitrile	10/22/2018	5	Y	n	u		5.0	1.5	ug/L
DUP-2-4Q18	1832779-04	Acetone	10/22/2018	10	Y	n	u		10	6.6	ug/L
DUP-2-4Q18	1832779-04	Vinyl chloride	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
DUP-2-4Q18	1832779-04	1,3,5-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-2-4Q18	1832779-04	1,2,4-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-2-4Q18	1832779-04	1,1,2-Trichloro-1,2,2-trifluoroethane	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
DUP-2-4Q18	1832779-04	1,2,3-Trichloropropane	10/22/2018	1	Y	n	u		1.0	0.78	ug/L
DUP-2-4Q18	1832779-04	Ethyl methacrylate	10/22/2018	4	Y	n	u		4.0	1.3	ug/L
DUP-2-4Q18	1832779-04	Methyl t-butyl ether	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-2-4Q18	1832779-04	t-Amyl Methyl ether	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
DUP-2-4Q18	1832779-04	o-Xylene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
DUP-2-4Q18	1832779-04	Hexachlorobutadiene	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
DUP-2-4Q18	1832779-04	Isopropylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-2-4Q18	1832779-04	Methylene chloride	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
DUP-2-4Q18	1832779-04	Naphthalene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L

SDG: 1832779

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
DUP-2-4Q18	1832779-04	n-Propylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
DUP-2-4Q18	1832779-04	Styrene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
DUP-2-4Q18	1832779-04	1,1,1,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
DUP-2-4Q18	1832779-04	1,1,2,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-2-4Q18	1832779-04	Tetrachloroethene	10/22/2018	0.5	Y	n	u		0.50	0.23	ug/L
DUP-2-4Q18	1832779-04	Nitrobenzene	10/22/2018	0	Y	y	v				ug/L
DUP-2-4Q18	1832779-04	Chloroacetonitrile	10/22/2018	0	Y	y	v				ug/L
DUP-2-4Q18	1832779-04	1-Chlorobutane	10/22/2018	0	Y	y	v				ug/L
DUP-2-4Q18	1832779-04	p-Isopropyltoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-2-4Q18	1832779-04	Toluene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-2-4Q18	1832779-04	1,1-Dichloropropanone	10/22/2018	0	Y	y	v				ug/L
DUP-2-4Q18	1832779-04	Methyl acrylate	10/22/2018	0	Y	y	v				ug/L
DUP-2-4Q18	1832779-04	2-Nitropropane	10/22/2018	0	Y	y	v				ug/L
DUP-2-4Q18	1832779-04	1,1,2-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
DUP-2-4Q18	1832779-04	1,1,1-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
DUP-2-4Q18	1832779-04	1,2,4-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-2-4Q18	1832779-04	1,2,3-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
DUP-2-4Q18	1832779-04	Ethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-3-4Q18	1832779-12	Dibromomethane	10/22/2018	0.5	Y	n	u		0.50	0.23	ug/L
DUP-3-4Q18	1832779-12	1,3-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
DUP-3-4Q18	1832779-12	1,1-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-3-4Q18	1832779-12	1,3-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
DUP-3-4Q18	1832779-12	1,4-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-3-4Q18	1832779-12	Dichlorodifluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-3-4Q18	1832779-12	1,2-Dibromoethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L

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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
DUP-3-4Q18	1832779-12	1,2-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
DUP-3-4Q18	1832779-12	1,2-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-3-4Q18	1832779-12	1,1-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
DUP-3-4Q18	1832779-12	cis-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
DUP-3-4Q18	1832779-12	1,2-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-3-4Q18	1832779-12	2,2-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
DUP-3-4Q18	1832779-12	1,2-Dibromo-3-chloropropane	10/22/2018	1	Y	n	u		1.0	0.89	ug/L
DUP-3-4Q18	1832779-12	Bromoform	10/22/2018	0.5	Y	n	u		0.50	0.46	ug/L
DUP-3-4Q18	1832779-12	1,1-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
DUP-3-4Q18	1832779-12	trans-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-3-4Q18	1832779-12	tert-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
DUP-3-4Q18	1832779-12	cis-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-3-4Q18	1832779-12	Isopropylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-3-4Q18	1832779-12	Benzene	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L
DUP-3-4Q18	1832779-12	Bromobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-3-4Q18	1832779-12	Bromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
DUP-3-4Q18	1832779-12	Bromodichloromethane	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
DUP-3-4Q18	1832779-12	n-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-3-4Q18	1832779-12	sec-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
DUP-3-4Q18	1832779-12	Dibromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
DUP-3-4Q18	1832779-12	Carbon tetrachloride	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-3-4Q18	1832779-12	Chlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-3-4Q18	1832779-12	Chloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-3-4Q18	1832779-12	Chloroform	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-3-4Q18	1832779-12	Chloromethane	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L



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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
DUP-3-4Q18	1832779-12	2-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-3-4Q18	1832779-12	4-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.093	ug/L
DUP-3-4Q18	1832779-12	Bromomethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
DUP-3-4Q18	1832779-12	Methyl methacrylate	10/22/2018	5	Y	n	u		5.0	1.2	ug/L
DUP-3-4Q18	1832779-12	t-Butyl alcohol	10/22/2018	10	Y	n	u		10	9.4	ug/L
DUP-3-4Q18	1832779-12	Carbon disulfide	10/22/2018	1	Y	n	u		1.0	0.48	ug/L
DUP-3-4Q18	1832779-12	trans-1,4-Dichloro-2-butene	10/22/2018	5	Y	n	u		5.0	1.8	ug/L
DUP-3-4Q18	1832779-12	Diethyl ether	10/22/2018	2	Y	n	u		2.0	0.33	ug/L
DUP-3-4Q18	1832779-12	Ethyl methacrylate	10/22/2018	4	Y	n	u		4.0	1.3	ug/L
DUP-3-4Q18	1832779-12	Ethyl t-butyl ether	10/22/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
DUP-3-4Q18	1832779-12	Hexachloroethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
DUP-3-4Q18	1832779-12	2-Hexanone	10/22/2018	10	Y	n	u		10	5.0	ug/L
DUP-3-4Q18	1832779-12	Methacrylonitrile	10/22/2018	10	Y	n	u		10	2.3	ug/L
DUP-3-4Q18	1832779-12	Methyl ethyl ketone	10/22/2018	10	Y	n	u		10	3.3	ug/L
DUP-3-4Q18	1832779-12	t-Amyl Methyl ether	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
DUP-3-4Q18	1832779-12	Methyl isobutyl ketone	10/22/2018	10	Y	n	u		10	2.4	ug/L
DUP-3-4Q18	1832779-12	1-Chlorobutane	10/22/2018	0	Y	y	v				ug/L
DUP-3-4Q18	1832779-12	Pentachloroethane	10/22/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
DUP-3-4Q18	1832779-12	Propionitrile	10/22/2018	20	Y	n	u		20	6.2	ug/L
DUP-3-4Q18	1832779-12	Tetrahydrofuran	10/22/2018	20	Y	n	u		20	5.2	ug/L
DUP-3-4Q18	1832779-12	p- & m-Xylenes	10/22/2018	0.5	Y	n	u		0.50	0.34	ug/L
DUP-3-4Q18	1832779-12	o-Xylene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
DUP-3-4Q18	1832779-12	Chloroacetonitrile	10/22/2018	0	Y	y	v				ug/L
DUP-3-4Q18	1832779-12	1,1-Dichloropropanone	10/22/2018	0	Y	y	v				ug/L
DUP-3-4Q18	1832779-12	Nitrobenzene	10/22/2018	0	Y	y	v				ug/L

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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
DUP-3-4Q18	1832779-12	2-Nitropropane	10/22/2018	0	Y	y	v				ug/L
DUP-3-4Q18	1832779-12	trans-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
DUP-3-4Q18	1832779-12	Ethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-3-4Q18	1832779-12	Methyl iodide	10/22/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
DUP-3-4Q18	1832779-12	Methylene chloride	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
DUP-3-4Q18	1832779-12	Hexachlorobutadiene	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
DUP-3-4Q18	1832779-12	Methyl acrylate	10/22/2018	0	Y	y	v				ug/L
DUP-3-4Q18	1832779-12	Allyl chloride	10/22/2018	5	Y	n	u		5.0	0.47	ug/L
DUP-3-4Q18	1832779-12	p-Isopropyltoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-3-4Q18	1832779-12	Methyl t-butyl ether	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-3-4Q18	1832779-12	Naphthalene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
DUP-3-4Q18	1832779-12	n-Propylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
DUP-3-4Q18	1832779-12	Styrene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
DUP-3-4Q18	1832779-12	1,1,1,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
DUP-3-4Q18	1832779-12	1,1,2,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-3-4Q18	1832779-12	Tetrachloroethene	10/22/2018	0.5	Y	n	u		0.50	0.23	ug/L
DUP-3-4Q18	1832779-12	Toluene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-3-4Q18	1832779-12	Acrylonitrile	10/22/2018	5	Y	n	u		5.0	1.5	ug/L
DUP-3-4Q18	1832779-12	Vinyl chloride	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
DUP-3-4Q18	1832779-12	1,2,3-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
DUP-3-4Q18	1832779-12	Acetone	10/22/2018	10	Y	n	u		10	6.6	ug/L
DUP-3-4Q18	1832779-12	1,3,5-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-3-4Q18	1832779-12	1,2,4-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-3-4Q18	1832779-12	1,1,2-Trichloro-1,2,2-trifluoroethane	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
DUP-3-4Q18	1832779-12	1,1,1-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
DUP-3-4Q18	1832779-12	1,2,4-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-3-4Q18	1832779-12	Trichlorofluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-3-4Q18	1832779-12	Trichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
DUP-3-4Q18	1832779-12	1,1,2-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
DUP-3-4Q18	1832779-12	1,2,3-Trichloropropane	10/22/2018	1	Y	n	u		1.0	0.78	ug/L
EB-3-101718	1832779-13	1,2,4-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-3-101718	1832779-13	1,3,5-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-3-101718	1832779-13	Vinyl chloride	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
EB-3-101718	1832779-13	Acetone	10/22/2018	10	Y	n	u		10	6.6	ug/L
EB-3-101718	1832779-13	t-Butyl alcohol	10/22/2018	10	Y	n	u		10	9.4	ug/L
EB-3-101718	1832779-13	Allyl chloride	10/22/2018	5	Y	n	u		5.0	0.47	ug/L
EB-3-101718	1832779-13	t-Amyl Methyl ether	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
EB-3-101718	1832779-13	1,1,1-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
EB-3-101718	1832779-13	Carbon disulfide	10/22/2018	1	Y	n	u		1.0	0.48	ug/L
EB-3-101718	1832779-13	Acrylonitrile	10/22/2018	5	Y	n	u		5.0	1.5	ug/L
EB-3-101718	1832779-13	1,1,2-Trichloro-1,2,2-trifluoroethane	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
EB-3-101718	1832779-13	1,2,3-Trichloropropane	10/22/2018	1	Y	n	u		1.0	0.78	ug/L
EB-3-101718	1832779-13	Trichlorofluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-3-101718	1832779-13	Tetrachloroethene	10/22/2018	0.5	Y	n	u		0.50	0.23	ug/L
EB-3-101718	1832779-13	1,1,2-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
EB-3-101718	1832779-13	1,2,4-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-3-101718	1832779-13	1,2,3-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
EB-3-101718	1832779-13	Toluene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-3-101718	1832779-13	trans-1,4-Dichloro-2-butene	10/22/2018	5	Y	n	u		5.0	1.8	ug/L
EB-3-101718	1832779-13	Propionitrile	10/22/2018	20	Y	n	u		20	6.2	ug/L

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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
EB-3-101718	1832779-13	1,1,2,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-3-101718	1832779-13	Trichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
EB-3-101718	1832779-13	Pentachloroethane	10/22/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
EB-3-101718	1832779-13	1,2-Dibromo-3-chloropropane	10/22/2018	1	Y	n	u		1.0	0.89	ug/L
EB-3-101718	1832779-13	1,1,1,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
EB-3-101718	1832779-13	Nitrobenzene	10/22/2018	0	Y	y	v				ug/L
EB-3-101718	1832779-13	Methyl acrylate	10/22/2018	0	Y	y	v				ug/L
EB-3-101718	1832779-13	1,1-Dichloropropanone	10/22/2018	0	Y	y	v				ug/L
EB-3-101718	1832779-13	1-Chlorobutane	10/22/2018	0	Y	y	v				ug/L
EB-3-101718	1832779-13	Chloroacetonitrile	10/22/2018	0	Y	y	v				ug/L
EB-3-101718	1832779-13	o-Xylene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
EB-3-101718	1832779-13	Methyl methacrylate	10/22/2018	5	Y	n	u		5.0	1.2	ug/L
EB-3-101718	1832779-13	Tetrahydrofuran	10/22/2018	20	Y	n	u		20	5.2	ug/L
EB-3-101718	1832779-13	Diethyl ether	10/22/2018	2	Y	n	u		2.0	0.33	ug/L
EB-3-101718	1832779-13	Methyl isobutyl ketone	10/22/2018	10	Y	n	u		10	2.4	ug/L
EB-3-101718	1832779-13	Methyl iodide	10/22/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
EB-3-101718	1832779-13	Methyl ethyl ketone	10/22/2018	10	Y	n	u		10	3.3	ug/L
EB-3-101718	1832779-13	Methacrylonitrile	10/22/2018	10	Y	n	u		10	2.3	ug/L
EB-3-101718	1832779-13	2-Hexanone	10/22/2018	10	Y	n	u		10	5.0	ug/L
EB-3-101718	1832779-13	Hexachloroethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
EB-3-101718	1832779-13	2-Nitropropane	10/22/2018	0	Y	y	v				ug/L
EB-3-101718	1832779-13	Ethyl t-butyl ether	10/22/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
EB-3-101718	1832779-13	Ethyl methacrylate	10/22/2018	4	Y	n	u		4.0	1.3	ug/L
EB-3-101718	1832779-13	p- & m-Xylenes	10/22/2018	0.5	Y	n	u		0.50	0.34	ug/L
EB-3-101718	1832779-13	tert-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L

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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
EB-3-101718	1832779-13	Dibromomethane	10/22/2018	0.5	Y	n	u		0.50	0.23	ug/L
EB-3-101718	1832779-13	1,2-Dibromoethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
EB-3-101718	1832779-13	Dibromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
EB-3-101718	1832779-13	4-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.093	ug/L
EB-3-101718	1832779-13	2-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-3-101718	1832779-13	Chloromethane	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L
EB-3-101718	1832779-13	Chloroform	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-3-101718	1832779-13	Chloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-3-101718	1832779-13	1,3-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
EB-3-101718	1832779-13	Carbon tetrachloride	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-3-101718	1832779-13	1,4-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-3-101718	1832779-13	sec-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
EB-3-101718	1832779-13	n-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-3-101718	1832779-13	Bromomethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
EB-3-101718	1832779-13	Bromoform	10/22/2018	0.5	Y	n	u		0.50	0.46	ug/L
EB-3-101718	1832779-13	Bromodichloromethane	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
EB-3-101718	1832779-13	Bromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
EB-3-101718	1832779-13	Bromobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-3-101718	1832779-13	Benzene	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L
EB-3-101718	1832779-13	Chlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-3-101718	1832779-13	1,1-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
EB-3-101718	1832779-13	n-Propylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
EB-3-101718	1832779-13	Naphthalene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
EB-3-101718	1832779-13	Methyl t-butyl ether	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-3-101718	1832779-13	Methylene chloride	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
EB-3-101718	1832779-13	p-Isopropyltoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-3-101718	1832779-13	Isopropylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-3-101718	1832779-13	Hexachlorobutadiene	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
EB-3-101718	1832779-13	Ethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-3-101718	1832779-13	1,2-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
EB-3-101718	1832779-13	cis-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-3-101718	1832779-13	Styrene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
EB-3-101718	1832779-13	2,2-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
EB-3-101718	1832779-13	1,3-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
EB-3-101718	1832779-13	1,2-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-3-101718	1832779-13	trans-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-3-101718	1832779-13	cis-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
EB-3-101718	1832779-13	1,1-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
EB-3-101718	1832779-13	1,2-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-3-101718	1832779-13	1,1-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-3-101718	1832779-13	Dichlorodifluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-3-101718	1832779-13	trans-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-17-2	1832779-11	cis-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-17-2	1832779-11	Naphthalene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-17-2	1832779-11	1,1,2-Trichloro-1,2,2-trifluoroethane	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-17-2	1832779-11	1,2,3-Trichloropropane	10/22/2018	1	Y	n	u		1.0	0.78	ug/L
MW-17-2	1832779-11	Trichlorofluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-17-2	1832779-11	Trichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-17-2	1832779-11	1,1,2-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-17-2	1832779-11	1,1,1-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-17-2	1832779-11	1,2,4-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-17-2	1832779-11	1,2,3-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-17-2	1832779-11	Toluene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-17-2	1832779-11	Tetrachloroethene	10/22/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-17-2	1832779-11	1,1,2,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-17-2	1832779-11	1,1,1,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-17-2	1832779-11	1,1-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-17-2	1832779-11	n-Propylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-17-2	1832779-11	Vinyl chloride	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-17-2	1832779-11	Methyl t-butyl ether	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-17-2	1832779-11	Methylene chloride	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-17-2	1832779-11	p-Isopropyltoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-17-2	1832779-11	Isopropylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-17-2	1832779-11	Hexachlorobutadiene	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-17-2	1832779-11	Ethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-17-2	1832779-11	trans-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-17-2	1832779-11	1,1-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-17-2	1832779-11	1,3-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-17-2	1832779-11	1,2-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-17-2	1832779-11	trans-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-17-2	1832779-11	cis-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-17-2	1832779-11	Styrene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-17-2	1832779-11	Methyl ethyl ketone	10/22/2018	10	Y	n	u		10	3.3	ug/L
MW-17-2	1832779-11	2-Nitropropane	10/22/2018	0	Y	y	v				ug/L
MW-17-2	1832779-11	Nitrobenzene	10/22/2018	0	Y	y	v				ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-17-2	1832779-11	Methyl acrylate	10/22/2018	0	Y	y	v				ug/L
MW-17-2	1832779-11	1,1-Dichloropropanone	10/22/2018	0	Y	y	v				ug/L
MW-17-2	1832779-11	1-Chlorobutane	10/22/2018	0	Y	y	v				ug/L
MW-17-2	1832779-11	Chloroacetonitrile	10/22/2018	0	Y	y	v				ug/L
MW-17-2	1832779-11	o-Xylene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-17-2	1832779-11	p- & m-Xylenes	10/22/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-17-2	1832779-11	Tetrahydrofuran	10/22/2018	20	Y	n	u		20	5.2	ug/L
MW-17-2	1832779-11	Propionitrile	10/22/2018	20	Y	n	u		20	6.2	ug/L
MW-17-2	1832779-11	Pentachloroethane	10/22/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-17-2	1832779-11	Methyl methacrylate	10/22/2018	5	Y	n	u		5.0	1.2	ug/L
MW-17-2	1832779-11	1,2,4-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-17-2	1832779-11	Methyl iodide	10/22/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-17-2	1832779-11	1,3,5-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-17-2	1832779-11	Methacrylonitrile	10/22/2018	10	Y	n	u		10	2.3	ug/L
MW-17-2	1832779-11	2-Hexanone	10/22/2018	10	Y	n	u		10	5.0	ug/L
MW-17-2	1832779-11	Hexachloroethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
MW-17-2	1832779-11	Ethyl t-butyl ether	10/22/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
MW-17-2	1832779-11	Ethyl methacrylate	10/22/2018	4	Y	n	u		4.0	1.3	ug/L
MW-17-2	1832779-11	Diethyl ether	10/22/2018	2	Y	n	u		2.0	0.33	ug/L
MW-17-2	1832779-11	trans-1,4-Dichloro-2-butene	10/22/2018	5	Y	n	u		5.0	1.8	ug/L
MW-17-2	1832779-11	Carbon disulfide	10/22/2018	1	Y	n	u		1.0	0.48	ug/L
MW-17-2	1832779-11	2,2-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-17-2	1832779-11	t-Amyl Methyl ether	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-17-2	1832779-11	Acrylonitrile	10/22/2018	5	Y	n	u		5.0	1.5	ug/L
MW-17-2	1832779-11	Acetone	10/22/2018	10	Y	n	u		10	6.6	ug/L



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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-17-2	1832779-11	Allyl chloride	10/22/2018	5	Y	n	u		5.0	0.47	ug/L
MW-17-2	1832779-11	Methyl isobutyl ketone	10/22/2018	10	Y	n	u		10	2.4	ug/L
MW-17-2	1832779-11	Bromodichloromethane	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-17-2	1832779-11	1,2-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-17-2	1832779-11	t-Butyl alcohol	10/22/2018	10	Y	n	u		10	9.4	ug/L
MW-17-2	1832779-11	Benzene	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-17-2	1832779-11	Bromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-17-2	1832779-11	Bromoform	10/22/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-17-2	1832779-11	Bromomethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-17-2	1832779-11	n-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-17-2	1832779-11	sec-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-17-2	1832779-11	tert-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-17-2	1832779-11	Carbon tetrachloride	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-17-2	1832779-11	Chlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-17-2	1832779-11	Chloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-17-2	1832779-11	Chloroform	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-17-2	1832779-11	Dichlorodifluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-17-2	1832779-11	Bromobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-17-2	1832779-11	1,1-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-17-2	1832779-11	Chloromethane	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-17-2	1832779-11	1,4-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-17-2	1832779-11	1,3-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-17-2	1832779-11	1,2-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-17-2	1832779-11	Dibromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-17-2	1832779-11	Dibromomethane	10/22/2018	0.5	Y	n	u		0.50	0.23	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-17-2	1832779-11	1,2-Dibromoethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-17-2	1832779-11	1,2-Dibromo-3-chloropropane	10/22/2018	1	Y	n	u		1.0	0.89	ug/L
MW-17-2	1832779-11	2-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-17-2	1832779-11	4-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-17-3	1832779-10	1,4-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-17-3	1832779-10	1,3-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-17-3	1832779-10	1,2-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-17-3	1832779-10	Dichlorodifluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-17-3	1832779-10	1,2-Dibromoethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-17-3	1832779-10	trans-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-17-3	1832779-10	1,2-Dibromo-3-chloropropane	10/22/2018	1	Y	n	u		1.0	0.89	ug/L
MW-17-3	1832779-10	trans-1,4-Dichloro-2-butene	10/22/2018	5	Y	n	u		5.0	1.8	ug/L
MW-17-3	1832779-10	Dibromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-17-3	1832779-10	Dibromomethane	10/22/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-17-3	1832779-10	1,1-Dichloroethane	10/22/2018	0.15	Y	y	v j		0.50	0.15	ug/L
MW-17-3	1832779-10	1,2-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-17-3	1832779-10	1,2-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-17-3	1832779-10	cis-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-17-3	1832779-10	cis-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-17-3	1832779-10	1,3-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-17-3	1832779-10	2,2-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-17-3	1832779-10	1,1-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-17-3	1832779-10	Diethyl ether	10/22/2018	2	Y	n	u		2.0	0.33	ug/L
MW-17-3	1832779-10	Bromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-17-3	1832779-10	1,1-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-17-3	1832779-10	Bromomethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-17-3	1832779-10	Methyl ethyl ketone	10/22/2018	10	Y	n	u		10	3.3	ug/L
MW-17-3	1832779-10	Methacrylonitrile	10/22/2018	10	Y	n	u		10	2.3	ug/L
MW-17-3	1832779-10	2-Hexanone	10/22/2018	10	Y	n	u		10	5.0	ug/L
MW-17-3	1832779-10	Hexachloroethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
MW-17-3	1832779-10	Ethyl t-butyl ether	10/22/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
MW-17-3	1832779-10	Ethyl methacrylate	10/22/2018	4	Y	n	u		4.0	1.3	ug/L
MW-17-3	1832779-10	Benzene	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-17-3	1832779-10	Bromobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-17-3	1832779-10	n-Propylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-17-3	1832779-10	Bromoform	10/22/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-17-3	1832779-10	trans-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-17-3	1832779-10	4-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-17-3	1832779-10	n-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-17-3	1832779-10	sec-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-17-3	1832779-10	tert-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-17-3	1832779-10	Carbon tetrachloride	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-17-3	1832779-10	Chlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-17-3	1832779-10	Chloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-17-3	1832779-10	Chloroform	10/22/2018	0.36	Y	y	v j		0.50	0.14	ug/L
MW-17-3	1832779-10	Chloromethane	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-17-3	1832779-10	2-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-17-3	1832779-10	Bromodichloromethane	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-17-3	1832779-10	p- & m-Xylenes	10/22/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-17-3	1832779-10	Vinyl chloride	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-17-3	1832779-10	1,3,5-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-17-3	1832779-10	1,2,4-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-17-3	1832779-10	1,1,2-Trichloro-1,2,2-trifluoroethane	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-17-3	1832779-10	1,2,3-Trichloropropane	10/22/2018	1	Y	n	u		1.0	0.78	ug/L
MW-17-3	1832779-10	Ethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-17-3	1832779-10	Methyl methacrylate	10/22/2018	5	Y	n	u		5.0	1.2	ug/L
MW-17-3	1832779-10	Methyl t-butyl ether	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-17-3	1832779-10	Acetone	10/22/2018	10	Y	n	u		10	6.6	ug/L
MW-17-3	1832779-10	Tetrahydrofuran	10/22/2018	20	Y	n	u		20	5.2	ug/L
MW-17-3	1832779-10	Methyl isobutyl ketone	10/22/2018	10	Y	n	u		10	2.4	ug/L
MW-17-3	1832779-10	Methyl iodide	10/22/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-17-3	1832779-10	o-Xylene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-17-3	1832779-10	Chloroacetonitrile	10/22/2018	0	Y	y	v				ug/L
MW-17-3	1832779-10	1-Chlorobutane	10/22/2018	0	Y	y	v				ug/L
MW-17-3	1832779-10	1,1-Dichloropropanone	10/22/2018	0	Y	y	v				ug/L
MW-17-3	1832779-10	Methyl acrylate	10/22/2018	0	Y	y	v				ug/L
MW-17-3	1832779-10	Nitrobenzene	10/22/2018	0	Y	y	v				ug/L
MW-17-3	1832779-10	2-Nitropropane	10/22/2018	0	Y	y	v				ug/L
MW-17-3	1832779-10	Propionitrile	10/22/2018	20	Y	n	u		20	6.2	ug/L
MW-17-3	1832779-10	Tetrachloroethene	10/22/2018	0.28	Y	y	v j		0.50	0.23	ug/L
MW-17-3	1832779-10	p-Isopropyltoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-17-3	1832779-10	Isopropylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-17-3	1832779-10	Hexachlorobutadiene	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-17-3	1832779-10	Pentachloroethane	10/22/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-17-3	1832779-10	Acrylonitrile	10/22/2018	5	Y	n	u		5.0	1.5	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-17-3	1832779-10	Naphthalene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-17-3	1832779-10	Styrene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-17-3	1832779-10	1,1,2,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-17-3	1832779-10	Methylene chloride	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-17-3	1832779-10	Toluene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-17-3	1832779-10	Carbon disulfide	10/22/2018	1	Y	n	u		1.0	0.48	ug/L
MW-17-3	1832779-10	Allyl chloride	10/22/2018	5	Y	n	u		5.0	0.47	ug/L
MW-17-3	1832779-10	t-Amyl Methyl ether	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-17-3	1832779-10	1,1,1,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-17-3	1832779-10	t-Butyl alcohol	10/22/2018	10	Y	n	u		10	9.4	ug/L
MW-17-3	1832779-10	1,2,3-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-17-3	1832779-10	Trichlorofluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-17-3	1832779-10	Trichloroethene	10/22/2018	1.5	Y	y	v		0.50	0.19	ug/L
MW-17-3	1832779-10	1,1,2-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-17-3	1832779-10	1,1,1-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-17-3	1832779-10	1,2,4-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-17-4	1832779-09	Pentachloroethane	10/22/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-17-4	1832779-09	Methyl iodide	10/22/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-17-4	1832779-09	Methyl isobutyl ketone	10/22/2018	10	Y	n	u		10	2.4	ug/L
MW-17-4	1832779-09	Methyl methacrylate	10/22/2018	5	Y	n	u		5.0	1.2	ug/L
MW-17-4	1832779-09	Bromomethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-17-4	1832779-09	Propionitrile	10/22/2018	20	Y	n	u		20	6.2	ug/L
MW-17-4	1832779-09	Tetrahydrofuran	10/22/2018	20	Y	n	u		20	5.2	ug/L
MW-17-4	1832779-09	p- & m-Xylenes	10/22/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-17-4	1832779-09	o-Xylene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-17-4	1832779-09	Chloroacetonitrile	10/22/2018	0	Y	y	v				ug/L
MW-17-4	1832779-09	1-Chlorobutane	10/22/2018	0	Y	y	v				ug/L
MW-17-4	1832779-09	1,1-Dichloropropanone	10/22/2018	0	Y	y	v				ug/L
MW-17-4	1832779-09	Methyl acrylate	10/22/2018	0	Y	y	v				ug/L
MW-17-4	1832779-09	2-Nitropropane	10/22/2018	0	Y	y	v				ug/L
MW-17-4	1832779-09	Nitrobenzene	10/22/2018	0	Y	y	v				ug/L
MW-17-4	1832779-09	1,2-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-17-4	1832779-09	Isopropylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-17-4	1832779-09	1,4-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-17-4	1832779-09	Dichlorodifluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-17-4	1832779-09	1,1-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-17-4	1832779-09	1,2-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-17-4	1832779-09	1,1-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-17-4	1832779-09	1,2-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-17-4	1832779-09	trans-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-17-4	1832779-09	Dibromomethane	10/22/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-17-4	1832779-09	1,3-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-17-4	1832779-09	2,2-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-17-4	1832779-09	1,1-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-17-4	1832779-09	cis-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-17-4	1832779-09	trans-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-17-4	1832779-09	Ethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-17-4	1832779-09	Hexachlorobutadiene	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-17-4	1832779-09	cis-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-17-4	1832779-09	Chloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-17-4	1832779-09	Bromodichloromethane	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-17-4	1832779-09	Benzene	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-17-4	1832779-09	Bromobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-17-4	1832779-09	Bromoform	10/22/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-17-4	1832779-09	sec-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-17-4	1832779-09	tert-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-17-4	1832779-09	1,3-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-17-4	1832779-09	Chlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-17-4	1832779-09	n-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-17-4	1832779-09	Chloroform	10/22/2018	0.42	Y	y	v j		0.50	0.14	ug/L
MW-17-4	1832779-09	Chloromethane	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-17-4	1832779-09	2-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-17-4	1832779-09	4-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-17-4	1832779-09	Dibromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-17-4	1832779-09	1,2-Dibromo-3-chloropropane	10/22/2018	1	Y	n	u		1.0	0.89	ug/L
MW-17-4	1832779-09	1,2-Dibromoethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-17-4	1832779-09	Carbon tetrachloride	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-17-4	1832779-09	Diethyl ether	10/22/2018	2	Y	n	u		2.0	0.33	ug/L
MW-17-4	1832779-09	Vinyl chloride	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-17-4	1832779-09	Acetone	10/22/2018	10	Y	n	u		10	6.6	ug/L
MW-17-4	1832779-09	Acrylonitrile	10/22/2018	5	Y	n	u		5.0	1.5	ug/L
MW-17-4	1832779-09	Allyl chloride	10/22/2018	5	Y	n	u		5.0	0.47	ug/L
MW-17-4	1832779-09	t-Amyl Methyl ether	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-17-4	1832779-09	t-Butyl alcohol	10/22/2018	10	Y	n	u		10	9.4	ug/L
MW-17-4	1832779-09	1,3,5-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-17-4	1832779-09	trans-1,4-Dichloro-2-butene	10/22/2018	5	Y	n	u		5.0	1.8	ug/L
MW-17-4	1832779-09	2-Hexanone	10/22/2018	10	Y	n	u		10	5.0	ug/L
MW-17-4	1832779-09	Ethyl methacrylate	10/22/2018	4	Y	n	u		4.0	1.3	ug/L
MW-17-4	1832779-09	Ethyl t-butyl ether	10/22/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
MW-17-4	1832779-09	Methyl ethyl ketone	10/22/2018	10	Y	n	u		10	3.3	ug/L
MW-17-4	1832779-09	Hexachloroethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
MW-17-4	1832779-09	Methacrylonitrile	10/22/2018	10	Y	n	u		10	2.3	ug/L
MW-17-4	1832779-09	p-Isopropyltoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-17-4	1832779-09	Bromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-17-4	1832779-09	Carbon disulfide	10/22/2018	1	Y	n	u		1.0	0.48	ug/L
MW-17-4	1832779-09	1,1,2,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-17-4	1832779-09	Methylene chloride	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-17-4	1832779-09	Methyl t-butyl ether	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-17-4	1832779-09	n-Propylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-17-4	1832779-09	1,2,4-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-17-4	1832779-09	1,1,1,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-17-4	1832779-09	Naphthalene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-17-4	1832779-09	Tetrachloroethene	10/22/2018	0.27	Y	y	v j		0.50	0.23	ug/L
MW-17-4	1832779-09	Toluene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-17-4	1832779-09	1,2,3-Trichloropropane	10/22/2018	1	Y	n	u		1.0	0.78	ug/L
MW-17-4	1832779-09	Styrene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-17-4	1832779-09	1,1,2-Trichloro-1,2,2-trifluoroethane	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-17-4	1832779-09	1,2,3-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-17-4	1832779-09	Trichlorofluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-17-4	1832779-09	Trichloroethene	10/22/2018	0.66	Y	y	v		0.50	0.19	ug/L



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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-17-4	1832779-09	1,1,2-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-17-4	1832779-09	1,1,1-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-17-4	1832779-09	1,2,4-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-17-5	1832779-08	Methylene chloride	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-17-5	1832779-08	Naphthalene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-17-5	1832779-08	n-Propylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-17-5	1832779-08	Styrene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-17-5	1832779-08	1,1,1,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-17-5	1832779-08	1,1,2,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-17-5	1832779-08	Methyl t-butyl ether	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-17-5	1832779-08	Tetrachloroethene	10/22/2018	0.29	Y	y	v j		0.50	0.23	ug/L
MW-17-5	1832779-08	Toluene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-17-5	1832779-08	1,2,3-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-17-5	1832779-08	1,2,4-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-17-5	1832779-08	1,1,1-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-17-5	1832779-08	Trichloroethene	10/22/2018	0.83	Y	y	v		0.50	0.19	ug/L
MW-17-5	1832779-08	2,2-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-17-5	1832779-08	Trichlorofluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-17-5	1832779-08	1,1,2-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-17-5	1832779-08	1,3-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-17-5	1832779-08	Methyl iodide	10/22/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-17-5	1832779-08	1,2,3-Trichloropropane	10/22/2018	1	Y	n	u		1.0	0.78	ug/L
MW-17-5	1832779-08	1,2-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-17-5	1832779-08	1,1-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-17-5	1832779-08	cis-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-17-5	1832779-08	cis-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-17-5	1832779-08	1,2-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-17-5	1832779-08	p-Isopropyltoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-17-5	1832779-08	1,1-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-17-5	1832779-08	1,1-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-17-5	1832779-08	trans-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-17-5	1832779-08	Ethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-17-5	1832779-08	Hexachlorobutadiene	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-17-5	1832779-08	Isopropylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-17-5	1832779-08	trans-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-17-5	1832779-08	1-Chlorobutane	10/22/2018	0	Y	y	v				ug/L
MW-17-5	1832779-08	Methyl methacrylate	10/22/2018	5	Y	n	u		5.0	1.2	ug/L
MW-17-5	1832779-08	Pentachloroethane	10/22/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-17-5	1832779-08	Propionitrile	10/22/2018	20	Y	n	u		20	6.2	ug/L
MW-17-5	1832779-08	Tetrahydrofuran	10/22/2018	20	Y	n	u		20	5.2	ug/L
MW-17-5	1832779-08	p- & m-Xylenes	10/22/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-17-5	1832779-08	Methacrylonitrile	10/22/2018	10	Y	n	u		10	2.3	ug/L
MW-17-5	1832779-08	Chloroacetonitrile	10/22/2018	0	Y	y	v				ug/L
MW-17-5	1832779-08	2-Hexanone	10/22/2018	10	Y	n	u		10	5.0	ug/L
MW-17-5	1832779-08	1,1-Dichloropropanone	10/22/2018	0	Y	y	v				ug/L
MW-17-5	1832779-08	Methyl acrylate	10/22/2018	0	Y	y	v				ug/L
MW-17-5	1832779-08	Nitrobenzene	10/22/2018	0	Y	y	v				ug/L
MW-17-5	1832779-08	2-Nitropropane	10/22/2018	0	Y	y	v				ug/L
MW-17-5	1832779-08	1,4-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-17-5	1832779-08	1,3-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L

SDG: 1832779

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-17-5	1832779-08	o-Xylene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-17-5	1832779-08	Carbon disulfide	10/22/2018	1	Y	n	u		1.0	0.48	ug/L
MW-17-5	1832779-08	1,2,4-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-17-5	1832779-08	1,3,5-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-17-5	1832779-08	Vinyl chloride	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-17-5	1832779-08	Acetone	10/22/2018	10	Y	n	u		10	6.6	ug/L
MW-17-5	1832779-08	Acrylonitrile	10/22/2018	5	Y	n	u		5.0	1.5	ug/L
MW-17-5	1832779-08	Allyl chloride	10/22/2018	5	Y	n	u		5.0	0.47	ug/L
MW-17-5	1832779-08	Methyl isobutyl ketone	10/22/2018	10	Y	n	u		10	2.4	ug/L
MW-17-5	1832779-08	t-Butyl alcohol	10/22/2018	10	Y	n	u		10	9.4	ug/L
MW-17-5	1832779-08	Methyl ethyl ketone	10/22/2018	10	Y	n	u		10	3.3	ug/L
MW-17-5	1832779-08	trans-1,4-Dichloro-2-butene	10/22/2018	5	Y	n	u		5.0	1.8	ug/L
MW-17-5	1832779-08	Diethyl ether	10/22/2018	2	Y	n	u		2.0	0.33	ug/L
MW-17-5	1832779-08	Ethyl methacrylate	10/22/2018	4	Y	n	u		4.0	1.3	ug/L
MW-17-5	1832779-08	Ethyl t-butyl ether	10/22/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
MW-17-5	1832779-08	Hexachloroethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
MW-17-5	1832779-08	1,1,2-Trichloro-1,2,2-trifluoroethane	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-17-5	1832779-08	t-Amyl Methyl ether	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-17-5	1832779-08	Bromoform	10/22/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-17-5	1832779-08	Dichlorodifluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-17-5	1832779-08	Benzene	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-17-5	1832779-08	Bromobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-17-5	1832779-08	Bromodichloromethane	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-17-5	1832779-08	Bromomethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-17-5	1832779-08	n-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-17-5	1832779-08	sec-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-17-5	1832779-08	tert-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-17-5	1832779-08	Carbon tetrachloride	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-17-5	1832779-08	Chlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-17-5	1832779-08	1,2-Dibromo-3-chloropropane	10/22/2018	1	Y	n	u		1.0	0.89	ug/L
MW-17-5	1832779-08	1,2-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-17-5	1832779-08	Bromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-17-5	1832779-08	Chloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-17-5	1832779-08	Dibromomethane	10/22/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-17-5	1832779-08	1,2-Dibromoethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-17-5	1832779-08	Dibromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-17-5	1832779-08	4-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-17-5	1832779-08	2-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-17-5	1832779-08	Chloromethane	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-17-5	1832779-08	Chloroform	10/22/2018	0.46	Y	y	v j		0.50	0.14	ug/L
MW-3-1	1832779-07	n-Propylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-3-1	1832779-07	Trichlorofluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-1	1832779-07	Tetrachloroethene	10/22/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-3-1	1832779-07	1,1,1,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-3-1	1832779-07	1,1,2,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-3-1	1832779-07	Styrene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-3-1	1832779-07	Toluene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-3-1	1832779-07	1,2,3-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-3-1	1832779-07	1,2,4-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-3-1	1832779-07	1,1,1-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-3-1	1832779-07	Trichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-3-1	1832779-07	Naphthalene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-3-1	1832779-07	1,3-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-3-1	1832779-07	1,1,2-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-3-1	1832779-07	Methyl t-butyl ether	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-1	1832779-07	Methylene chloride	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-3-1	1832779-07	p-Isopropyltoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-1	1832779-07	Isopropylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-1	1832779-07	Hexachlorobutadiene	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-3-1	1832779-07	Ethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-3-1	1832779-07	trans-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-3-1	1832779-07	cis-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-1	1832779-07	1,2,3-Trichloropropane	10/22/2018	1	Y	n	u		1.0	0.78	ug/L
MW-3-1	1832779-07	2,2-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-3-1	1832779-07	Diethyl ether	10/22/2018	2	Y	n	u		2.0	0.33	ug/L
MW-3-1	1832779-07	1,2-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-3-1	1832779-07	trans-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-3-1	1832779-07	1,1-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-3-1	1832779-07	Hexachloroethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
MW-3-1	1832779-07	1,1-Dichloropropanone	10/22/2018	0	Y	y	v				ug/L
MW-3-1	1832779-07	1-Chlorobutane	10/22/2018	0	Y	y	v				ug/L
MW-3-1	1832779-07	Chloroacetonitrile	10/22/2018	0	Y	y	v				ug/L
MW-3-1	1832779-07	o-Xylene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-3-1	1832779-07	p- & m-Xylenes	10/22/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-3-1	1832779-07	Tetrahydrofuran	10/22/2018	20	Y	n	u		20	5.2	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-3-1	1832779-07	Propionitrile	10/22/2018	20	Y	n	u		20	6.2	ug/L
MW-3-1	1832779-07	Pentachloroethane	10/22/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-3-1	1832779-07	Methyl methacrylate	10/22/2018	5	Y	n	u		5.0	1.2	ug/L
MW-3-1	1832779-07	Methyl isobutyl ketone	10/22/2018	10	Y	n	u		10	2.4	ug/L
MW-3-1	1832779-07	Methyl iodide	10/22/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-3-1	1832779-07	Methyl ethyl ketone	10/22/2018	10	Y	n	u		10	3.3	ug/L
MW-3-1	1832779-07	Carbon disulfide	10/22/2018	1	Y	n	u		1.0	0.48	ug/L
MW-3-1	1832779-07	2-Hexanone	10/22/2018	10	Y	n	u		10	5.0	ug/L
MW-3-1	1832779-07	1,1,2-Trichloro-1,2,2-trifluoroethane	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-3-1	1832779-07	Ethyl t-butyl ether	10/22/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
MW-3-1	1832779-07	Ethyl methacrylate	10/22/2018	4	Y	n	u		4.0	1.3	ug/L
MW-3-1	1832779-07	Dibromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-3-1	1832779-07	trans-1,4-Dichloro-2-butene	10/22/2018	5	Y	n	u		5.0	1.8	ug/L
MW-3-1	1832779-07	cis-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-3-1	1832779-07	t-Butyl alcohol	10/22/2018	10	Y	n	u		10	9.4	ug/L
MW-3-1	1832779-07	t-Amyl Methyl ether	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-3-1	1832779-07	Allyl chloride	10/22/2018	5	Y	n	u		5.0	0.47	ug/L
MW-3-1	1832779-07	Acrylonitrile	10/22/2018	5	Y	n	u		5.0	1.5	ug/L
MW-3-1	1832779-07	Acetone	10/22/2018	10	Y	n	u		10	6.6	ug/L
MW-3-1	1832779-07	Vinyl chloride	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-3-1	1832779-07	1,3,5-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-1	1832779-07	1,2,4-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-3-1	1832779-07	Methacrylonitrile	10/22/2018	10	Y	n	u		10	2.3	ug/L
MW-3-1	1832779-07	n-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-3-1	1832779-07	1,1-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-3-1	1832779-07	Nitrobenzene	10/22/2018	0	Y	y	v				ug/L
MW-3-1	1832779-07	Benzene	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-3-1	1832779-07	Bromobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-3-1	1832779-07	Bromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-3-1	1832779-07	Bromodichloromethane	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-3-1	1832779-07	Bromomethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-3-1	1832779-07	2-Nitropropane	10/22/2018	0	Y	y	v				ug/L
MW-3-1	1832779-07	sec-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-3-1	1832779-07	tert-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-3-1	1832779-07	Carbon tetrachloride	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-3-1	1832779-07	Chlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-1	1832779-07	Chloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-3-1	1832779-07	1,1-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-3-1	1832779-07	Bromoform	10/22/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-3-1	1832779-07	1,2-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-3-1	1832779-07	Chloroform	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-1	1832779-07	Dichlorodifluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-3-1	1832779-07	1,4-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-3-1	1832779-07	1,3-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-3-1	1832779-07	1,2-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-3-1	1832779-07	Dibromomethane	10/22/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-3-1	1832779-07	1,2-Dibromoethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-3-1	1832779-07	1,2-Dibromo-3-chloropropane	10/22/2018	1	Y	n	u		1.0	0.89	ug/L
MW-3-1	1832779-07	Methyl acrylate	10/22/2018	0	Y	y	v				ug/L
MW-3-1	1832779-07	4-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.093	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-3-1	1832779-07	2-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-1	1832779-07	Chloromethane	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-3-2	1832779-06	1,2-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-3-2	1832779-06	1,2-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-3-2	1832779-06	1,3-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-3-2	1832779-06	1,4-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-3-2	1832779-06	Dichlorodifluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-3-2	1832779-06	1,1-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-3-2	1832779-06	1,2-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-3-2	1832779-06	Bromoform	10/22/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-3-2	1832779-06	1,1-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-3-2	1832779-06	2,2-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-3-2	1832779-06	trans-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-3-2	1832779-06	Dibromomethane	10/22/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-3-2	1832779-06	1,3-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-3-2	1832779-06	cis-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-3-2	1832779-06	1,2-Dibromoethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-3-2	1832779-06	1,2-Dibromo-3-chloropropane	10/22/2018	1	Y	n	u		1.0	0.89	ug/L
MW-3-2	1832779-06	Dibromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-3-2	1832779-06	4-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-3-2	1832779-06	2-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-2	1832779-06	Chloromethane	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-3-2	1832779-06	Chloroform	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-2	1832779-06	Chloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-3-2	1832779-06	Chlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L



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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-3-2	1832779-06	Carbon tetrachloride	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-3-2	1832779-06	tert-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-3-2	1832779-06	sec-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-3-2	1832779-06	Diethyl ether	10/22/2018	2	Y	n	u		2.0	0.33	ug/L
MW-3-2	1832779-06	Bromomethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-3-2	1832779-06	n-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-3-2	1832779-06	Styrene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-3-2	1832779-06	1,2,4-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-3-2	1832779-06	1,1,2-Trichloro-1,2,2-trifluoroethane	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-3-2	1832779-06	1,2,3-Trichloropropane	10/22/2018	1	Y	n	u		1.0	0.78	ug/L
MW-3-2	1832779-06	Trichlorofluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-2	1832779-06	Trichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-3-2	1832779-06	1,1,2-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-3-2	1832779-06	1,1,1-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-3-2	1832779-06	1,2,4-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-3-2	1832779-06	1,2,3-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-3-2	1832779-06	Toluene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-3-2	1832779-06	Tetrachloroethene	10/22/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-3-2	1832779-06	Benzene	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-3-2	1832779-06	1,1,1,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-3-2	1832779-06	Acetone	10/22/2018	10	Y	n	u		10	6.6	ug/L
MW-3-2	1832779-06	n-Propylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-3-2	1832779-06	Naphthalene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-3-2	1832779-06	Methyl t-butyl ether	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-2	1832779-06	Methylene chloride	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-3-2	1832779-06	p-Isopropyltoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-2	1832779-06	Isopropylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-2	1832779-06	Ethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-3-2	1832779-06	cis-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-2	1832779-06	1,1-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-3-2	1832779-06	Bromodichloromethane	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-3-2	1832779-06	Bromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-3-2	1832779-06	Bromobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-3-2	1832779-06	1,1,2,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-3-2	1832779-06	Methyl iodide	10/22/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-3-2	1832779-06	Carbon disulfide	10/22/2018	1	Y	n	u		1.0	0.48	ug/L
MW-3-2	1832779-06	2-Nitropropane	10/22/2018	0	Y	y	v				ug/L
MW-3-2	1832779-06	Nitrobenzene	10/22/2018	0	Y	y	v				ug/L
MW-3-2	1832779-06	Methyl acrylate	10/22/2018	0	Y	y	v				ug/L
MW-3-2	1832779-06	1,1-Dichloropropanone	10/22/2018	0	Y	y	v				ug/L
MW-3-2	1832779-06	1-Chlorobutane	10/22/2018	0	Y	y	v				ug/L
MW-3-2	1832779-06	Chloroacetonitrile	10/22/2018	0	Y	y	v				ug/L
MW-3-2	1832779-06	o-Xylene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-3-2	1832779-06	p- & m-Xylenes	10/22/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-3-2	1832779-06	Tetrahydrofuran	10/22/2018	20	Y	n	u		20	5.2	ug/L
MW-3-2	1832779-06	Propionitrile	10/22/2018	20	Y	n	u		20	6.2	ug/L
MW-3-2	1832779-06	Pentachloroethane	10/22/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-3-2	1832779-06	1,3,5-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-2	1832779-06	Methyl isobutyl ketone	10/22/2018	10	Y	n	u		10	2.4	ug/L
MW-3-2	1832779-06	Vinyl chloride	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-3-2	1832779-06	Methyl ethyl ketone	10/22/2018	10	Y	n	u		10	3.3	ug/L
MW-3-2	1832779-06	Methacrylonitrile	10/22/2018	10	Y	n	u		10	2.3	ug/L
MW-3-2	1832779-06	2-Hexanone	10/22/2018	10	Y	n	u		10	5.0	ug/L
MW-3-2	1832779-06	Hexachloroethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
MW-3-2	1832779-06	Ethyl t-butyl ether	10/22/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
MW-3-2	1832779-06	Ethyl methacrylate	10/22/2018	4	Y	n	u		4.0	1.3	ug/L
MW-3-2	1832779-06	trans-1,4-Dichloro-2-butene	10/22/2018	5	Y	n	u		5.0	1.8	ug/L
MW-3-2	1832779-06	t-Butyl alcohol	10/22/2018	10	Y	n	u		10	9.4	ug/L
MW-3-2	1832779-06	t-Amyl Methyl ether	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-3-2	1832779-06	Allyl chloride	10/22/2018	5	Y	n	u		5.0	0.47	ug/L
MW-3-2	1832779-06	Acrylonitrile	10/22/2018	5	Y	n	u		5.0	1.5	ug/L
MW-3-2	1832779-06	trans-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-3-2	1832779-06	Methyl methacrylate	10/22/2018	5	Y	n	u		5.0	1.2	ug/L
MW-3-2	1832779-06	Hexachlorobutadiene	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-3-3	1832779-05	cis-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-3	1832779-05	Dichlorodifluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-3-3	1832779-05	1,2,4-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-3-3	1832779-05	1,2-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-3-3	1832779-05	1,1-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-3-3	1832779-05	cis-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-3-3	1832779-05	trans-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-3-3	1832779-05	1,2-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-3-3	1832779-05	1,3-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-3-3	1832779-05	Styrene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-3-3	1832779-05	1,1-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-3-3	1832779-05	trans-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-3-3	1832779-05	Ethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-3-3	1832779-05	Hexachlorobutadiene	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-3-3	1832779-05	Isopropylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-3	1832779-05	p-Isopropyltoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-3	1832779-05	Methylene chloride	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-3-3	1832779-05	Methyl t-butyl ether	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-3	1832779-05	Naphthalene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-3-3	1832779-05	n-Propylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-3-3	1832779-05	2,2-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-3-3	1832779-05	Chloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-3-3	1832779-05	Benzene	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-3-3	1832779-05	Bromobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-3-3	1832779-05	Bromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-3-3	1832779-05	Bromodichloromethane	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-3-3	1832779-05	Bromoform	10/22/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-3-3	1832779-05	Bromomethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-3-3	1832779-05	n-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-3-3	1832779-05	sec-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-3-3	1832779-05	tert-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-3-3	1832779-05	1,3-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-3-3	1832779-05	Chlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-3	1832779-05	1,2-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-3-3	1832779-05	Chloroform	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-3	1832779-05	Chloromethane	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-3-3	1832779-05	2-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-3	1832779-05	4-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-3-3	1832779-05	Dibromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-3-3	1832779-05	1,2-Dibromo-3-chloropropane	10/22/2018	1	Y	n	u		1.0	0.89	ug/L
MW-3-3	1832779-05	1,2-Dibromoethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-3-3	1832779-05	Dibromomethane	10/22/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-3-3	1832779-05	1,1-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-3-3	1832779-05	Carbon tetrachloride	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-3-3	1832779-05	Diethyl ether	10/22/2018	2	Y	n	u		2.0	0.33	ug/L
MW-3-3	1832779-05	Propionitrile	10/22/2018	20	Y	n	u		20	6.2	ug/L
MW-3-3	1832779-05	Pentachloroethane	10/22/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-3-3	1832779-05	Methyl methacrylate	10/22/2018	5	Y	n	u		5.0	1.2	ug/L
MW-3-3	1832779-05	Methyl isobutyl ketone	10/22/2018	10	Y	n	u		10	2.4	ug/L
MW-3-3	1832779-05	Methyl iodide	10/22/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-3-3	1832779-05	Methyl ethyl ketone	10/22/2018	10	Y	n	u		10	3.3	ug/L
MW-3-3	1832779-05	Methacrylonitrile	10/22/2018	10	Y	n	u		10	2.3	ug/L
MW-3-3	1832779-05	2-Hexanone	10/22/2018	10	Y	n	u		10	5.0	ug/L
MW-3-3	1832779-05	Hexachloroethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
MW-3-3	1832779-05	Tetrahydrofuran	10/22/2018	20	Y	n	u		20	5.2	ug/L
MW-3-3	1832779-05	Ethyl methacrylate	10/22/2018	4	Y	n	u		4.0	1.3	ug/L
MW-3-3	1832779-05	Acetone	10/22/2018	10	Y	n	u		10	6.6	ug/L
MW-3-3	1832779-05	trans-1,4-Dichloro-2-butene	10/22/2018	5	Y	n	u		5.0	1.8	ug/L
MW-3-3	1832779-05	Carbon disulfide	10/22/2018	1	Y	n	u		1.0	0.48	ug/L
MW-3-3	1832779-05	t-Butyl alcohol	10/22/2018	10	Y	n	u		10	9.4	ug/L
MW-3-3	1832779-05	t-Amyl Methyl ether	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-3-3	1832779-05	Allyl chloride	10/22/2018	5	Y	n	u		5.0	0.47	ug/L
MW-3-3	1832779-05	Acrylonitrile	10/22/2018	5	Y	n	u		5.0	1.5	ug/L
MW-3-3	1832779-05	1,1,1,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-3-3	1832779-05	Vinyl chloride	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-3-3	1832779-05	1,4-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-3-3	1832779-05	1,3,5-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-3	1832779-05	Ethyl t-butyl ether	10/22/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
MW-3-3	1832779-05	Toluene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-3-3	1832779-05	1,1,2,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-3-3	1832779-05	Tetrachloroethene	10/22/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-3-3	1832779-05	1,2,3-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-3-3	1832779-05	1,2,4-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-3-3	1832779-05	1,1,1-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-3-3	1832779-05	1,1,2-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-3-3	1832779-05	Trichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-3-3	1832779-05	Trichlorofluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-3	1832779-05	1,2,3-Trichloropropane	10/22/2018	1	Y	n	u		1.0	0.78	ug/L
MW-3-3	1832779-05	Chloroacetonitrile	10/22/2018	0	Y	y	v				ug/L
MW-3-3	1832779-05	1,1,2-Trichloro-1,2,2-trifluoroethane	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-3-3	1832779-05	p- & m-Xylenes	10/22/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-3-3	1832779-05	o-Xylene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-3-3	1832779-05	1-Chlorobutane	10/22/2018	0	Y	y	v				ug/L
MW-3-3	1832779-05	1,1-Dichloropropanone	10/22/2018	0	Y	y	v				ug/L
MW-3-3	1832779-05	Methyl acrylate	10/22/2018	0	Y	y	v				ug/L
MW-3-3	1832779-05	Nitrobenzene	10/22/2018	0	Y	y	v				ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-3-3	1832779-05	2-Nitropropane	10/22/2018	0	Y	y	v				ug/L
MW-3-4	1832779-03	1,2-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-3-4	1832779-03	1,1-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-3-4	1832779-03	Methyl t-butyl ether	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-4	1832779-03	Ethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-3-4	1832779-03	trans-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-3-4	1832779-03	1,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-3-4	1832779-03	1,1-Dichloroethane	10/21/2018	0.16	Y	y	v j		0.50	0.15	ug/L
MW-3-4	1832779-03	2,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-3-4	1832779-03	cis-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-4	1832779-03	trans-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-3-4	1832779-03	cis-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-3-4	1832779-03	Hexachlorobutadiene	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-3-4	1832779-03	Isopropylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-4	1832779-03	Styrene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-3-4	1832779-03	Methylene chloride	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-3-4	1832779-03	Naphthalene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-3-4	1832779-03	n-Propylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-3-4	1832779-03	Dichlorodifluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-3-4	1832779-03	Chloromethane	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-3-4	1832779-03	1,1,1,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-3-4	1832779-03	1,1,2,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-3-4	1832779-03	Tetrachloroethene	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-3-4	1832779-03	p-Isopropyltoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-4	1832779-03	Chloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-3-4	1832779-03	Benzene	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-3-4	1832779-03	1,1-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-3-4	1832779-03	Toluene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-3-4	1832779-03	Bromobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-3-4	1832779-03	Bromoform	10/21/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-3-4	1832779-03	Bromomethane	10/21/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-3-4	1832779-03	n-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-3-4	1832779-03	sec-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-3-4	1832779-03	tert-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-3-4	1832779-03	4-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-3-4	1832779-03	Chlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-4	1832779-03	1,4-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-3-4	1832779-03	Chloroform	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-4	1832779-03	Bromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-3-4	1832779-03	2-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-4	1832779-03	Bromodichloromethane	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-3-4	1832779-03	Dibromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-3-4	1832779-03	1,2-Dibromo-3-chloropropane	10/21/2018	1	Y	n	u		1.0	0.89	ug/L
MW-3-4	1832779-03	1,2-Dibromoethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-3-4	1832779-03	Dibromomethane	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-3-4	1832779-03	1,2-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-3-4	1832779-03	1,3-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-3-4	1832779-03	Carbon tetrachloride	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-3-4	1832779-03	p- & m-Xylenes	10/21/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-3-4	1832779-03	Hexachloroethane	10/21/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L



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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-3-4	1832779-03	2-Hexanone	10/21/2018	10	Y	n	u		10	5.0	ug/L
MW-3-4	1832779-03	Methacrylonitrile	10/21/2018	10	Y	n	u		10	2.3	ug/L
MW-3-4	1832779-03	Methyl ethyl ketone	10/21/2018	10	Y	n	u		10	3.3	ug/L
MW-3-4	1832779-03	Methyl iodide	10/21/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-3-4	1832779-03	Methyl isobutyl ketone	10/21/2018	10	Y	n	u		10	2.4	ug/L
MW-3-4	1832779-03	Methyl methacrylate	10/21/2018	5	Y	n	u		5.0	1.2	ug/L
MW-3-4	1832779-03	Ethyl t-butyl ether	10/21/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
MW-3-4	1832779-03	Propionitrile	10/21/2018	20	Y	n	u		20	6.2	ug/L
MW-3-4	1832779-03	Tetrahydrofuran	10/21/2018	20	Y	n	u		20	5.2	ug/L
MW-3-4	1832779-03	1,3-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-3-4	1832779-03	Chloroacetonitrile	10/21/2018	0	Y	y	v				ug/L
MW-3-4	1832779-03	1-Chlorobutane	10/21/2018	0	Y	y	v				ug/L
MW-3-4	1832779-03	1,1-Dichloropropanone	10/21/2018	0	Y	y	v				ug/L
MW-3-4	1832779-03	Methyl acrylate	10/21/2018	0	Y	y	v				ug/L
MW-3-4	1832779-03	Nitrobenzene	10/21/2018	0	Y	y	v				ug/L
MW-3-4	1832779-03	2-Nitropropane	10/21/2018	0	Y	y	v				ug/L
MW-3-4	1832779-03	1,2,3-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-3-4	1832779-03	Pentachloroethane	10/21/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-3-4	1832779-03	1,1,2-Trichloro-1,2,2-trifluoroethane	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-3-4	1832779-03	o-Xylene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-3-4	1832779-03	Ethyl methacrylate	10/21/2018	4	Y	n	u		4.0	1.3	ug/L
MW-3-4	1832779-03	1,1,1-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-3-4	1832779-03	1,1,2-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-3-4	1832779-03	Trichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-3-4	1832779-03	1,2,3-Trichloropropane	10/21/2018	1	Y	n	u		1.0	0.78	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-3-4	1832779-03	1,2,4-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-3-4	1832779-03	1,3,5-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-4	1832779-03	1,2,4-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-3-4	1832779-03	Carbon disulfide	10/21/2018	1	Y	n	u		1.0	0.48	ug/L
MW-3-4	1832779-03	Diethyl ether	10/21/2018	2	Y	n	u		2.0	0.33	ug/L
MW-3-4	1832779-03	Trichlorofluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-4	1832779-03	trans-1,4-Dichloro-2-butene	10/21/2018	5	Y	n	u		5.0	1.8	ug/L
MW-3-4	1832779-03	Vinyl chloride	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-3-4	1832779-03	t-Butyl alcohol	10/21/2018	10	Y	n	u		10	9.4	ug/L
MW-3-4	1832779-03	t-Amyl Methyl ether	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-3-4	1832779-03	Allyl chloride	10/21/2018	5	Y	n	u		5.0	0.47	ug/L
MW-3-4	1832779-03	Acrylonitrile	10/21/2018	5	Y	n	u		5.0	1.5	ug/L
MW-3-4	1832779-03	Acetone	10/21/2018	10	Y	n	u		10	6.6	ug/L
MW-3-5	1832779-02	Ethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-3-5	1832779-02	1,2-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-3-5	1832779-02	Tetrachloroethene	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-3-5	1832779-02	trans-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-3-5	1832779-02	1,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-3-5	1832779-02	1,3-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-3-5	1832779-02	2,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-3-5	1832779-02	1,1-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-3-5	1832779-02	cis-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-5	1832779-02	trans-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-3-5	1832779-02	cis-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-3-5	1832779-02	Hexachlorobutadiene	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L

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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-3-5	1832779-02	Isopropylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-5	1832779-02	p-Isopropyltoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-5	1832779-02	Methylene chloride	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-3-5	1832779-02	Methyl t-butyl ether	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-5	1832779-02	Naphthalene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-3-5	1832779-02	n-Propylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-3-5	1832779-02	Styrene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-3-5	1832779-02	1,1,2,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-3-5	1832779-02	Toluene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-3-5	1832779-02	Bromoform	10/21/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-3-5	1832779-02	1,2,3-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-3-5	1832779-02	1,1,1,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-3-5	1832779-02	Chloroform	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-5	1832779-02	Benzene	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-3-5	1832779-02	Bromobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-3-5	1832779-02	Bromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-3-5	1832779-02	Bromodichloromethane	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-3-5	1832779-02	1,1-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-3-5	1832779-02	Bromomethane	10/21/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-3-5	1832779-02	1,2,4-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-3-5	1832779-02	sec-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-3-5	1832779-02	tert-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-3-5	1832779-02	Carbon tetrachloride	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-3-5	1832779-02	n-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-3-5	1832779-02	Chloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-3-5	1832779-02	Dichlorodifluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-3-5	1832779-02	Chloromethane	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-3-5	1832779-02	2-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-5	1832779-02	4-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-3-5	1832779-02	Dibromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-3-5	1832779-02	1,2-Dibromo-3-chloropropane	10/21/2018	1	Y	n	u		1.0	0.89	ug/L
MW-3-5	1832779-02	1,2-Dibromoethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-3-5	1832779-02	Dibromomethane	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-3-5	1832779-02	1,2-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-3-5	1832779-02	1,3-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-3-5	1832779-02	1,4-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-3-5	1832779-02	Chlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-5	1832779-02	o-Xylene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-3-5	1832779-02	2-Hexanone	10/21/2018	10	Y	n	u		10	5.0	ug/L
MW-3-5	1832779-02	Methacrylonitrile	10/21/2018	10	Y	n	u		10	2.3	ug/L
MW-3-5	1832779-02	Methyl ethyl ketone	10/21/2018	10	Y	n	u		10	3.3	ug/L
MW-3-5	1832779-02	Methyl iodide	10/21/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-3-5	1832779-02	Methyl isobutyl ketone	10/21/2018	10	Y	n	u		10	2.4	ug/L
MW-3-5	1832779-02	Methyl methacrylate	10/21/2018	5	Y	n	u		5.0	1.2	ug/L
MW-3-5	1832779-02	Pentachloroethane	10/21/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-3-5	1832779-02	Hexachloroethane	10/21/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
MW-3-5	1832779-02	Tetrahydrofuran	10/21/2018	20	Y	n	u		20	5.2	ug/L
MW-3-5	1832779-02	p- & m-Xylenes	10/21/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-3-5	1832779-02	1-Chlorobutane	10/21/2018	0	Y	y	v				ug/L
MW-3-5	1832779-02	1,1-Dichloropropanone	10/21/2018	0	Y	y	v				ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-3-5	1832779-02	Methyl acrylate	10/21/2018	0	Y	y	v				ug/L
MW-3-5	1832779-02	Nitrobenzene	10/21/2018	0	Y	y	v				ug/L
MW-3-5	1832779-02	2-Nitropropane	10/21/2018	0	Y	y	v				ug/L
MW-3-5	1832779-02	1,1-Dichloroethane	10/21/2018	0.15	Y	y	v j		0.50	0.15	ug/L
MW-3-5	1832779-02	1,1,1-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-3-5	1832779-02	Propionitrile	10/21/2018	20	Y	n	u		20	6.2	ug/L
MW-3-5	1832779-02	1,3,5-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-5	1832779-02	Trichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-3-5	1832779-02	Chloroacetonitrile	10/21/2018	0	Y	y	v				ug/L
MW-3-5	1832779-02	1,1,2-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-3-5	1832779-02	Ethyl t-butyl ether	10/21/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
MW-3-5	1832779-02	Trichlorofluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-3-5	1832779-02	1,2,3-Trichloropropane	10/21/2018	1	Y	n	u		1.0	0.78	ug/L
MW-3-5	1832779-02	1,2,4-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-3-5	1832779-02	Vinyl chloride	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-3-5	1832779-02	Carbon disulfide	10/21/2018	1	Y	n	u		1.0	0.48	ug/L
MW-3-5	1832779-02	Acrylonitrile	10/21/2018	5	Y	n	u		5.0	1.5	ug/L
MW-3-5	1832779-02	Allyl chloride	10/21/2018	5	Y	n	u		5.0	0.47	ug/L
MW-3-5	1832779-02	Ethyl methacrylate	10/21/2018	4	Y	n	u		4.0	1.3	ug/L
MW-3-5	1832779-02	t-Amyl Methyl ether	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-3-5	1832779-02	t-Butyl alcohol	10/21/2018	10	Y	n	u		10	9.4	ug/L
MW-3-5	1832779-02	Acetone	10/21/2018	10	Y	n	u		10	6.6	ug/L
MW-3-5	1832779-02	1,1,2-Trichloro-1,2,2-trifluoroethane	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-3-5	1832779-02	trans-1,4-Dichloro-2-butene	10/21/2018	5	Y	n	u		5.0	1.8	ug/L
MW-3-5	1832779-02	Diethyl ether	10/21/2018	2	Y	n	u		2.0	0.33	ug/L

SDG: 1832779

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
TB-3-101718	1832779-01	trans-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
TB-3-101718	1832779-01	cis-1,3-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-3-101718	1832779-01	1,1-Dichloropropene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
TB-3-101718	1832779-01	2,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
TB-3-101718	1832779-01	1,2-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-3-101718	1832779-01	Ethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-3-101718	1832779-01	1,1,2,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-3-101718	1832779-01	trans-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-3-101718	1832779-01	cis-1,2-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
TB-3-101718	1832779-01	1,3-Dichloropropane	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
TB-3-101718	1832779-01	Hexachlorobutadiene	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
TB-3-101718	1832779-01	Isopropylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-3-101718	1832779-01	p-Isopropyltoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-3-101718	1832779-01	Methylene chloride	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
TB-3-101718	1832779-01	Methyl t-butyl ether	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-3-101718	1832779-01	Naphthalene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
TB-3-101718	1832779-01	n-Propylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
TB-3-101718	1832779-01	1,1,1,2-Tetrachloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
TB-3-101718	1832779-01	Tetrachloroethene	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
TB-3-101718	1832779-01	Toluene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-3-101718	1832779-01	1,1-Dichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
TB-3-101718	1832779-01	n-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-3-101718	1832779-01	Styrene	10/21/2018	0.5	Y	n	u		0.50	0.12	ug/L
TB-3-101718	1832779-01	Chloromethane	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
TB-3-101718	1832779-01	Bromobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L

SDG: 1832779

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
TB-3-101718	1832779-01	Bromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.27	ug/L
TB-3-101718	1832779-01	Bromodichloromethane	10/21/2018	0.5	Y	n	u		0.50	0.20	ug/L
TB-3-101718	1832779-01	Bromoform	10/21/2018	0.5	Y	n	u		0.50	0.46	ug/L
TB-3-101718	1832779-01	Bromomethane	10/21/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
TB-3-101718	1832779-01	Hexachloroethane	10/21/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
TB-3-101718	1832779-01	sec-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L
TB-3-101718	1832779-01	1,2,3-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
TB-3-101718	1832779-01	Carbon tetrachloride	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-3-101718	1832779-01	Chlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-3-101718	1832779-01	tert-Butylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
TB-3-101718	1832779-01	Chloroform	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-3-101718	1832779-01	1,2-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-3-101718	1832779-01	2-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-3-101718	1832779-01	4-Chlorotoluene	10/21/2018	0.5	Y	n	u		0.50	0.093	ug/L
TB-3-101718	1832779-01	Dibromochloromethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
TB-3-101718	1832779-01	1,2-Dibromo-3-chloropropane	10/21/2018	1	Y	n	u		1.0	0.89	ug/L
TB-3-101718	1832779-01	1,2-Dibromoethane	10/21/2018	0.5	Y	n	u		0.50	0.22	ug/L
TB-3-101718	1832779-01	Dibromomethane	10/21/2018	0.5	Y	n	u		0.50	0.23	ug/L
TB-3-101718	1832779-01	1,2-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
TB-3-101718	1832779-01	1,3-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.16	ug/L
TB-3-101718	1832779-01	1,4-Dichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-3-101718	1832779-01	Dichlorodifluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-3-101718	1832779-01	1,1-Dichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-3-101718	1832779-01	Chloroethane	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-3-101718	1832779-01	o-Xylene	10/21/2018	0.5	Y	n	u		0.50	0.13	ug/L

SDG: 1832779

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
TB-3-101718	1832779-01	Methacrylonitrile	10/21/2018	10	Y	n	u		10	2.3	ug/L
TB-3-101718	1832779-01	Methyl ethyl ketone	10/21/2018	10	Y	n	u		10	3.3	ug/L
TB-3-101718	1832779-01	Methyl iodide	10/21/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
TB-3-101718	1832779-01	Methyl isobutyl ketone	10/21/2018	10	Y	n	u		10	2.4	ug/L
TB-3-101718	1832779-01	1,2,4-Trichlorobenzene	10/21/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-3-101718	1832779-01	Pentachloroethane	10/21/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
TB-3-101718	1832779-01	Ethyl methacrylate	10/21/2018	4	Y	n	u		4.0	1.3	ug/L
TB-3-101718	1832779-01	2-Hexanone	10/21/2018	10	Y	n	u		10	5.0	ug/L
TB-3-101718	1832779-01	p- & m-Xylenes	10/21/2018	0.5	Y	n	u		0.50	0.34	ug/L
TB-3-101718	1832779-01	Methyl methacrylate	10/21/2018	5	Y	n	u		5.0	1.2	ug/L
TB-3-101718	1832779-01	Chloroacetonitrile	10/21/2018	0	Y	y	v				ug/L
TB-3-101718	1832779-01	1-Chlorobutane	10/21/2018	0	Y	y	v				ug/L
TB-3-101718	1832779-01	1,1-Dichloropropanone	10/21/2018	0	Y	y	v				ug/L
TB-3-101718	1832779-01	Methyl acrylate	10/21/2018	0	Y	y	v				ug/L
TB-3-101718	1832779-01	Nitrobenzene	10/21/2018	0	Y	y	v				ug/L
TB-3-101718	1832779-01	2-Nitropropane	10/21/2018	0	Y	y	v				ug/L
TB-3-101718	1832779-01	Benzene	10/21/2018	0.5	Y	n	u		0.50	0.11	ug/L
TB-3-101718	1832779-01	Tetrahydrofuran	10/21/2018	20	Y	n	u		20	5.2	ug/L
TB-3-101718	1832779-01	Trichlorofluoromethane	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-3-101718	1832779-01	1,1,1-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
TB-3-101718	1832779-01	Propionitrile	10/21/2018	20	Y	n	u		20	6.2	ug/L
TB-3-101718	1832779-01	Trichloroethene	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
TB-3-101718	1832779-01	Ethyl t-butyl ether	10/21/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
TB-3-101718	1832779-01	1,2,3-Trichloropropane	10/21/2018	1	Y	n	u		1.0	0.78	ug/L
TB-3-101718	1832779-01	1,1,2-Trichloro-1,2,2-trifluoroethane	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L



SDG: 1832779

<b>Analytical Method</b>		EPA-524.2									
<b>Sample ID</b>	<b>Lab Sample ID</b>	<b>Chemical Name</b>	<b>Anal Date</b>	<b>Result</b>	<b>Report</b>	<b>Detect</b>	<b>Lab Qual</b>	<b>Val Qual</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
TB-3-101718	1832779-01	1,2,4-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-3-101718	1832779-01	1,3,5-Trimethylbenzene	10/21/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-3-101718	1832779-01	trans-1,4-Dichloro-2-butene	10/21/2018	5	Y	n	u		5.0	1.8	ug/L
TB-3-101718	1832779-01	Acetone	10/21/2018	10	Y	n	u		10	6.6	ug/L
TB-3-101718	1832779-01	Acrylonitrile	10/21/2018	5	Y	n	u		5.0	1.5	ug/L
TB-3-101718	1832779-01	Allyl chloride	10/21/2018	5	Y	n	u		5.0	0.47	ug/L
TB-3-101718	1832779-01	t-Amyl Methyl ether	10/21/2018	0.5	Y	n	u		0.50	0.19	ug/L
TB-3-101718	1832779-01	t-Butyl alcohol	10/21/2018	10	Y	n	u		10	9.4	ug/L
TB-3-101718	1832779-01	Carbon disulfide	10/21/2018	1	Y	n	u		1.0	0.48	ug/L
TB-3-101718	1832779-01	1,1,2-Trichloroethane	10/21/2018	0.5	Y	n	u		0.50	0.21	ug/L
TB-3-101718	1832779-01	Vinyl chloride	10/21/2018	0.5	Y	n	u		0.50	0.18	ug/L
TB-3-101718	1832779-01	Diethyl ether	10/21/2018	2	Y	n	u		2.0	0.33	ug/L

<b>Analytical Method</b>		EPA-7196									
<b>Sample ID</b>	<b>Lab Sample ID</b>	<b>Chemical Name</b>	<b>Anal Date</b>	<b>Result</b>	<b>Report</b>	<b>Detect</b>	<b>Lab Qual</b>	<b>Val Qual</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
DUP-2-4Q18	1832779-04	Hexavalent Chromium	10/17/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
DUP-3-4Q18	1832779-12	Hexavalent Chromium	10/17/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
EB-3-101718	1832779-13	Hexavalent Chromium	10/17/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
MW-17-2	1832779-11	Hexavalent Chromium	10/17/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
MW-17-3	1832779-10	Hexavalent Chromium	10/17/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
MW-17-4	1832779-09	Hexavalent Chromium	10/17/2018	0.0024	Y	y	v		0.0020	0.0007	mg/L
MW-17-5	1832779-08	Hexavalent Chromium	10/17/2018	0.0017	Y	y	v j		0.0020	0.0007	mg/L
MW-3-1	1832779-07	Hexavalent Chromium	10/17/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
MW-3-2	1832779-06	Hexavalent Chromium	10/17/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
MW-3-3	1832779-05	Hexavalent Chromium	10/17/2018	#####	Y	y	v j		0.0020	0.0007	mg/L

SDG: 1832779

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<b>Analytical Method</b>											
EPA-7196											
<b>Sample ID</b>	<b>Lab Sample ID</b>	<b>Chemical Name</b>	<b>Anal Date</b>	<b>Result</b>	<b>Report</b>	<b>Detect</b>	<b>Lab Qual</b>	<b>Val Qual</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
MW-3-4	1832779-03	Hexavalent Chromium	10/17/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
MW-3-5	1832779-02	Hexavalent Chromium	10/17/2018	0.002	Y	n	u		0.0020	0.0007	mg/L

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** NASA JPL, 4Q2018

**LDC Report Date:** December 14, 2018

**Parameters:** Volatiles

**Validation Level:** Level III & IV

**Laboratory:** BC Laboratories, Inc.

**Sample Delivery Group (SDG):** 1832950

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
TB-4-101818	1832950-01	Water	10/18/18
MW-22-5	1832950-02	Water	10/18/18
MW-22-4	1832950-03	Water	10/18/18
MW-22-3**	1832950-04**	Water	10/18/18
MW-22-2	1832950-05	Water	10/18/18
MW-22-1	1832950-06	Water	10/18/18
MW-24-5	1832950-07	Water	10/18/18
MW-24-4	1832950-08	Water	10/18/18
MW-24-3	1832950-09	Water	10/18/18
MW-24-2	1832950-10	Water	10/18/18
MW-24-1	1832950-11	Water	10/18/18
EB-4-101818	1832950-12	Water	10/18/18

\*\*Indicates sample underwent Level IV review

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) Method 524.2

All sample results were subjected to Level III data validation, which comprises an evaluation of quality control (QC) summary results. Samples appended with a double asterisk on the cover page were subjected to Level IV evaluation, which is comprised of the QC summary forms as well as the raw data, to confirm sample quantitation and identification.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated due to non-conformances discovered during data validation.
- U (Non-detected): The compound or analyte was analyzed for and positively identified by the laboratory; however the compound or analyte should be considered non-detected at the reported concentration due to the presence of contaminants detected in the associated blank(s).
- UJ (Non-detected estimated): The compound or analyte was reported as not detected by the laboratory; however the reported quantitation/detection limit is estimated due to non-conformances discovered during data validation.
- R (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

### **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

### **II. GC/MS Instrument Performance Check**

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

### **III. Initial Calibration and Initial Calibration Verification**

An initial calibration was performed as required by the method.

For compounds where average relative response factors (RRFs) were utilized, the percent relative standard deviations (%RSD) were less than or equal to 20.0%

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination ( $r^2$ ) were greater than or equal to 0.990.

Average relative response factors (RRF) for all compounds were within validation criteria.

The percent differences (%D) of the initial calibration verification (ICV) standard were less than or equal to 30.0% for all compounds with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
10/14/18	Pentachloroethane	36.1	All samples in SDG 1832950	UJ (all non-detects)	P

### **IV. Continuing Calibration**

Continuing calibration was performed at the required frequencies.

The percent differences (%D) were less than or equal to 30.0% for all compounds with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
12/21/18	Bromomethane	58.2	TB-4-101818	UJ (all non-detects)	P
	Hexachloroethane	38.2	MW-22-5	UJ (all non-detects)	
	Ethyl tert-butyl ether	32.6	MW-22-4	UJ (all non-detects)	
	Methyl iodide	69.5	MW-22-3**	UJ (all non-detects)	
	Pentachloroethane	84.7		UJ (all non-detects)	
10/22/18	Bromomethane	67.2	MW-22-2	UJ (all non-detects)	P
	2,2-Dichloropropane	32.8	MW-22-1	UJ (all non-detects)	
	Hexachloroethane	36.1	MW-24-5	UJ (all non-detects)	
	Ethyl tert-butyl ether	32.8	MW-24-4	UJ (all non-detects)	
	Methyl iodide	63.9	MW-24-3	UJ (all non-detects)	
	Pentachloroethane	119	MW-24-2	UJ (all non-detects)	
			MW-24-1		
		EB-4-101818			

## V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## VI. Field Blanks

Sample TB-4-101818 was identified as a trip blank. No contaminants were found.

Sample EB-4-101818 was identified as an equipment blank. No contaminants were found.

## VII. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## VIII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## IX. Laboratory Control Samples

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## X. Field Duplicates

No field duplicates were identified in this SDG.

## **XI. Internal Standards**

All internal standard areas and retention times were within QC limits.

## **XII. Compound Quantitation**

All compound quantitations met validation criteria for samples which underwent Level IV validation. Raw data were not reviewed for Level III validation.

## **XIII. Target Compound Identifications**

All target compound identifications met validation criteria for samples which underwent Level IV validation. Raw data were not reviewed for Level III validation.

## **XIV. System Performance**

The system performance was acceptable for samples which underwent Level IV validation. Raw data were not reviewed for Level III validation.

## **XV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to ICV and continuing calibration %D, data were qualified as estimated in twelve samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the data validation all other results are considered valid and usable for all purposes.

**NASA JPL, 4Q2018**

**Volatiles - Data Qualification Summary - SDG 1832950**

Sample	Compound	Flag	A or P	Reason
TB-4-101818 MW-22-5 MW-22-4 MW-22-3** MW-22-2 MW-22-1 MW-24-5 MW-24-4 MW-24-3 MW-24-2 MW-24-1 EB-4-101818	Pentachloroethane	UJ (all non-detects)	P	Initial calibration verification (%D)
TB-4-101818 MW-22-5 MW-22-4 MW-22-3**	Bromomethane Hexachloroethane Ethyl tert-butyl ether Methyl iodide Pentachloroethane	UJ (all non-detects) UJ (all non-detects) UJ (all non-detects) UJ (all non-detects) UJ (all non-detects)	P	Continuing calibration (%D)
MW-22-2 MW-22-1 MW-24-5 MW-24-4 MW-24-3 MW-24-2 MW-24-1 EB-4-101818	Bromomethane 2,2-Dichloropropane Hexachloroethane Ethyl tert-butyl ether Methyl iodide Pentachloroethane	UJ (all non-detects) UJ (all non-detects) UJ (all non-detects) UJ (all non-detects) UJ (all non-detects) UJ (all non-detects)	P	Continuing calibration (%D)

**NASA JPL, 4Q2018**

**Volatiles - Laboratory Blank Data Qualification Summary - SDG 1832950**

No Sample Data Qualified in this SDG



LDC #: 43751B1

## VALIDATION COMPLETENESS WORKSHEET

SDG #: 1832950

Level III/IV

Laboratory: BC Laboratories, Inc.

Date: 12/19/18

Page: 1 of 1

Reviewer: [Signature]

2nd Reviewer: [Signature]

METHOD: GC/MS Volatiles (EPA Method 524.2)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A	
II.	GC/MS Instrument performance check	A	
III.	Initial calibration/ICV	A, MW	RSO = 20%. Y <sup>2</sup> ICV = 30%
IV.	Continuing calibration	MW	CCV = 30%
V.	Laboratory Blanks	A	
VI.	Field blanks	ND	TB=1, EB=12
VII.	Surrogate spikes	A	
VIII.	Matrix spike/Matrix spike duplicates	N	CS
IX.	Laboratory control samples	A	LCS
X.	Field duplicates	N	
XI.	Internal standards	A	
XII.	Compound quantitation RL/LOQ/LODs	A	Not reviewed for Level III validation
XIII.	Target compound identification	A	Not reviewed for Level III validation
XIV.	System performance	A	Not reviewed for Level III validation
XV.	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB = Source blank  
OTHER:

\*\* Indicates sample underwent Level IV validation

	Client ID	Lab ID	Matrix	Date
1	TB-4-101818	1832950-01	Water	10/18/18
2	MW-22-5	1832950-02	Water	10/18/18
3	MW-22-4	1832950-03	Water	10/18/18
4	MW-22-3**	1832950-04**	Water	10/18/18
5	MW-22-2	1832950-05	Water	10/18/18
6	MW-22-1	1832950-06	Water	10/18/18
7	MW-24-5	1832950-07	Water	10/18/18
8	MW-24-4	1832950-08	Water	10/18/18
9	MW-24-3	1832950-09	Water	10/18/18
10	MW-24-2	1832950-10	Water	10/18/18
11	MW-24-1	1832950-11	Water	10/18/18
12	EB-4-101818	1832950-12	Water	10/18/18
13				

**Method:** Volatiles (EPA Method 524.2)

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times:</b>				
Were all technical holding times met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was cooler temperature criteria met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. GC/MS Instrument performance check:</b>				
Was a tune check performed prior to establishing and/or re-establishing an initial calibration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the BFB performance results reviewed and found to be within the specified criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>III. Initial calibration:</b>				
Did the laboratory perform at least 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) $\leq$ 20%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IIIa. Initial Calibration Verification:</b>				
Was an initial calibration verification standard analyzed after each initial calibration for each instrument?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) $<$ 30%?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Continuing calibration:</b>				
Was a continuing calibration standard analyzed at the beginning of each analysis batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) of continuing calibration $<$ 30%?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>V. Laboratory Blanks</b>				
Was a laboratory blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a laboratory blank analyzed with each analysis batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the laboratory blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VI. Field blanks</b>				
Field blanks were identified in this SDG.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field blanks.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VII. Surrogate spikes</b>				
Were all surrogate %R within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VIII. Matrix spike/Matrix spike duplicates</b>				
Was a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for this SDG?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>IX. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

VALIDATION FINDINGS CHECKLIST

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per analytical batch?	/			
Were the LCS percent recoveries (%R) within 70-130%?	/			
<b>X. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.		/		
Target compounds were detected in the field duplicates.			/	
<b>XI. Internal standards</b>				
Were internal standard area counts within +/-30% of the area of the most recent continuing calibration standard and +/-50% of the average peak area in the initial calibration?	/			
Were retention times within +/-30 seconds of the associated calibration standard?	/			
<b>XII. Compound quantitation/CRQLs</b>				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) or regression equations used to quantitate the compound?	/			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	/			
<b>XIII. Target compound identification</b>				
Were relative retention times (RRT's) within + 0.06 RRT units of the standard?	/			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	/			
Were chromatogram peaks verified and accounted for?	/			
<b>XIV. System performance</b>				
System performance was found to be acceptable.	/			
<b>XV. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	/			

## TARGET COMPOUND WORKSHEET

### METHOD: VOA

A. Chloromethane	AA. Tetrachloroethene	AAA. 1,3,5-Trimethylbenzene	AAAA. Ethyl tert-butyl ether	A1. 1,3-Butadiene
B. Bromomethane	BB. 1,1,2,2-Tetrachloroethane	BBB. 4-Chlorotoluene	BBBB. tert-Amyl methyl ether	B1. Hexane
C. Vinyl chloride	CC. Toluene	CCC. tert-Butylbenzene	CCCC. 1-Chlorohexane	C1. Heptane
D. Chloroethane	DD. Chlorobenzene	DDD. 1,2,4-Trimethylbenzene	DDDD. Isopropyl alcohol	D1. Propylene
E. Methylene chloride	EE. Ethylbenzene	EEE. sec-Butylbenzene	EEEE. Acetonitrile	E1. Freon 11
F. Acetone	FF. Styrene	FFF. 1,3-Dichlorobenzene	FFFF. Acrolein	F1. Freon 12
G. Carbon disulfide	GG. Xylenes, total	GGG. p-Isopropyltoluene	GGGG. Acrylonitrile	G1. Freon 113
H. 1,1-Dichloroethene	HH. Vinyl acetate	HHH. 1,4-Dichlorobenzene	HHHH. 1,4-Dioxane	H1. Freon 114
I. 1,1-Dichloroethane	II. 2-Chloroethylvinyl ether	III. n-Butylbenzene	IIII. Isobutyl alcohol	I1. 2-Nitropropane
J. 1,2-Dichloroethene, total	JJ. Dichlorodifluoromethane	JJJ. 1,2-Dichlorobenzene	JJJJ. Methacrylonitrile	J1. Dimethyl disulfide
K. Chloroform	KK. Trichlorofluoromethane	KKK. 1,2,4-Trichlorobenzene	KKKK. Propionitrile	K1. 2,3-Dimethyl pentane
L. 1,2-Dichloroethane	LL. Methyl-tert-butyl ether	LLL. Hexachlorobutadiene	LLLL. Ethyl ether	L1. 2,4-Dimethyl pentane
M. 2-Butanone	MM. 1,2-Dibromo-3-chloropropane	MMM. Naphthalene	MMMM. Benzyl chloride	M1. 3,3-Dimethyl pentane
N. 1,1,1-Trichloroethane	NN. Methyl ethyl ketone	NNN. 1,2,3-Trichlorobenzene	NNNN. Iodomethane	N1. 2-Methylpentane
O. Carbon tetrachloride	OO. 2,2-Dichloropropane	OOO. 1,3,5-Trichlorobenzene	OOOO. 1,1-Difluoroethane	O1. 3-Methylpentane
P. Bromodichloromethane	PP. Bromochloromethane	PPP. trans-1,2-Dichloroethene	PPPP. Tetrahydrofuran	P1. 3-Ethylpentane
Q. 1,2-Dichloropropane	QQ. 1,1-Dichloropropene	QQQ. cis-1,2-Dichloroethene	QQQQ. Methyl acetate	Q1. 2,2-Dimethylpentane
R. cis-1,3-Dichloropropene	RR. Dibromomethane	RRR. m,p-Xylenes	RRRR. Ethyl acetate	R1. 2,2,3-Trimethylbutane
S. Trichloroethene	SS. 1,3-Dichloropropane	SSS. o-Xylene	SSSS. Cyclohexane	S1. 2,2,4-Trimethylpentane
T. Dibromochloromethane	TT. 1,2-Dibromoethane	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	TTTT. Methylcyclohexane	T1. 2-Methylhexane
U. 1,1,1-Trichloroethane	UU. 1,1,1,2-Tetrachloroethane	UUU. 1,2-Dichlorotetrafluoroethane	UUUU. Allyl chloride	U1. Nonanal
V. Benzene	VV. Isopropylbenzene	VVV. 4-Ethyltoluene	VVVV. Methyl methacrylate	V1. 2-Methylnaphthalene
W. trans-1,3-Dichloropropene	WW. Bromobenzene	WWW. Ethanol	WWWWW. Ethyl methacrylate	W1. Methanol
X. Bromoform	XX. 1,2,3-Trichloropropane	XXX. Di-isopropyl ether	XXXX. cis-1,4-Dichloro-2-butene	X1. 1,2,3-Trimethylbenzene
Y. 4-Methyl-2-pentanone	YY. n-Propylbenzene	YYY. tert-Butanol	YYYY. trans-1,4-Dichloro-2-butene	Y1. Hexachloroethane
Z. 2-Hexanone	ZZ. 2-Chlorotoluene	ZZZ. tert-Butyl alcohol	ZZZZ. Pentachloroethane	Z1.

LDC #: 67431

**VALIDATION FINDINGS WORKSHEET**  
Initial Calibration Verification

Page: 6 of 1  
 Reviewer: [Signature]  
 2nd Reviewer: JV6

**METHOD: GC/MS VOA (EPA Method 524.2)**

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

N N/A Was an initial calibration verification standard analyzed after each ICAL for each instrument?  
 Y (N N/A) Were all %D within the validation criteria of  $\leq 30\%$  %D?

#	Date	Standard ID	Compound	Finding %D (Limit: $\leq 30.0\%$ )	Associated Samples	Qualifications
	10/14/18	H00TST	2222	36.1	All (NO)	N/A

**VALIDATION FINDINGS WORKSHEET**  
Continuing Calibration

**METHOD:** GC/MS VOA (EPA Method 524.2)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N/A Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?

Y (N/A) Were all percent differences (%D) ≤ 30% ?

#	Date	Standard ID	Compound	Finding %D (Limit: <30.0%)	Associated Samples	Qualifications
	10/21/18	21OCT02	Y1	36.0	MB	Y/N/P
			BBBB	34.8		↓
			YYYY	50.1		↓
			AAAA	36.9		↓
			2222	126		↓
	12/21/18	21OCT32	B	58.2	1-4. (NO)	Y/N/P
			Y1	38.2		↓
			AAAA	32.6		↓
			Methyl iodide	69.5		↓
			2222	84.7		↓
	10/22/18	22OCT02	B	67.2	5-12 (NO)	Y/N/P
			DD	32.8		↓
			Y1	36.1		↓
			AAAA	32.8		↓
			Methyl iodide	63.9		↓
			2222	119		↓

### VALIDATION FINDINGS WORKSHEET Initial Calibration Calculation Verification

**METHOD:** GC/MS VOA (EPA Method 524.2)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

RRF =  $(A_x)(C_{is}) / (A_{is})(C_x)$   
 average RRF = sum of the RRFs/number of standards  
 %RSD =  $100 * (S/X)$

$A_x$  = Area of compound,  
 $C_x$  = Concentration of compound,  
 $S$  = Standard deviation of the RRFs  
 $X$  = Mean of the RRFs  
 $A_{is}$  = Area of associated internal standard  
 $C_{is}$  = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported	Recalculated	Reported	Recalculated	Reported	Recalculated
				RRF ( 10 std)	RRF ( 10 std)	Average RRF (initial)	Average RRF (initial)	%RSD	%RSD
1	ICAL (MS-V5)	10/14/18	QQQ (1st internal standard)	0.4696443	0.4696443	0.4811585	0.4811585	5.238942	5.239
			S (2nd internal standard)	0.3525042	0.3525042	0.3602418	0.3602418	9.716208	9.716
			EE (3rd internal standard)	1.842402	1.842402	1.83367	1.83367	11.99516	11.995
			(4th internal standard)						
2			QQQ (1st internal standard)						
			S (2nd internal standard)						
			AA (3rd internal standard)						
			HHH (4th internal standard)						
3			QQQ (1st internal standard)						
			S (2nd internal standard)						
			AA (3rd internal standard)						
			HHH (4th internal standard)						
4			QQQ (1st internal standard)						
			S (2nd internal standard)						
			AA (3rd internal standard)						
			HHH (4th internal standard)						

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

## VALIDATION FINDINGS WORKSHEET Continuing Calibration Results Verification

**METHOD:** GC/MS VOA (EPA Method 524.2)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

$$\% \text{ Difference} = 100 * (\text{ave. RRF} - \text{RRF}) / \text{ave. RRF}$$

$$\text{RRF} = (A_x)(C_{is}) / (A_{is})(C_x)$$

Where: ave. RRF = initial calibration average RRF  
 RRF = continuing calibration RRF  
 A<sub>x</sub> = Area of compound,                      A<sub>is</sub> = Area of associated internal standard  
 C<sub>x</sub> = Concentration of compound,            C<sub>is</sub> = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference internal Standard)	Average RRF (initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	21OCT02	10/21/18	QQQ (1st internal standard)	0.4811585	0.4988816	0.4988816	3.7	3.7
			S (2nd internal standard)	0.3602418	0.3439057	0.3439057	4.5	4.5
			EE (3rd internal standard)	1.83367	1.722582	1.722582	6.1	6.1
			HHH (4th internal standard)					
2	21OCT32	10/21/18	QQQ (1st internal standard)	0.4811585	0.4897163	0.4897163	1.8	1.8
			S (2nd internal standard)	0.3602418	0.3332649	0.3332649	7.5	7.5
			EE (3rd internal standard)	1.83367	1.754798	1.754798	4.3	4.3
			HHH (4th internal standard)					
3			QQQ (1st internal standard)					
			S (2nd internal standard)					
			AA (3rd internal standard)					
			HHH (4th internal standard)					
4			QQQ (1st internal standard)					
			S (2nd internal standard)					
			AA (3rd internal standard)					
			HHH (4th internal standard)					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.



**VALIDATION FINDINGS WORKSHEET**  
**Surrogate Results Verification**

**METHOD:** GC/MS VOA (EPA Method 524.2)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery:  $SF/SS * 100$

Where: SF = Surrogate Found  
 SS = Surrogate Spiked

Sample ID: 4

	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
			Reported	Recalculated	
Toluene-d8	10.0	9.91 10.0	100	100	
Bromofluorobenzene	↓	10.0 9.95	99.5	99.5	
1,2-Dichlorobenzene-d4 <u>DCE</u>	↓	9.91 9.91	99.1	99.1	
Dibromofluoromethane					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
			Reported	Recalculated	
Toluene-d8					
Bromofluorobenzene					
1,2-Dichlorobenzene-d4					
Dibromofluoromethane					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
			Reported	Recalculated	
Toluene-d8					
Bromofluorobenzene					
1,2-Dichlorobenzene-d4					
Dibromofluoromethane					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
			Reported	Recalculated	
Toluene-d8					
Bromofluorobenzene					
1,2-Dichlorobenzene-d4					
Dibromofluoromethane					

LDC #: 13751B1

## VALIDATION FINDINGS WORKSHEET Laboratory Control Sample Results Verification

Page: 1 of 1  
Reviewer: [Signature]  
2nd Reviewer: [Signature]

**METHOD:** GC/MS VOA (EPA Method 524.2)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate (if applicable) were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 \* SSC/SA

Where: SSC = Spiked sample concentration  
SA = Spike added

RPD = | LCSC - LCSDC | \* 2 / (LCSC + LCSDC)

LCSC = Laboratory control sample concentration    LCSDC = Laboratory control sample duplicate concentration

LCS ID: B027892-B51

Compound	Spike Added ( <u>NA</u> )		Spiked Sample Concentration ( <u>NA</u> )		LCS		LCSD		LCS/LCSD	
	LCS	LCSD	LCS	LCSD	Percent Recovery		Percent Recovery		RPD	
					Reported	Recalc.	Reported	Recalc.	Reported	Recalculated
1,1-Dichloroethene	<u>25.0</u>	<u>NA</u>	<u>26.050</u>	<u>NA</u>	<u>104</u>	<u>104</u>				
Trichloroethene	<u>↓</u>	<u>↓</u>	<u>25.100</u>	<u>↓</u>	<u>100</u>	<u>100</u>				
Benzene	<u>↓</u>	<u>↓</u>	<u>24.800</u>	<u>↓</u>	<u>99.3</u>	<u>99.3</u>				
Toluene	<u>↓</u>	<u>↓</u>	<u>24.600</u>	<u>↓</u>	<u>98.4</u>	<u>98.4</u>				
Chlorobenzene	<u>↓</u>	<u>↓</u>	<u>23.750</u>	<u>↓</u>	<u>93.4</u>	<u>93.4</u>				

Comments: Refer to Laboratory Control Sample findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

### VALIDATION FINDINGS WORKSHEET Sample Calculation Verification

**METHOD:** GC/MS VOA (EPA Method 524.2)

Y  N  N/A  
 Y  N  N/A

Were all reported results recalculated and verified for all level IV samples?

Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

$$\text{Concentration} = \frac{(A_x)(I_s)(DF)}{(A_s)(RRF)(V_o)(\%S)}$$

- $A_x$  = Area of the characteristic ion (EICP) for the compound to be measured
- $A_s$  = Area of the characteristic ion (EICP) for the specific internal standard
- $I_s$  = Amount of internal standard added in nanograms (ng)
- RRF = Relative response factor of the calibration standard.
- $V_o$  = Volume or weight of sample pruged in milliliters (ml) or grams (g).
- Df = Dilution factor.
- %S = Percent solids, applicable to soils and solid matrices only.

Example:

Sample I.D. 4 N7  
B027892 - BSI, S

$$\text{Conc.} = \frac{(301415)(10.0)(1)}{(33309)(0.3602)(18)}$$

= 25.10 MPL

#	Sample ID	Compound	Reported Concentration	Calculated Concentration	Qualification
	<u>LC9</u>	<u>S</u>	<u>25.1</u>		

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** NASA JPL, 4Q2018  
**LDC Report Date:** December 11, 2018  
**Parameters:** Chromium  
**Validation Level:** Level III & IV  
**Laboratory:** BC Laboratories, Inc.  
**Sample Delivery Group (SDG):** 1832950

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-22-5	1832950-02	Water	10/18/18
MW-22-4	1832950-03	Water	10/18/18
MW-22-3**	1832950-04**	Water	10/18/18
MW-22-2	1832950-05	Water	10/18/18
MW-22-1	1832950-06	Water	10/18/18
MW-24-5	1832950-07	Water	10/18/18
MW-24-4	1832950-08	Water	10/18/18
MW-24-3	1832950-09	Water	10/18/18
MW-24-2	1832950-10	Water	10/18/18
MW-24-1	1832950-11	Water	10/18/18
EB-4-101818	1832950-12	Water	10/18/18
MW-22-5MS	1832950-02MS	Water	10/18/18
MW-22-5MSD	1832950-02MSD	Water	10/18/18
MW-22-5DUP	1832950-02DUP	Water	10/18/18
EB-4-101818MS	1832950-12MS	Water	10/18/18
EB-4-101818MSD	1832950-12MSD	Water	10/18/18
EB-4-101818DUP	1832950-12DUP	Water	10/18/18

\*\*Indicates sample underwent Level IV validation

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with a modified outline of the USEPA National Functional Guidelines (NFG) for Inorganic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Chromium by Environmental Protection Agency (EPA) Method 200.8

All sample results were subjected to Level III data validation, which comprises an evaluation of quality control (QC) summary results. Samples appended with a double asterisk on the cover page were subjected to Level IV data validation, which is comprised of the QC summary forms as well as the raw data, to confirm sample quantitation and identification.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated due to non-conformances discovered during data validation.
- U (Non-detected): The compound or analyte was analyzed for and positively identified by the laboratory; however the compound or analyte should be considered non-detected at the reported concentration due to the presence of contaminants detected in the associated blank(s).
- UJ (Non-detected estimated): The compound or analyte was reported as not detected by the laboratory; however the reported quantitation/detection limit is estimated due to non-conformances discovered during data validation.
- R (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## I. Sample Receipt and Technical Holding Times

All samples were received in good condition.

All technical holding time requirements were met.

## II. ICPMS Tune

The mass calibration was within 0.1 AMU and the percent relative standard deviation (%RSD) was less than or equal to 5%.

## III. Instrument Calibration

Initial and continuing calibrations were performed as required by the method.

The initial calibration verification (ICV) and continuing calibration verification (CCV) standards were within QC limits.

## IV. ICP Interference Check Sample Analysis

ICP interference check sample analysis data were not required by the method.

## V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks with the following exceptions:

Blank ID	Analyte	Maximum Concentration	Associated Samples
PB (prep blank)	Chromium	1.2290 ug/L	MW-22-5 MW-22-4 MW-22-3** MW-22-2 MW-22-1 MW-24-5 MW-24-4 MW-24-3 MW-24-2 MW-24-1
ICB/CCB	Chromium	0.88800 ug/L	MW-22-4 MW-22-3** MW-22-2 MW-22-1 MW-24-5 MW-24-4 MW-24-3 MW-24-2 MW-24-1

Data qualification by the laboratory blanks was based on the maximum contaminant concentration in the laboratory blanks in the analysis of each analyte. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated laboratory blanks with the following exceptions:

Sample	Analyte	Reported Concentration	Modified Final Concentration
MW-22-5	Chromium	1.7 ug/L	1.7U ug/L
MW-22-4	Chromium	4.2 ug/L	4.2U ug/L
MW-22-3**	Chromium	3.1 ug/L	3.1U ug/L
MW-22-2	Chromium	3.6 ug/L	3.6U ug/L
MW-22-1	Chromium	2.6 ug/L	2.6U ug/L
MW-24-5	Chromium	6.0 ug/L	6.0U ug/L
MW-24-4	Chromium	2.7 ug/L	2.7U ug/L
MW-24-3	Chromium	2.9 ug/L	2.9U ug/L
MW-24-2	Chromium	4.4 ug/L	4.4U ug/L
MW-24-1	Chromium	3.0 ug/L	3.0U ug/L

## VI. Field Blanks

Sample EB-4-101818 was identified as an equipment blank. No contaminants were found.

## VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## VIII. Duplicate Sample Analysis

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **IX. Serial Dilution**

Serial dilution analysis was performed on an associated project sample. Percent differences (%D) were within QC limits.

## **X. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **XI. Field Duplicates**

No field duplicates were identified in this SDG.

## **XII. Internal Standards (ICP-MS)**

All internal standard percent recoveries (%R) were within QC limits for samples which underwent Level IV validation. Raw data were not reviewed for Level III validation.

## **XIII. Sample Result Verification**

All sample result verifications were acceptable for samples which underwent Level IV validation. Raw data were not reviewed for Level III validation.

## **XIV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to laboratory blank contamination, data were qualified as not detected in ten samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Based upon the data validation all other results are considered valid and usable for all purposes.



**NASA JPL, 4Q2018  
Chromium - Data Qualification Summary - SDG 1832950**

No Sample Data Qualified in this SDG

**NASA JPL, 4Q2018  
Chromium - Laboratory Blank Data Qualification Summary - SDG 1832950**

Sample	Analyte	Modified Final Concentration	A or P
MW-22-5	Chromium	1.7U ug/L	A
MW-22-4	Chromium	4.2U ug/L	A
MW-22-3**	Chromium	3.1U ug/L	A
MW-22-2	Chromium	3.6U ug/L	A
MW-22-1	Chromium	2.6U ug/L	A
MW-24-5	Chromium	6.0U ug/L	A
MW-24-4	Chromium	2.7U ug/L	A
MW-24-3	Chromium	2.9U ug/L	A
MW-24-2	Chromium	4.4U ug/L	A
MW-24-1	Chromium	3.0U ug/L	A

**METHOD:** Chromium (EPA Method 200.8)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A	
II.	ICP/MS Tune	A	
III.	Instrument Calibration	A	
IV.	ICP Interference Check Sample (ICS) Analysis	N	not required
V.	Laboratory Blanks	SW	
VI.	Field Blanks	ND	EB = 11
VII.	Matrix Spike/Matrix Spike Duplicates	A	MS/MSD
VIII.	Duplicate sample analysis	A	DUP
IX.	Serial Dilution	A	SD: 1
X.	Laboratory control samples	A	LCS
XI.	Field Duplicates	N	
XII.	Internal Standard (ICP-MS)	A	not reviewed for Level III
XIII.	Sample Result Verification	A	Not reviewed for Level III validation
XIV.	Overall Assessment of Data	A	

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

\*\* Indicates sample underwent Level IV validation

	Client ID	Lab ID	Matrix	Date
1	MW-22-5	1832950-02	Water	10/18/18
2	MW-22-4	1832950-03	Water	10/18/18
3	MW-22-3**	1832950-04**	Water	10/18/18
4	MW-22-2	1832950-05	Water	10/18/18
5	MW-22-1	1832950-06	Water	10/18/18
6	MW-24-5	1832950-07	Water	10/18/18
7	MW-24-4	1832950-08	Water	10/18/18
8	MW-24-3	1832950-09	Water	10/18/18
9	MW-24-2	1832950-10	Water	10/18/18
10	MW-24-1	1832950-11	Water	10/18/18
11	EB-4-101818	1832950-12	Water	10/18/18
12	MW-22-5MS	1832950-02MS	Water	10/18/18
13	MW-22-5MSD	1832950-02MSD	Water	10/18/18
14	MW-22-5DUP	1832950-02DUP	Water	10/18/18
15	EB-4-101818MS	1832950-12MS	Water	10/18/18

LDC #: 43751B4a **VALIDATION COMPLETENESS WORKSHEET**  
 SDG #: 1832950 Level III/IV  
 Laboratory: BC Laboratories, Inc.

Date: 12-5-18  
 Page: 2 of 2  
 Reviewer: MG  
 2nd Reviewer: [Signature]

**METHOD:** Chromium (EPA Method 200.8)

	Client ID	Lab ID	Matrix	Date
16	<u>2</u> EB-4-101818MSD	1832950-12MSD	Water	10/18/18
17	<u>2</u> EB-4-101818DUP	1832950-12DUP	Water	10/18/18
18				
19				
20				
21	<u>1</u> PBW1			
22	<u>2</u> PBW2			

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Method:Metals (EPA SW 846 Method 6010/7000/6020)**

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
<b>II. ICP/MS Tune</b>				
Were all isotopes in the tuning solution mass resolution within 0.1 amu?	✓			
Were %RSD of isotopes in the tuning solution $\leq 5\%$ ?	✓			
<b>III. Calibration</b>				
Were all instruments calibrated daily, each set-up time?	✓			
Were the proper number of standards used?	✓			
Were all initial and continuing calibration verification %Rs within the 90-110% (80-120% for mercury) QC limits?	✓			
Were all initial calibration correlation coefficients $> 0.995$ ?	✓			
<b>IV. Blanks</b>				
Was a method blank associated with every sample in this SDG?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	✓			
<b>V. ICP Interference Check Sample</b>				
Were ICP interference check samples performed daily?		✓		
Were the AB solution percent recoveries (%R) with the 80-120% QC limits?			✓	
<b>VI. Matrix spike/Matrix spike duplicates</b>				
Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.	✓			
Were the MS/MSD or duplicate relative percent differences (RPD) $\leq 20\%$ for waters and $\leq 35\%$ for soil samples? A control limit of $\pm RL(\pm 2X RL$ for soil) was used for samples that were $\leq 5X$ the RL, including when only one of the duplicate sample values were $< 5X$ the RL.	✓			
<b>VII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% QC limits for water samples and laboratory established QC limits for soils?	✓			

Validation Area	Yes	No	NA	Findings/Comments
<b>VIII. Internal Standards (EPA SW 846 Method 6020/EPA 200.8)</b>				
Were all the percent recoveries (%R) within the 30-120% (6020)/60-125% (200.8) of the intensity of the internal standard in the associated initial calibration?	✓			
If the %Rs were outside the criteria, was a reanalysis performed?			✓	
<b>IX. ICP Serial Dilution</b>				
Was an ICP serial dilution analyzed if analyte concentrations were > 50X the MDL (ICP)/>100X the MDL(ICP/MS)?	✓			
Were all percent differences (%Ds) < 10%?	✓			
Was there evidence of negative interference? If yes, professional judgement will be used to qualify the data.		✓		
<b>X. Sample Result Verification</b>				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
<b>XI. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	✓			
<b>XII. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.		✓		
Target analytes were detected in the field duplicates.			✓	
<b>XIII. Field blanks</b>				
Field blanks were identified in this SDG.	✓			
Target analytes were detected in the field blanks.		✓		

LDC #: 43751B4a  
 SDG #: See Cover

VALIDATION FINDINGS WORKSHEET  
 PB/ICB/CCB QUALIFIED SAMPLES

Page: 1 of 1  
 Reviewer: MG  
 2nd Reviewer: [Signature]

METHOD: Trace metals (EPA SW 864 Method 200.8)

Soil preparation factor applied: NA

Sample Concentration units, unless otherwise noted: ug/L

Associated Samples: 1-10

Analyte	Maximum PB <sup>a</sup> (mg/Kg)	Maximum PB <sup>a</sup> (ug/L)	Maximum ICB/CCB <sup>a</sup> (ug/L)	Action Limit	1	2	3	4	5	6	7	8	9	10
Cr		1.2290		6.145	1.7	4.2	3.1	3.6	2.6	6.0	2.7	2.9	4.4	3.0

Sample Concentration units, unless otherwise noted: ug/L

Associated Samples: 2-10

Analyte	Maximum PB <sup>a</sup> (mg/Kg)	Maximum PB <sup>a</sup> (ug/L)	Maximum ICB/CCB <sup>a</sup> (ug/L)	Action Limit	2	3	4	5	7	8	9	10		
Cr			0.88800	4.440	see PB	see PB	see PB	see PB	see PB	see PB	see PB	see PB		

Samples with analyte concentrations within five times the associated ICB, CCB or PB concentration are listed above with the identifications from the Validation Completeness Worksheet. These sample results were qualified as not detected, "U".

Note : a - The listed analyte concentration is the highest ICB, CCB, or PB detected in the analysis of each element.

LDC #: 43751B4a

**VALIDATION FINDINGS WORKSHEET**  
**Initial and Continuing Calibration Calculation Verification**

Page: 1 of 1  
 Reviewer: MG  
 2nd Reviewer: [Signature]

**METHOD:** Trace metals (EPA SW 846 Method 6010/6020/7000)

An initial and continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

$$\%R = \frac{\text{Found}}{\text{True}} \times 100$$

Where, Found = concentration (in ug/L) of each analyte measured in the analysis of the ICV or CCV solution  
 True = concentration (in ug/L) of each analyte in the ICV or CCV source

Standard ID	Type of Analysis	Element	Found (ug/L)	True (ug/L)	Recalculated	Reported	Acceptable (Y/N)
					%R	%R	
	ICP (Low Level calibration)						
	ICP/MS (Low Level calibration)						
	ICP (Initial calibration)						
<u>0816 ICV</u>	ICP/MS (Initial calibration)	<u>Cr</u>	<u>50.785</u>	<u>50.000</u>	<u>102</u>	<u>102</u>	<u>Y</u>
	CVAA (Initial calibration)						↓
	ICP (Continuing calibration)						
<u>1653 CCVG</u>	ICP/MS (Continuing calibration)	<u>Cr</u>	<u>40.131</u>	<u>40.000</u>	<u>100</u>	<u>100</u>	↓
	CVAA (Continuing calibration)						

ICP-MS TUNE	Calculation	Mass	Actual (Mean Counts / Axis)	Required (Counts / Axis)	Recalculated %RSD	Acceptable (Y/N)
<u>tune</u>	Mass Axis	<u>139.905</u>	<u>139.925</u>	<u>± 0.1 AMU</u>	<u>NA</u>	<u>Y</u>
↓	%RSD	<u>114.9</u>	<u>1.4</u>	<u>≤ 5% RSD</u>	<u>1.4</u>	↓

Comments:

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LDC #: 43751B4a

**VALIDATION FINDINGS WORKSHEET**  
**Level IV Recalculation Worksheet**

Page: 1 of 1  
 Reviewer: MG  
 2nd Reviewer: [Signature]

**METHOD:** Trace Metals (EPA SW 846 Method 6010/6020/7000)

Percent recoveries (%R) for an ICP interference check sample, a laboratory control sample and a matrix spike sample were recalculated using the following formula:

$$\%R = \frac{\text{Found}}{\text{True}} \times 100$$
 Where, Found = Concentration of each analyte measured in the analysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result) - SR (sample result).  
 True = Concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

$$RPD = \frac{|S-D|}{(S+D)/2} \times 100$$
 Where, S = Original sample concentration  
 D = Duplicate sample concentration

An ICP serial dilution percent difference (%D) was recalculated using the following formula:

$$\%D = \frac{|I-SDR|}{I} \times 100$$
 Where, I = Initial Sample Result (mg/L)  
 SDR = Serial Dilution Result (mg/L) (Instrument Reading x 5)

Sample ID	Type of Analysis	Element	Found / S / I (units)	True / D / SDR (units)	Recalculated	Reported	Acceptable (Y/N)
					%R / RPD / %D	%R / RPD / %D	
-	ICP interference check	-	-	-	-	-	-
<u>1625</u> <u>LCS</u>	Laboratory control sample	<u>Cr</u>	<u>42.88 (mg/L)</u>	<u>40.00 (mg/L)</u>	<u>107</u>	<u>107</u>	<u>Y</u>
<u>1642</u> <u>12</u>	Matrix spike	<u>Cr</u>	<u>(SSR-SR)</u> <u>40.68 (mg/L)</u>	<u>40.00 (mg/L)</u>	<u>102</u>	<u>102</u>	↓
<u>1632 / 1636</u> <u>14</u>	Duplicate	<u>Cr</u>	<u>1.683 (mg/L)</u>	<u>1.752 (mg/L)</u>	<u>4.02</u>	<u>4.02</u>	
<u>1632 / 1639</u> <u>1</u>	ICP serial dilution	<u>Cr</u>	<u>1.683 (mg/L)</u>	<u>3.270 (mg/L)</u>	<u>94</u>	<u>-</u>	

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.



LDC #: 43751B4a

**VALIDATION FINDINGS WORKSHEET**  
**Sample Calculation Verification**

Page: 1 of 1  
Reviewer: MG  
2nd reviewer: [Signature]

**METHOD:** Trace Metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

- Y  N  N/A Have results been reported and calculated correctly?
- Y  N  N/A Are results within the calibrated range of the instruments and within the linear range of the ICP?
- Y  N  N/A Are all detection limits below the CRDL?

Detected analyte results for # 3, Cr were recalculated and verified using the following equation:

Concentration =  $\frac{(RD)(FV)(Dil)}{(In. Vol.)}$

Recalculation:

- RD = Raw data concentration
- FV = Final volume (ml)
- In. Vol. = Initial volume (ml) or weight (G)
- Dil = Dilution factor

$$\frac{(3.101 \text{ mg/L})(0.050 \text{ L})}{0.050 \text{ L}} = 3.101 \text{ mg/L}$$

#	Sample ID	Analyte	Reported Concentration (mg/L)	Calculated Concentration (mg/L)	Acceptable (Y/N)
1	3	Cr	3.1	3.1	Y

Note: \_\_\_\_\_

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** NASA JPL, 4Q2018

**LDC Report Date:** December 11, 2018

**Parameters:** Wet Chemistry

**Validation Level:** Level III & IV

**Laboratory:** BC Laboratories, Inc.

**Sample Delivery Group (SDG):** 1832950

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-22-5	1832950-02	Water	10/18/18
MW-22-4	1832950-03	Water	10/18/18
MW-22-3**	1832950-04**	Water	10/18/18
MW-22-2	1832950-05	Water	10/18/18
MW-22-1	1832950-06	Water	10/18/18
MW-24-5	1832950-07	Water	10/18/18
MW-24-4	1832950-08	Water	10/18/18
MW-24-3	1832950-09	Water	10/18/18
MW-24-2	1832950-10	Water	10/18/18
MW-24-1	1832950-11	Water	10/18/18
EB-4-101818	1832950-12	Water	10/18/18
MW-22-5MS	1832950-02MS	Water	10/18/18
MW-22-5MSD	1832950-02MSD	Water	10/18/18
MW-22-5DUP	1832950-02DUP	Water	10/18/18
MW-24-2MS	1832950-10MS	Water	10/18/18
MW-24-2MSD	1832950-10MSD	Water	10/18/18
MW-24-2DUP	1832950-10DUP	Water	10/18/18
MW-24-1MS	1832950-11MS	Water	10/18/18
MW-24-1MSD	1832950-11MSD	Water	10/18/18
MW-24-1DUP	1832950-11DUP	Water	10/18/18

\*\*Indicates sample underwent Level IV validation

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with a modified outline of the USEPA National Functional Guidelines (NFG) for Inorganic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following methods:

Chloride, Sulfate, and Nitrate as Nitrogen by Environmental Protection Agency (EPA) Method 300.0

Hexavalent Chromium by EPA SW 846 Method 7196

Nitrite as Nitrogen by EPA Method 353.2

Orthophosphate as Phosphorus by EPA Method 365.1

Perchlorate by EPA Method 314.0

All sample results were subjected to Level III data validation, which comprises an evaluation of quality control (QC) summary results. Samples appended with a double asterisk on the cover page were subjected to Level IV data validation, which is comprised of the QC summary forms as well as the raw data, to confirm sample quantitation and identification.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated due to non-conformances discovered during data validation.
- U (Non-detected): The compound or analyte was analyzed for and positively identified by the laboratory; however the compound or analyte should be considered non-detected at the reported concentration due to the presence of contaminants detected in the associated blank(s).
- UJ (Non-detected estimated): The compound or analyte was reported as not detected by the laboratory; however the reported quantitation/detection limit is estimated due to non-conformances discovered during data validation.
- R (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition.

All technical holding time requirements were met.

## **II. Initial Calibration**

All criteria for the initial calibration of each method were met.

## **III. Continuing Calibration**

Continuing calibration frequency and analysis criteria were met for each method when applicable.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the methods. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

Sample EB-4-101818 was identified as an equipment blank. No contaminants were found.

## **VI. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **VII. Duplicate Sample Analysis**

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the methods. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Sample Result Verification**

All sample result verifications were acceptable for samples which underwent Level IV validation. Raw data were not reviewed for Level III validation.

## **XI. Overall Assessment of Data**

The analysis was conducted within all specifications of the methods. No results were rejected in this SDG.

The quality control criteria reviewed were met and are considered acceptable. Based upon the data validation all results are considered valid and usable for all purposes.

**NASA JPL, 4Q2018**  
**Wet Chemistry - Data Qualification Summary - SDG 1832950**

No Sample Data Qualified in this SDG

**NASA JPL, 4Q2018**  
**Wet Chemistry - Laboratory Blank Data Qualification Summary - SDG 1832950**

No Sample Data Qualified in this SDG

LDC #: 43751B6

## VALIDATION COMPLETENESS WORKSHEET

Date: 12-5-18

SDG #: 1832950

Level III/IV

Page: 1 of 2

Laboratory: BC Laboratories, Inc.

Reviewer: MG

2nd Reviewer: 

~~M/S~~ **METHOD: (Analyte)** Chloride, Sulfate, Nitrate-N (EPA Method 300.0), Hexavalent Chromium (EPA SW846 Method 7196),  
~~Nitrate-N~~ (EPA Method 353.2), Orthophosphate-P (EPA method 365.1), Perchlorate (EPA Method 314.0),

Nitrite-N

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A	
II	Initial calibration	A	
III.	Calibration verification	A	
IV	Laboratory Blanks	A	
V	Field blanks	ND	EB = 11
VI.	Matrix Spike/Matrix Spike Duplicates	A	MS/MSD (SDG: 1832621)
VII.	Duplicate sample analysis	A	DUP ( ↓ )
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Sample result verification	A	Not reviewed for Level III validation
XI	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

\*\* Indicates sample underwent Level IV validation

	Client ID	Lab ID	Matrix	Date
1	MW-22-5	1832950-02	Water	10/18/18
2	MW-22-4	1832950-03	Water	10/18/18
3	MW-22-3**	1832950-04**	Water	10/18/18
4	MW-22-2	1832950-05	Water	10/18/18
5	MW-22-1	1832950-06	Water	10/18/18
6	MW-24-5	1832950-07	Water	10/18/18
7	MW-24-4	1832950-08	Water	10/18/18
8	MW-24-3	1832950-09	Water	10/18/18
9	MW-24-2	1832950-10	Water	10/18/18
10	MW-24-1	1832950-11	Water	10/18/18
11	EB-4-101818	1832950-12	Water	10/18/18
12	MW-22-5MS	1832950-02MS	Water	10/18/18
13	MW-22-5MSD	1832950-02MSD	Water	10/18/18
14	MW-22-5DUP	1832950-02DUP	Water	10/18/18
15	MW-24-2MS	1832950-10MS	Water	10/18/18
16	MW-24-2MSD	1832950-10MSD	Water	10/18/18
17	MW-24-2DUP	1832950-10DUP	Water	10/18/18



LDC #: 43751B6

### VALIDATION COMPLETENESS WORKSHEET

Date: 12-5-18

SDG #: 1832950

Level III/IV

Page: 2 of 2

Laboratory: BC Laboratories, Inc.

Reviewer: *MG*

2nd Reviewer: *[Signature]*

**METHOD: (Analyte)** Chloride, Sulfate, Nitrate-N (EPA Method 300.0), Hexavalent Chromium (EPA SW846 Method 7196), Nitrate-N (EPA Method 353.2), Orthophosphate-P (EPA method 365.1), Perchlorate (EPA Method 314.0).

	Client ID	Lab ID	Matrix	Date
18	MW-24-1MS	1832950-11MS	Water	10/18/18
19	MW-24-1MSD	1832950-11MSD	Water	10/18/18
20	MW-24-1DUP	1832950-11DUP	Water	10/18/18
21				
22				
23				
24	PBW1			
25	PBW2			

Notes:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Method: Inorganics (EPA Method see cover)

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
<b>II. Calibration</b>				
Were all instruments calibrated daily, each set-up time?	✓			
Were the proper number of standards used?	✓			
Were all initial calibration correlation coefficients $\geq 0.995$ ?	✓			
Were all initial and continuing calibration verification %Rs within the 90-110% QC limits?	✓			
Were titrant checks performed as required? (Level IV only)			✓	
Were balance checks performed as required? (Level IV only)			✓	
<b>III. Blanks</b>				
Was a method blank associated with every sample in this SDG?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
<b>IV. Matrix spike/Matrix spike duplicates and Duplicates</b>				
Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.	✓			
Were the MS/MSD or duplicate relative percent differences (RPD) $\leq 20\%$ for waters and $\leq 35\%$ for soil samples? A control limit of $\leq$ CRDL ( $\leq 2X$ CRDL for soil) was used for samples that were $\leq 5X$ the CRDL, including when only one of the duplicate sample values were $< 5X$ the CRDL.	✓			
<b>V. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% (85-115% for Method 300.0) QC limits?	✓			
<b>VI. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

Validation Area	Yes	No	NA	Findings/Comments
<b>VII. Sample Result Verification</b>				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
Were detection limits < RL?	✓			
<b>VIII. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	✓			
<b>IX. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.		✓		
Target analytes were detected in the field duplicates.			✓	
<b>X. Field blanks</b>				
Field blanks were identified in this SDG.	✓			
Target analytes were detected in the field blanks.		✓		

**VALIDATION FINDINGS WORKSHEET**  
**Sample Specific Analysis Reference**

All circled methods are applicable to each sample.

Sample ID	Matrix	Parameter
1→9, 11	W	pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC <u>CR<sup>6+</sup></u> <u>ClO<sub>4</sub></u>
10	↓	pH TDS <u>Cl</u> F <u>NO<sub>3</sub></u> <u>NO<sub>2</sub></u> <u>SO<sub>4</sub></u> <u>PO<sub>4</sub></u> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC <u>CR<sup>6+</sup></u> <u>ClO<sub>4</sub></u>
QC 12→17		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC <u>CR<sup>6+</sup></u> ClO <sub>4</sub>
↓ 18→20		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> <u>PO<sub>4</sub></u> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
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		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>

Comments: \_\_\_\_\_

LDC #: 43751B6

**VALIDATION FINDINGS WORKSHEET**  
**Initial and Continuing Calibration Calculation Verification**

Page: 1 of 1  
 Reviewer: MG  
 2nd Reviewer: Q

METHOD: Inorganics, Method see cover

The correlation coefficient (r) for the calibration of C104 was recalculated. Calibration date: 10-29-18

An initial or continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

$\%R = \frac{\text{Found}}{\text{True}} \times 100$       Where, Found = concentration of each analyte measured in the analysis of the ICV or CCV solution  
 True = concentration of each analyte in the ICV or CCV source

Type of Analysis	Analyte	Standard ID	Conc. Found (units)	Area True (units)	Recalculated	Reported	Acceptable (Y/N)
					r or %R	r or %R	
Initial calibration	C104	Blank	-	-	r <sup>2</sup> =0.999573	r <sup>2</sup> =0.998288	Y
		Standard 1	2.5 (µg/L)	0.0028			
		Standard 2	4.0 ( )	0.0046			
		Standard 3	6.0 ( )	0.0064			
		Standard 4	10.0 ( )	0.0112			
		Standard 5	20.0 (↓)	0.0223			
		Standard 6	-	-			
		Standard 7	-	-			
Calibration verification	Cr VI	0115 CCV1	0.0522 (mg/L)	0.050 (mg/L)	104	104	
Calibration verification	C104	1813 CCV2	9.740 (µg/L)	10.00 (µg/L)	97.4	97.4	
Calibration verification	-	-	-	-	-	-	-

Comments: Refer to Calibration Verification findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 43751B6

**VALIDATION FINDINGS WORKSHEET**  
**Level IV Recalculation Worksheet**

Page: 1 of 1  
 Reviewer: MG  
 2nd Reviewer: [Signature]

METHOD: Inorganics, Method see cover

Percent recoveries (%R) for a laboratory control sample and a matrix spike sample were recalculated using the following formula:

$$\%R = \frac{\text{Found}}{\text{True}} \times 100$$
 Where, Found = concentration of each analyte measured in the analysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result) - SR (sample result).  
 True = concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

$$RPD = \frac{|S-D|}{(S+D)/2} \times 100$$
 Where, S = Original sample concentration  
 D = Duplicate sample concentration

Sample ID	Type of Analysis	Element	Found / S (units)	True / D (units)	Recalculated	Reported	Acceptable (Y/N)
					%R / RPD	%R / RPD	
<u>1322</u> <u>LCS</u>	Laboratory control sample	<u>ClO<sub>4</sub></u>	<u>10.74 (µg/L)</u>	<u>10.00 (µg/L)</u>	<u>107</u>	<u>107</u>	<u>Y</u>
<u>0115</u> <u>12</u>	Matrix spike sample	<u>Cr VI</u>	(SSR-SR) <u>0.0519 (mg/L)</u>	<u>0.052632 (mg/L)</u>	<u>98.6</u>	<u>98.6</u>	↓
<u>0115/0115</u> <u>14</u>	Duplicate sample	<u>Cr VI</u>	<u>0.000704 (mg/L)</u>	<u>0.000704 (mg/L)</u>	<u>0</u>	<u>-</u>	

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 43751B6

## VALIDATION FINDINGS WORKSHEET Sample Calculation Verification

Page: 1 of 1  
 Reviewer: MG  
 2nd reviewer: [Signature]

METHOD: Inorganics, Method see cover

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

- Y  N  N/A      Have results been reported and calculated correctly?  
 Y  N  N/A      Are results within the calibrated range of the instruments?  
 Y  N  N/A      Are all detection limits below the CRQL?

Compound (analyte) results for # 3, CrO4 reported with a positive detect were recalculated and verified using the following equation:

Concentration =                                  Recalculation:  
 $Y = mx + b$   
 where  
 $m = 0.0011$   
 $b = 0.0000$   
 $dil = 1x$

$$0.002 = 0.0011(x) + 0.0000$$

$$1.818 \text{ mg/L} = x$$

#	Sample ID	Analyte	Reported Concentration (mg/L)	Calculated Concentration (mg/L)	Acceptable (Y/N)
1	3	CrO4	1.9	1.8	Y
	↓	Cr VI	0.0018	0.0024	↓

Note: the lab uses more significant figures than what is reported in the raw data

## NASA JPL, Q42018 - LDC# 43751B

SDG: 1832950

<b>Analytical Method</b>											
EPA-200.8											
<b>Sample ID</b>	<b>Lab Sample ID</b>	<b>Chemical Name</b>	<b>Anal Date</b>	<b>Result</b>	<b>Report</b>	<b>Detect</b>	<b>Lab Qual</b>	<b>Val Qual</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
EB-4-101818	1832950-12	Total Recoverable Chromium	10/26/2018	3	Y	n	u		3.0	0.50	ug/L
MW-22-1	1832950-06	Total Recoverable Chromium	10/26/2018	2.6	Y	y	v j	U	3.0	0.50	ug/L
MW-22-2	1832950-05	Total Recoverable Chromium	10/26/2018	3.6	Y	y	v	U	3.0	0.50	ug/L
MW-22-3	1832950-04	Total Recoverable Chromium	10/26/2018	3.1	Y	y	v	U	3.0	0.50	ug/L
MW-22-4	1832950-03	Total Recoverable Chromium	10/26/2018	4.2	Y	y	v	U	3.0	0.50	ug/L
MW-22-5	1832950-02	Total Recoverable Chromium	10/26/2018	1.7	Y	y	v j	U	3.0	0.50	ug/L
MW-24-1	1832950-11	Total Recoverable Chromium	10/26/2018	3	Y	y	v	U	3.0	0.50	ug/L
MW-24-2	1832950-10	Total Recoverable Chromium	10/26/2018	4.4	Y	y	v	U	3.0	0.50	ug/L
MW-24-3	1832950-09	Total Recoverable Chromium	10/26/2018	2.9	Y	y	v j	U	3.0	0.50	ug/L
MW-24-4	1832950-08	Total Recoverable Chromium	10/26/2018	2.7	Y	y	v j	U	3.0	0.50	ug/L
MW-24-5	1832950-07	Total Recoverable Chromium	10/26/2018	6	Y	y	v	U	3.0	0.50	ug/L

<b>Analytical Method</b>											
EPA-300.0											
<b>Sample ID</b>	<b>Lab Sample ID</b>	<b>Chemical Name</b>	<b>Anal Date</b>	<b>Result</b>	<b>Report</b>	<b>Detect</b>	<b>Lab Qual</b>	<b>Val Qual</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
MW-24-1	1832950-11	Chloride	10/19/2018	96	Y	y	v		0.50	0.077	mg/L
MW-24-1	1832950-11	Nitrate as N	10/19/2018	1.8	Y	y	v		0.10	0.021	mg/L
MW-24-1	1832950-11	Sulfate	10/19/2018	52	Y	y	v		1.0	0.13	mg/L

<b>Analytical Method</b>											
EPA-314.0											
<b>Sample ID</b>	<b>Lab Sample ID</b>	<b>Chemical Name</b>	<b>Anal Date</b>	<b>Result</b>	<b>Report</b>	<b>Detect</b>	<b>Lab Qual</b>	<b>Val Qual</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
EB-4-101818	1832950-12	Perchlorate	10/29/2018	4	Y	n	u		4.0	0.92	ug/L
MW-22-1	1832950-06	Perchlorate	10/29/2018	2.6	Y	y	v j		4.0	0.92	ug/L
MW-22-2	1832950-05	Perchlorate	10/29/2018	2.5	Y	y	v j		4.0	0.92	ug/L
MW-22-3	1832950-04	Perchlorate	10/29/2018	1.9	Y	y	v j		4.0	0.92	ug/L
MW-22-4	1832950-03	Perchlorate	10/29/2018	0.97	Y	y	v j		4.0	0.92	ug/L



SDG: 1832950

**Analytical Method** EPA-314.0

<b>Sample ID</b>	<b>Lab Sample ID</b>	<b>Chemical Name</b>	<b>Anal Date</b>	<b>Result</b>	<b>Report</b>	<b>Detect</b>	<b>Lab Qual</b>	<b>Val Qual</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
MW-22-5	1832950-02	Perchlorate	10/29/2018	4	Y	n	u		4.0	0.92	ug/L
MW-24-1	1832950-11	Perchlorate	10/29/2018	4.4	Y	y	v		4.0	0.92	ug/L
MW-24-2	1832950-10	Perchlorate	10/29/2018	2.4	Y	y	v j		4.0	0.92	ug/L
MW-24-3	1832950-09	Perchlorate	10/29/2018	4	Y	n	u		4.0	0.92	ug/L
MW-24-4	1832950-08	Perchlorate	10/29/2018	4	Y	n	u		4.0	0.92	ug/L
MW-24-5	1832950-07	Perchlorate	10/29/2018	4	Y	n	u		4.0	0.92	ug/L

**Analytical Method** EPA-353.2

<b>Sample ID</b>	<b>Lab Sample ID</b>	<b>Chemical Name</b>	<b>Anal Date</b>	<b>Result</b>	<b>Report</b>	<b>Detect</b>	<b>Lab Qual</b>	<b>Val Qual</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
MW-24-1	1832950-11	Nitrite as N	10/19/2018	0.05	Y	n	u		0.050	0.010	mg/L

**Analytical Method** EPA-365.1

<b>Sample ID</b>	<b>Lab Sample ID</b>	<b>Chemical Name</b>	<b>Anal Date</b>	<b>Result</b>	<b>Report</b>	<b>Detect</b>	<b>Lab Qual</b>	<b>Val Qual</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
MW-24-1	1832950-11	ortho-Phosphate as P	10/19/2018	0.05	Y	n	u		0.050	0.017	mg/L

**Analytical Method** EPA-524.2

<b>Sample ID</b>	<b>Lab Sample ID</b>	<b>Chemical Name</b>	<b>Anal Date</b>	<b>Result</b>	<b>Report</b>	<b>Detect</b>	<b>Lab Qual</b>	<b>Val Qual</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
EB-4-101818	1832950-12	1,2-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-4-101818	1832950-12	1,2-Dibromoethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
EB-4-101818	1832950-12	Dibromomethane	10/22/2018	0.5	Y	n	u		0.50	0.23	ug/L
EB-4-101818	1832950-12	1,2-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
EB-4-101818	1832950-12	1,3-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
EB-4-101818	1832950-12	1,4-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-4-101818	1832950-12	Dichlorodifluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-4-101818	1832950-12	1,1-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-4-101818	1832950-12	1,2-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-4-101818	1832950-12	1,1-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L

SDG: 1832950

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
EB-4-101818	1832950-12	1,3-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
EB-4-101818	1832950-12	trans-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-4-101818	1832950-12	1,2-Dibromo-3-chloropropane	10/22/2018	1	Y	n	u		1.0	0.89	ug/L
EB-4-101818	1832950-12	Benzene	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L
EB-4-101818	1832950-12	cis-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
EB-4-101818	1832950-12	sec-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
EB-4-101818	1832950-12	Chloromethane	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L
EB-4-101818	1832950-12	Bromobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-4-101818	1832950-12	2,2-Dichloropropane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.18	ug/L
EB-4-101818	1832950-12	Bromodichloromethane	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
EB-4-101818	1832950-12	Bromoform	10/22/2018	0.5	Y	n	u		0.50	0.46	ug/L
EB-4-101818	1832950-12	Bromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
EB-4-101818	1832950-12	n-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-4-101818	1832950-12	Dibromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
EB-4-101818	1832950-12	tert-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
EB-4-101818	1832950-12	Carbon tetrachloride	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-4-101818	1832950-12	Chlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-4-101818	1832950-12	Chloroform	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-4-101818	1832950-12	2-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-4-101818	1832950-12	4-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.093	ug/L
EB-4-101818	1832950-12	Bromomethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
EB-4-101818	1832950-12	Methyl isobutyl ketone	10/22/2018	10	Y	n	u		10	2.4	ug/L
EB-4-101818	1832950-12	Acrylonitrile	10/22/2018	5	Y	n	u		5.0	1.5	ug/L
EB-4-101818	1832950-12	Allyl chloride	10/22/2018	5	Y	n	u		5.0	0.47	ug/L
EB-4-101818	1832950-12	t-Amyl Methyl ether	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L

SDG: 1832950

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
EB-4-101818	1832950-12	t-Butyl alcohol	10/22/2018	10	Y	n	u		10	9.4	ug/L
EB-4-101818	1832950-12	Carbon disulfide	10/22/2018	1	Y	n	u		1.0	0.48	ug/L
EB-4-101818	1832950-12	trans-1,4-Dichloro-2-butene	10/22/2018	5	Y	n	u		5.0	1.8	ug/L
EB-4-101818	1832950-12	Diethyl ether	10/22/2018	2	Y	n	u		2.0	0.33	ug/L
EB-4-101818	1832950-12	Ethyl methacrylate	10/22/2018	4	Y	n	u		4.0	1.3	ug/L
EB-4-101818	1832950-12	Ethyl t-butyl ether	10/22/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
EB-4-101818	1832950-12	Hexachloroethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
EB-4-101818	1832950-12	2-Hexanone	10/22/2018	10	Y	n	u		10	5.0	ug/L
EB-4-101818	1832950-12	Methacrylonitrile	10/22/2018	10	Y	n	u		10	2.3	ug/L
EB-4-101818	1832950-12	Acetone	10/22/2018	10	Y	n	u		10	6.6	ug/L
EB-4-101818	1832950-12	Methyl iodide	10/22/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
EB-4-101818	1832950-12	Propionitrile	10/22/2018	20	Y	n	u		20	6.2	ug/L
EB-4-101818	1832950-12	Methyl methacrylate	10/22/2018	5	Y	n	u		5.0	1.2	ug/L
EB-4-101818	1832950-12	Pentachloroethane	10/22/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
EB-4-101818	1832950-12	1,1-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
EB-4-101818	1832950-12	Tetrahydrofuran	10/22/2018	20	Y	n	u		20	5.2	ug/L
EB-4-101818	1832950-12	Chloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-4-101818	1832950-12	o-Xylene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
EB-4-101818	1832950-12	Chloroacetonitrile	10/22/2018	0	Y	y	v				ug/L
EB-4-101818	1832950-12	1-Chlorobutane	10/22/2018	0	Y	y	v				ug/L
EB-4-101818	1832950-12	1,1-Dichloropropanone	10/22/2018	0	Y	y	v				ug/L
EB-4-101818	1832950-12	Methyl acrylate	10/22/2018	0	Y	y	v				ug/L
EB-4-101818	1832950-12	Nitrobenzene	10/22/2018	0	Y	y	v				ug/L
EB-4-101818	1832950-12	2-Nitropropane	10/22/2018	0	Y	y	v				ug/L
EB-4-101818	1832950-12	Methyl ethyl ketone	10/22/2018	10	Y	n	u		10	3.3	ug/L

SDG: 1832950

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
EB-4-101818	1832950-12	1,1,1,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
EB-4-101818	1832950-12	Vinyl chloride	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
EB-4-101818	1832950-12	Ethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-4-101818	1832950-12	Isopropylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-4-101818	1832950-12	trans-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
EB-4-101818	1832950-12	Hexachlorobutadiene	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
EB-4-101818	1832950-12	Methylene chloride	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
EB-4-101818	1832950-12	Methyl t-butyl ether	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-4-101818	1832950-12	Naphthalene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
EB-4-101818	1832950-12	p- & m-Xylenes	10/22/2018	0.5	Y	n	u		0.50	0.34	ug/L
EB-4-101818	1832950-12	Styrene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
EB-4-101818	1832950-12	p-Isopropyltoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-4-101818	1832950-12	1,1,2,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-4-101818	1832950-12	Tetrachloroethene	10/22/2018	0.5	Y	n	u		0.50	0.23	ug/L
EB-4-101818	1832950-12	1,2,3-Trichloropropane	10/22/2018	1	Y	n	u		1.0	0.78	ug/L
EB-4-101818	1832950-12	1,2,3-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
EB-4-101818	1832950-12	1,2,4-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-4-101818	1832950-12	cis-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-4-101818	1832950-12	1,1,1-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
EB-4-101818	1832950-12	1,3,5-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-4-101818	1832950-12	1,1,2-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
EB-4-101818	1832950-12	Trichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
EB-4-101818	1832950-12	Trichlorofluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-4-101818	1832950-12	Toluene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-4-101818	1832950-12	n-Propylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L

SDG: 1832950

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
EB-4-101818	1832950-12	1,1,2-Trichloro-1,2,2-trifluoroethane	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
EB-4-101818	1832950-12	1,2,4-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-22-1	1832950-06	1,1-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-22-1	1832950-06	1,2-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-22-1	1832950-06	1,1-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-22-1	1832950-06	Dichlorodifluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-22-1	1832950-06	1,3-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-22-1	1832950-06	1,2-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-22-1	1832950-06	1,4-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-22-1	1832950-06	cis-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-22-1	1832950-06	trans-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-22-1	1832950-06	1,2-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-22-1	1832950-06	1,3-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-22-1	1832950-06	2,2-Dichloropropane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.18	ug/L
MW-22-1	1832950-06	1,1-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-22-1	1832950-06	cis-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-22-1	1832950-06	Dibromomethane	10/22/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-22-1	1832950-06	Ethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-22-1	1832950-06	Hexachlorobutadiene	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-22-1	1832950-06	Isopropylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-22-1	1832950-06	trans-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-22-1	1832950-06	tert-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-22-1	1832950-06	p-Isopropyltoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-22-1	1832950-06	Pentachloroethane	10/22/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-22-1	1832950-06	Benzene	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-22-1	1832950-06	Bromobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-22-1	1832950-06	Bromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-22-1	1832950-06	Bromodichloromethane	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-22-1	1832950-06	Bromoform	10/22/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-22-1	1832950-06	Bromomethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-22-1	1832950-06	Carbon tetrachloride	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-22-1	1832950-06	sec-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-22-1	1832950-06	1,2-Dibromoethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-22-1	1832950-06	Chlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-22-1	1832950-06	Chloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-22-1	1832950-06	Chloroform	10/22/2018	0.29	Y	y	v j		0.50	0.14	ug/L
MW-22-1	1832950-06	Chloromethane	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-22-1	1832950-06	2-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-22-1	1832950-06	4-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-22-1	1832950-06	Dibromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-22-1	1832950-06	1,2-Dibromo-3-chloropropane	10/22/2018	1	Y	n	u		1.0	0.89	ug/L
MW-22-1	1832950-06	n-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-22-1	1832950-06	Propionitrile	10/22/2018	20	Y	n	u		20	6.2	ug/L
MW-22-1	1832950-06	Carbon disulfide	10/22/2018	1	Y	n	u		1.0	0.48	ug/L
MW-22-1	1832950-06	trans-1,4-Dichloro-2-butene	10/22/2018	5	Y	n	u		5.0	1.8	ug/L
MW-22-1	1832950-06	Diethyl ether	10/22/2018	2	Y	n	u		2.0	0.33	ug/L
MW-22-1	1832950-06	Ethyl methacrylate	10/22/2018	4	Y	n	u		4.0	1.3	ug/L
MW-22-1	1832950-06	Ethyl t-butyl ether	10/22/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
MW-22-1	1832950-06	Hexachloroethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
MW-22-1	1832950-06	2-Hexanone	10/22/2018	10	Y	n	u		10	5.0	ug/L

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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-22-1	1832950-06	Methacrylonitrile	10/22/2018	10	Y	n	u		10	2.3	ug/L
MW-22-1	1832950-06	Methyl ethyl ketone	10/22/2018	10	Y	n	u		10	3.3	ug/L
MW-22-1	1832950-06	t-Butyl alcohol	10/22/2018	10	Y	n	u		10	9.4	ug/L
MW-22-1	1832950-06	Methyl methacrylate	10/22/2018	5	Y	n	u		5.0	1.2	ug/L
MW-22-1	1832950-06	p- & m-Xylenes	10/22/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-22-1	1832950-06	Tetrahydrofuran	10/22/2018	20	Y	n	u		20	5.2	ug/L
MW-22-1	1832950-06	Methylene chloride	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-22-1	1832950-06	o-Xylene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-22-1	1832950-06	Methyl isobutyl ketone	10/22/2018	10	Y	n	u		10	2.4	ug/L
MW-22-1	1832950-06	1-Chlorobutane	10/22/2018	0	Y	y	v				ug/L
MW-22-1	1832950-06	1,1-Dichloropropanone	10/22/2018	0	Y	y	v				ug/L
MW-22-1	1832950-06	Methyl acrylate	10/22/2018	0	Y	y	v				ug/L
MW-22-1	1832950-06	Nitrobenzene	10/22/2018	0	Y	y	v				ug/L
MW-22-1	1832950-06	2-Nitropropane	10/22/2018	0	Y	y	v				ug/L
MW-22-1	1832950-06	Methyl iodide	10/22/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-22-1	1832950-06	1,1,2,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-22-1	1832950-06	Chloroacetonitrile	10/22/2018	0	Y	y	v				ug/L
MW-22-1	1832950-06	t-Amyl Methyl ether	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-22-1	1832950-06	Methyl t-butyl ether	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-22-1	1832950-06	Naphthalene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-22-1	1832950-06	n-Propylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-22-1	1832950-06	1,1,1,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-22-1	1832950-06	Tetrachloroethene	10/22/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-22-1	1832950-06	Toluene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-22-1	1832950-06	1,2,3-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-22-1	1832950-06	1,2,4-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-22-1	1832950-06	1,1,1-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-22-1	1832950-06	1,3,5-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-22-1	1832950-06	Allyl chloride	10/22/2018	5	Y	n	u		5.0	0.47	ug/L
MW-22-1	1832950-06	Acrylonitrile	10/22/2018	5	Y	n	u		5.0	1.5	ug/L
MW-22-1	1832950-06	Styrene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-22-1	1832950-06	Acetone	10/22/2018	10	Y	n	u		10	6.6	ug/L
MW-22-1	1832950-06	Vinyl chloride	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-22-1	1832950-06	1,2,4-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-22-1	1832950-06	1,1,2-Trichloro-1,2,2-trifluoroethane	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-22-1	1832950-06	1,2,3-Trichloropropane	10/22/2018	1	Y	n	u		1.0	0.78	ug/L
MW-22-1	1832950-06	Trichlorofluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-22-1	1832950-06	Trichloroethene	10/22/2018	0.59	Y	y	v		0.50	0.19	ug/L
MW-22-1	1832950-06	1,1,2-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-22-2	1832950-05	Ethyl methacrylate	10/22/2018	4	Y	n	u		4.0	1.3	ug/L
MW-22-2	1832950-05	1,2,4-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-22-2	1832950-05	t-Amyl Methyl ether	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-22-2	1832950-05	trans-1,4-Dichloro-2-butene	10/22/2018	5	Y	n	u		5.0	1.8	ug/L
MW-22-2	1832950-05	Carbon disulfide	10/22/2018	1	Y	n	u		1.0	0.48	ug/L
MW-22-2	1832950-05	Ethyl t-butyl ether	10/22/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
MW-22-2	1832950-05	t-Butyl alcohol	10/22/2018	10	Y	n	u		10	9.4	ug/L
MW-22-2	1832950-05	Diethyl ether	10/22/2018	2	Y	n	u		2.0	0.33	ug/L
MW-22-2	1832950-05	Allyl chloride	10/22/2018	5	Y	n	u		5.0	0.47	ug/L
MW-22-2	1832950-05	Acrylonitrile	10/22/2018	5	Y	n	u		5.0	1.5	ug/L
MW-22-2	1832950-05	Acetone	10/22/2018	10	Y	n	u		10	6.6	ug/L



SDG: 1832950

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-22-2	1832950-05	1,3,5-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-22-2	1832950-05	1,2,3-Trichloropropane	10/22/2018	1	Y	n	u		1.0	0.78	ug/L
MW-22-2	1832950-05	Hexachloroethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
MW-22-2	1832950-05	1,1-Dichloropropanone	10/22/2018	0	Y	y	v				ug/L
MW-22-2	1832950-05	1,1,2-Trichloro-1,2,2-trifluoroethane	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-22-2	1832950-05	Vinyl chloride	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-22-2	1832950-05	Tetrahydrofuran	10/22/2018	20	Y	n	u		20	5.2	ug/L
MW-22-2	1832950-05	Trichlorofluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-22-2	1832950-05	Dichlorodifluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-22-2	1832950-05	2-Nitropropane	10/22/2018	0	Y	y	v				ug/L
MW-22-2	1832950-05	Nitrobenzene	10/22/2018	0	Y	y	v				ug/L
MW-22-2	1832950-05	Methyl acrylate	10/22/2018	0	Y	y	v				ug/L
MW-22-2	1832950-05	1-Chlorobutane	10/22/2018	0	Y	y	v				ug/L
MW-22-2	1832950-05	Chloroacetonitrile	10/22/2018	0	Y	y	v				ug/L
MW-22-2	1832950-05	p- & m-Xylenes	10/22/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-22-2	1832950-05	2-Hexanone	10/22/2018	10	Y	n	u		10	5.0	ug/L
MW-22-2	1832950-05	Propionitrile	10/22/2018	20	Y	n	u		20	6.2	ug/L
MW-22-2	1832950-05	Pentachloroethane	10/22/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-22-2	1832950-05	Methyl methacrylate	10/22/2018	5	Y	n	u		5.0	1.2	ug/L
MW-22-2	1832950-05	Methyl isobutyl ketone	10/22/2018	10	Y	n	u		10	2.4	ug/L
MW-22-2	1832950-05	Methyl iodide	10/22/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-22-2	1832950-05	Methyl ethyl ketone	10/22/2018	10	Y	n	u		10	3.3	ug/L
MW-22-2	1832950-05	Methacrylonitrile	10/22/2018	10	Y	n	u		10	2.3	ug/L
MW-22-2	1832950-05	o-Xylene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-22-2	1832950-05	Chloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L

SDG: 1832950

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-22-2	1832950-05	1,1-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-22-2	1832950-05	1,4-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-22-2	1832950-05	1,3-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-22-2	1832950-05	1,2-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-22-2	1832950-05	Dibromomethane	10/22/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-22-2	1832950-05	1,2-Dibromoethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-22-2	1832950-05	1,2-Dibromo-3-chloropropane	10/22/2018	1	Y	n	u		1.0	0.89	ug/L
MW-22-2	1832950-05	Dibromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-22-2	1832950-05	4-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-22-2	1832950-05	2-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-22-2	1832950-05	1,1-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-22-2	1832950-05	Chloroform	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-22-2	1832950-05	n-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-22-2	1832950-05	Chlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-22-2	1832950-05	Carbon tetrachloride	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-22-2	1832950-05	tert-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-22-2	1832950-05	sec-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-22-2	1832950-05	Bromomethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-22-2	1832950-05	Bromodichloromethane	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-22-2	1832950-05	Bromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-22-2	1832950-05	Bromobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-22-2	1832950-05	Benzene	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-22-2	1832950-05	Trichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-22-2	1832950-05	1,2-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-22-2	1832950-05	Chloromethane	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L

SDG: 1832950

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-22-2	1832950-05	1,1,2,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-22-2	1832950-05	Bromoform	10/22/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-22-2	1832950-05	cis-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-22-2	1832950-05	1,1,1-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-22-2	1832950-05	1,1,2-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-22-2	1832950-05	1,2,4-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-22-2	1832950-05	1,2,3-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-22-2	1832950-05	Toluene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-22-2	1832950-05	Tetrachloroethene	10/22/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-22-2	1832950-05	1,1,1,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-22-2	1832950-05	Styrene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-22-2	1832950-05	n-Propylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-22-2	1832950-05	Naphthalene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-22-2	1832950-05	Methyl t-butyl ether	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-22-2	1832950-05	Methylene chloride	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-22-2	1832950-05	1,1-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-22-2	1832950-05	trans-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-22-2	1832950-05	p-Isopropyltoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-22-2	1832950-05	1,2-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-22-2	1832950-05	1,3-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-22-2	1832950-05	2,2-Dichloropropane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.18	ug/L
MW-22-2	1832950-05	cis-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-22-2	1832950-05	trans-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-22-2	1832950-05	Ethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-22-2	1832950-05	Hexachlorobutadiene	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L

SDG: 1832950

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-22-2	1832950-05	Isopropylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-22-3	1832950-04	1,1-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-22-3	1832950-04	1,2-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-22-3	1832950-04	Naphthalene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-22-3	1832950-04	1,1-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-22-3	1832950-04	1,1-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-22-3	1832950-04	trans-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-22-3	1832950-04	1,2-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-22-3	1832950-04	1,3-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-22-3	1832950-04	2,2-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-22-3	1832950-04	cis-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-22-3	1832950-04	n-Propylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-22-3	1832950-04	cis-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-22-3	1832950-04	trans-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-22-3	1832950-04	p-Isopropyltoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-22-3	1832950-04	Hexachlorobutadiene	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-22-3	1832950-04	Isopropylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-22-3	1832950-04	Dichlorodifluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-22-3	1832950-04	Carbon tetrachloride	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-22-3	1832950-04	Methylene chloride	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-22-3	1832950-04	Methyl t-butyl ether	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-22-3	1832950-04	Ethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-22-3	1832950-04	Chlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-22-3	1832950-04	Bromoform	10/22/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-22-3	1832950-04	Bromomethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L

SDG: 1832950

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-22-3	1832950-04	n-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-22-3	1832950-04	Trichlorofluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-22-3	1832950-04	Styrene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-22-3	1832950-04	Benzene	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-22-3	1832950-04	Bromobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-22-3	1832950-04	Bromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-22-3	1832950-04	Bromodichloromethane	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-22-3	1832950-04	Chloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-22-3	1832950-04	tert-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-22-3	1832950-04	1,4-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-22-3	1832950-04	Chloroform	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-22-3	1832950-04	Chloromethane	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-22-3	1832950-04	2-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-22-3	1832950-04	4-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-22-3	1832950-04	Dibromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-22-3	1832950-04	1,2-Dibromo-3-chloropropane	10/22/2018	1	Y	n	u		1.0	0.89	ug/L
MW-22-3	1832950-04	1,2-Dibromoethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-22-3	1832950-04	Dibromomethane	10/22/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-22-3	1832950-04	1,2-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-22-3	1832950-04	1,3-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-22-3	1832950-04	sec-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-22-3	1832950-04	Tetrahydrofuran	10/22/2018	20	Y	n	u		20	5.2	ug/L
MW-22-3	1832950-04	Ethyl t-butyl ether	10/22/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
MW-22-3	1832950-04	Hexachloroethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
MW-22-3	1832950-04	2-Hexanone	10/22/2018	10	Y	n	u		10	5.0	ug/L

SDG: 1832950

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-22-3	1832950-04	Methacrylonitrile	10/22/2018	10	Y	n	u		10	2.3	ug/L
MW-22-3	1832950-04	Methyl ethyl ketone	10/22/2018	10	Y	n	u		10	3.3	ug/L
MW-22-3	1832950-04	Methyl iodide	10/22/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-22-3	1832950-04	Methyl isobutyl ketone	10/22/2018	10	Y	n	u		10	2.4	ug/L
MW-22-3	1832950-04	Methyl methacrylate	10/22/2018	5	Y	n	u		5.0	1.2	ug/L
MW-22-3	1832950-04	Ethyl methacrylate	10/22/2018	4	Y	n	u		4.0	1.3	ug/L
MW-22-3	1832950-04	Propionitrile	10/22/2018	20	Y	n	u		20	6.2	ug/L
MW-22-3	1832950-04	1-Chlorobutane	10/22/2018	0	Y	y	v				ug/L
MW-22-3	1832950-04	p- & m-Xylenes	10/22/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-22-3	1832950-04	o-Xylene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-22-3	1832950-04	Chloroacetonitrile	10/22/2018	0	Y	y	v				ug/L
MW-22-3	1832950-04	1,1,1,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-22-3	1832950-04	1,1-Dichloropropanone	10/22/2018	0	Y	y	v				ug/L
MW-22-3	1832950-04	1,1,2-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-22-3	1832950-04	Nitrobenzene	10/22/2018	0	Y	y	v				ug/L
MW-22-3	1832950-04	2-Nitropropane	10/22/2018	0	Y	y	v				ug/L
MW-22-3	1832950-04	Pentachloroethane	10/22/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-22-3	1832950-04	1,2,4-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-22-3	1832950-04	Methyl acrylate	10/22/2018	0	Y	y	v				ug/L
MW-22-3	1832950-04	Diethyl ether	10/22/2018	2	Y	n	u		2.0	0.33	ug/L
MW-22-3	1832950-04	1,1,2,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-22-3	1832950-04	Tetrachloroethene	10/22/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-22-3	1832950-04	1,2,3-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-22-3	1832950-04	1,1,1-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-22-3	1832950-04	Trichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L

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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-22-3	1832950-04	1,2,3-Trichloropropane	10/22/2018	1	Y	n	u		1.0	0.78	ug/L
MW-22-3	1832950-04	1,1,2-Trichloro-1,2,2-trifluoroethane	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-22-3	1832950-04	1,2,4-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-22-3	1832950-04	Allyl chloride	10/22/2018	5	Y	n	u		5.0	0.47	ug/L
MW-22-3	1832950-04	trans-1,4-Dichloro-2-butene	10/22/2018	5	Y	n	u		5.0	1.8	ug/L
MW-22-3	1832950-04	Toluene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-22-3	1832950-04	1,3,5-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-22-3	1832950-04	Vinyl chloride	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-22-3	1832950-04	Acetone	10/22/2018	10	Y	n	u		10	6.6	ug/L
MW-22-3	1832950-04	Acrylonitrile	10/22/2018	5	Y	n	u		5.0	1.5	ug/L
MW-22-3	1832950-04	t-Butyl alcohol	10/22/2018	10	Y	n	u		10	9.4	ug/L
MW-22-3	1832950-04	Carbon disulfide	10/22/2018	1	Y	n	u		1.0	0.48	ug/L
MW-22-3	1832950-04	t-Amyl Methyl ether	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-22-4	1832950-03	Diethyl ether	10/22/2018	2	Y	n	u		2.0	0.33	ug/L
MW-22-4	1832950-03	Ethyl methacrylate	10/22/2018	4	Y	n	u		4.0	1.3	ug/L
MW-22-4	1832950-03	Hexachloroethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
MW-22-4	1832950-03	t-Amyl Methyl ether	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-22-4	1832950-03	2-Hexanone	10/22/2018	10	Y	n	u		10	5.0	ug/L
MW-22-4	1832950-03	Methacrylonitrile	10/22/2018	10	Y	n	u		10	2.3	ug/L
MW-22-4	1832950-03	Methyl ethyl ketone	10/22/2018	10	Y	n	u		10	3.3	ug/L
MW-22-4	1832950-03	Methyl iodide	10/22/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-22-4	1832950-03	Ethyl t-butyl ether	10/22/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
MW-22-4	1832950-03	trans-1,4-Dichloro-2-butene	10/22/2018	5	Y	n	u		5.0	1.8	ug/L
MW-22-4	1832950-03	Carbon disulfide	10/22/2018	1	Y	n	u		1.0	0.48	ug/L
MW-22-4	1832950-03	t-Butyl alcohol	10/22/2018	10	Y	n	u		10	9.4	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-22-4	1832950-03	Allyl chloride	10/22/2018	5	Y	n	u		5.0	0.47	ug/L
MW-22-4	1832950-03	Methyl isobutyl ketone	10/22/2018	10	Y	n	u		10	2.4	ug/L
MW-22-4	1832950-03	2-Nitropropane	10/22/2018	0	Y	y	v				ug/L
MW-22-4	1832950-03	Acrylonitrile	10/22/2018	5	Y	n	u		5.0	1.5	ug/L
MW-22-4	1832950-03	Acetone	10/22/2018	10	Y	n	u		10	6.6	ug/L
MW-22-4	1832950-03	1,3,5-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-22-4	1832950-03	Vinyl chloride	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-22-4	1832950-03	1,2,4-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-22-4	1832950-03	Nitrobenzene	10/22/2018	0	Y	y	v				ug/L
MW-22-4	1832950-03	Bromodichloromethane	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-22-4	1832950-03	Bromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-22-4	1832950-03	Bromobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-22-4	1832950-03	Benzene	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-22-4	1832950-03	Bromomethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-22-4	1832950-03	sec-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-22-4	1832950-03	Bromoform	10/22/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-22-4	1832950-03	Methyl acrylate	10/22/2018	0	Y	y	v				ug/L
MW-22-4	1832950-03	1,1,1,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-22-4	1832950-03	Methyl methacrylate	10/22/2018	5	Y	n	u		5.0	1.2	ug/L
MW-22-4	1832950-03	1,1-Dichloropropanone	10/22/2018	0	Y	y	v				ug/L
MW-22-4	1832950-03	1-Chlorobutane	10/22/2018	0	Y	y	v				ug/L
MW-22-4	1832950-03	Chloroacetonitrile	10/22/2018	0	Y	y	v				ug/L
MW-22-4	1832950-03	o-Xylene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-22-4	1832950-03	p- & m-Xylenes	10/22/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-22-4	1832950-03	Tetrahydrofuran	10/22/2018	20	Y	n	u		20	5.2	ug/L



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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-22-4	1832950-03	Propionitrile	10/22/2018	20	Y	n	u		20	6.2	ug/L
MW-22-4	1832950-03	Pentachloroethane	10/22/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-22-4	1832950-03	n-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-22-4	1832950-03	1,2-Dibromo-3-chloropropane	10/22/2018	1	Y	n	u		1.0	0.89	ug/L
MW-22-4	1832950-03	1,2-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-22-4	1832950-03	trans-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-22-4	1832950-03	cis-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-22-4	1832950-03	1,1-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-22-4	1832950-03	1,2-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-22-4	1832950-03	1,1-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-22-4	1832950-03	Dichlorodifluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-22-4	1832950-03	Chloromethane	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-22-4	1832950-03	1,3-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-22-4	1832950-03	1,3-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-22-4	1832950-03	1,2-Dibromoethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-22-4	1832950-03	1,4-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-22-4	1832950-03	Dibromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-22-4	1832950-03	4-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-22-4	1832950-03	2-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-22-4	1832950-03	Tetrachloroethene	10/22/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-22-4	1832950-03	tert-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-22-4	1832950-03	Carbon tetrachloride	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-22-4	1832950-03	Chlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-22-4	1832950-03	Chloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-22-4	1832950-03	Chloroform	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-22-4	1832950-03	Dibromomethane	10/22/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-22-4	1832950-03	1,1,2,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-22-4	1832950-03	1,2,3-Trichloropropane	10/22/2018	1	Y	n	u		1.0	0.78	ug/L
MW-22-4	1832950-03	Trichlorofluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-22-4	1832950-03	Trichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-22-4	1832950-03	1,1,2-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-22-4	1832950-03	1,1,1-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-22-4	1832950-03	1,2-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-22-4	1832950-03	2,2-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-22-4	1832950-03	1,2,4-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-22-4	1832950-03	Toluene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-22-4	1832950-03	1,1,2-Trichloro-1,2,2-trifluoroethane	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-22-4	1832950-03	Styrene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-22-4	1832950-03	Isopropylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-22-4	1832950-03	Naphthalene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-22-4	1832950-03	Methyl t-butyl ether	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-22-4	1832950-03	Methylene chloride	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-22-4	1832950-03	1,1-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-22-4	1832950-03	p-Isopropyltoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-22-4	1832950-03	n-Propylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-22-4	1832950-03	cis-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-22-4	1832950-03	1,2,3-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-22-4	1832950-03	Hexachlorobutadiene	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-22-4	1832950-03	Ethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-22-4	1832950-03	trans-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-22-5	1832950-02	Carbon disulfide	10/22/2018	1	Y	n	u		1.0	0.48	ug/L
MW-22-5	1832950-02	trans-1,4-Dichloro-2-butene	10/22/2018	5	Y	n	u		5.0	1.8	ug/L
MW-22-5	1832950-02	Diethyl ether	10/22/2018	2	Y	n	u		2.0	0.33	ug/L
MW-22-5	1832950-02	Ethyl t-butyl ether	10/22/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
MW-22-5	1832950-02	Hexachloroethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
MW-22-5	1832950-02	t-Butyl alcohol	10/22/2018	10	Y	n	u		10	9.4	ug/L
MW-22-5	1832950-02	1,2,3-Trichloropropane	10/22/2018	1	Y	n	u		1.0	0.78	ug/L
MW-22-5	1832950-02	2-Hexanone	10/22/2018	10	Y	n	u		10	5.0	ug/L
MW-22-5	1832950-02	Ethyl methacrylate	10/22/2018	4	Y	n	u		4.0	1.3	ug/L
MW-22-5	1832950-02	t-Amyl Methyl ether	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-22-5	1832950-02	Allyl chloride	10/22/2018	5	Y	n	u		5.0	0.47	ug/L
MW-22-5	1832950-02	Acrylonitrile	10/22/2018	5	Y	n	u		5.0	1.5	ug/L
MW-22-5	1832950-02	Acetone	10/22/2018	10	Y	n	u		10	6.6	ug/L
MW-22-5	1832950-02	Vinyl chloride	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-22-5	1832950-02	1,3,5-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-22-5	1832950-02	1,1,2-Trichloro-1,2,2-trifluoroethane	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-22-5	1832950-02	Trichlorofluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-22-5	1832950-02	Methacrylonitrile	10/22/2018	10	Y	n	u		10	2.3	ug/L
MW-22-5	1832950-02	1,2,4-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-22-5	1832950-02	Chloroacetonitrile	10/22/2018	0	Y	y	v				ug/L
MW-22-5	1832950-02	1,1,1-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-22-5	1832950-02	Bromodichloromethane	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-22-5	1832950-02	1,1,2-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-22-5	1832950-02	Bromobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-22-5	1832950-02	Bromoform	10/22/2018	0.5	Y	n	u		0.50	0.46	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-22-5	1832950-02	2-Nitropropane	10/22/2018	0	Y	y	v				ug/L
MW-22-5	1832950-02	Nitrobenzene	10/22/2018	0	Y	y	v				ug/L
MW-22-5	1832950-02	Methyl acrylate	10/22/2018	0	Y	y	v				ug/L
MW-22-5	1832950-02	Bromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-22-5	1832950-02	1-Chlorobutane	10/22/2018	0	Y	y	v				ug/L
MW-22-5	1832950-02	Methyl ethyl ketone	10/22/2018	10	Y	n	u		10	3.3	ug/L
MW-22-5	1832950-02	o-Xylene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-22-5	1832950-02	p- & m-Xylenes	10/22/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-22-5	1832950-02	Tetrahydrofuran	10/22/2018	20	Y	n	u		20	5.2	ug/L
MW-22-5	1832950-02	Propionitrile	10/22/2018	20	Y	n	u		20	6.2	ug/L
MW-22-5	1832950-02	Pentachloroethane	10/22/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-22-5	1832950-02	Methyl methacrylate	10/22/2018	5	Y	n	u		5.0	1.2	ug/L
MW-22-5	1832950-02	Methyl isobutyl ketone	10/22/2018	10	Y	n	u		10	2.4	ug/L
MW-22-5	1832950-02	Methyl iodide	10/22/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-22-5	1832950-02	1,1-Dichloropropanone	10/22/2018	0	Y	y	v				ug/L
MW-22-5	1832950-02	4-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-22-5	1832950-02	1,1-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-22-5	1832950-02	1,2-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-22-5	1832950-02	1,1-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-22-5	1832950-02	Dichlorodifluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-22-5	1832950-02	1,4-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-22-5	1832950-02	1,3-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-22-5	1832950-02	1,2-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-22-5	1832950-02	tert-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-22-5	1832950-02	1,2-Dibromoethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L

SDG: 1832950

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-22-5	1832950-02	cis-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-22-5	1832950-02	Dibromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-22-5	1832950-02	Dibromomethane	10/22/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-22-5	1832950-02	2-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-22-5	1832950-02	Chloromethane	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-22-5	1832950-02	Chloroform	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-22-5	1832950-02	Chloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-22-5	1832950-02	Chlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-22-5	1832950-02	Carbon tetrachloride	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-22-5	1832950-02	Trichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-22-5	1832950-02	sec-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-22-5	1832950-02	n-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-22-5	1832950-02	Bromomethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-22-5	1832950-02	Benzene	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-22-5	1832950-02	Toluene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-22-5	1832950-02	1,2,4-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-22-5	1832950-02	1,2-Dibromo-3-chloropropane	10/22/2018	1	Y	n	u		1.0	0.89	ug/L
MW-22-5	1832950-02	1,2,3-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-22-5	1832950-02	trans-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-22-5	1832950-02	Tetrachloroethene	10/22/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-22-5	1832950-02	1,1,2,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-22-5	1832950-02	1,1,1,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-22-5	1832950-02	Styrene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-22-5	1832950-02	n-Propylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-22-5	1832950-02	Naphthalene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-22-5	1832950-02	Methyl t-butyl ether	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-22-5	1832950-02	2,2-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-22-5	1832950-02	Methylene chloride	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-22-5	1832950-02	1,3-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-22-5	1832950-02	1,1-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-22-5	1832950-02	1,2-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-22-5	1832950-02	cis-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-22-5	1832950-02	trans-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-22-5	1832950-02	Ethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-22-5	1832950-02	Hexachlorobutadiene	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-22-5	1832950-02	Isopropylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-22-5	1832950-02	p-Isopropyltoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-1	1832950-11	Ethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-24-1	1832950-11	trans-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-24-1	1832950-11	1,4-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-24-1	1832950-11	Dichlorodifluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-24-1	1832950-11	1,1-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-24-1	1832950-11	1,2-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-24-1	1832950-11	1,1-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-24-1	1832950-11	cis-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-24-1	1832950-11	1,3-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-24-1	1832950-11	1,2-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-24-1	1832950-11	1,3-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-24-1	1832950-11	2,2-Dichloropropane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.18	ug/L
MW-24-1	1832950-11	1,1-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-24-1	1832950-11	p-Isopropyltoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-1	1832950-11	trans-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-24-1	1832950-11	Hexachlorobutadiene	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-24-1	1832950-11	Isopropylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-1	1832950-11	Methyl t-butyl ether	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-1	1832950-11	Methylene chloride	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-24-1	1832950-11	cis-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-1	1832950-11	Chlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-1	1832950-11	Naphthalene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-24-1	1832950-11	Carbon disulfide	10/22/2018	1	Y	n	u		1.0	0.48	ug/L
MW-24-1	1832950-11	Bromobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-24-1	1832950-11	Bromodichloromethane	10/22/2018	0.21	Y	y	v j		0.50	0.20	ug/L
MW-24-1	1832950-11	Bromoform	10/22/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-24-1	1832950-11	Bromomethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-24-1	1832950-11	n-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-24-1	1832950-11	sec-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-24-1	1832950-11	Benzene	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-24-1	1832950-11	Carbon tetrachloride	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-24-1	1832950-11	1,2-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-24-1	1832950-11	Chloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-24-1	1832950-11	Chloroform	10/22/2018	1.8	Y	y	v		0.50	0.14	ug/L
MW-24-1	1832950-11	Chloromethane	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-24-1	1832950-11	2-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-1	1832950-11	4-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-24-1	1832950-11	Dibromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L

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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-24-1	1832950-11	1,2-Dibromo-3-chloropropane	10/22/2018	1	Y	n	u		1.0	0.89	ug/L
MW-24-1	1832950-11	1,2-Dibromoethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-24-1	1832950-11	Dibromomethane	10/22/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-24-1	1832950-11	tert-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-24-1	1832950-11	Propionitrile	10/22/2018	20	Y	n	u		20	6.2	ug/L
MW-24-1	1832950-11	Diethyl ether	10/22/2018	2	Y	n	u		2.0	0.33	ug/L
MW-24-1	1832950-11	Ethyl methacrylate	10/22/2018	4	Y	n	u		4.0	1.3	ug/L
MW-24-1	1832950-11	Ethyl t-butyl ether	10/22/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
MW-24-1	1832950-11	Hexachloroethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
MW-24-1	1832950-11	2-Hexanone	10/22/2018	10	Y	n	u		10	5.0	ug/L
MW-24-1	1832950-11	Methacrylonitrile	10/22/2018	10	Y	n	u		10	2.3	ug/L
MW-24-1	1832950-11	Methyl ethyl ketone	10/22/2018	10	Y	n	u		10	3.3	ug/L
MW-24-1	1832950-11	Methyl iodide	10/22/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-24-1	1832950-11	Methyl isobutyl ketone	10/22/2018	10	Y	n	u		10	2.4	ug/L
MW-24-1	1832950-11	trans-1,4-Dichloro-2-butene	10/22/2018	5	Y	n	u		5.0	1.8	ug/L
MW-24-1	1832950-11	Pentachloroethane	10/22/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-24-1	1832950-11	Nitrobenzene	10/22/2018	0	Y	y	v				ug/L
MW-24-1	1832950-11	Tetrahydrofuran	10/22/2018	20	Y	n	u		20	5.2	ug/L
MW-24-1	1832950-11	p- & m-Xylenes	10/22/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-24-1	1832950-11	o-Xylene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-24-1	1832950-11	Chloroacetonitrile	10/22/2018	0	Y	y	v				ug/L
MW-24-1	1832950-11	1-Chlorobutane	10/22/2018	0	Y	y	v				ug/L
MW-24-1	1832950-11	1,1-Dichloropropanone	10/22/2018	0	Y	y	v				ug/L
MW-24-1	1832950-11	Methyl acrylate	10/22/2018	0	Y	y	v				ug/L
MW-24-1	1832950-11	n-Propylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L



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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-24-1	1832950-11	t-Amyl Methyl ether	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-24-1	1832950-11	Methyl methacrylate	10/22/2018	5	Y	n	u		5.0	1.2	ug/L
MW-24-1	1832950-11	1,1,1-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-24-1	1832950-11	1,1,1,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-24-1	1832950-11	Styrene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-24-1	1832950-11	Tetrachloroethene	10/22/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-24-1	1832950-11	Toluene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-24-1	1832950-11	2-Nitropropane	10/22/2018	0	Y	y	v				ug/L
MW-24-1	1832950-11	1,2,4-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-24-1	1832950-11	1,1,2,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-24-1	1832950-11	1,1,2-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-24-1	1832950-11	Trichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-24-1	1832950-11	Trichlorofluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-1	1832950-11	Bromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-24-1	1832950-11	1,1,2-Trichloro-1,2,2-trifluoroethane	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-24-1	1832950-11	1,2,4-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-24-1	1832950-11	1,3,5-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-1	1832950-11	Vinyl chloride	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-24-1	1832950-11	Acetone	10/22/2018	10	Y	n	u		10	6.6	ug/L
MW-24-1	1832950-11	Acrylonitrile	10/22/2018	5	Y	n	u		5.0	1.5	ug/L
MW-24-1	1832950-11	Allyl chloride	10/22/2018	5	Y	n	u		5.0	0.47	ug/L
MW-24-1	1832950-11	1,2,3-Trichloropropane	10/22/2018	1	Y	n	u		1.0	0.78	ug/L
MW-24-1	1832950-11	1,2,3-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-24-1	1832950-11	t-Butyl alcohol	10/22/2018	10	Y	n	u		10	9.4	ug/L
MW-24-2	1832950-10	Vinyl chloride	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-24-2	1832950-10	Acetone	10/22/2018	10	Y	n	u		10	6.6	ug/L
MW-24-2	1832950-10	Acrylonitrile	10/22/2018	5	Y	n	u		5.0	1.5	ug/L
MW-24-2	1832950-10	Allyl chloride	10/22/2018	5	Y	n	u		5.0	0.47	ug/L
MW-24-2	1832950-10	t-Amyl Methyl ether	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-24-2	1832950-10	t-Butyl alcohol	10/22/2018	10	Y	n	u		10	9.4	ug/L
MW-24-2	1832950-10	trans-1,4-Dichloro-2-butene	10/22/2018	5	Y	n	u		5.0	1.8	ug/L
MW-24-2	1832950-10	Carbon disulfide	10/22/2018	1	Y	n	u		1.0	0.48	ug/L
MW-24-2	1832950-10	1,3,5-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-2	1832950-10	1,2,4-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-24-2	1832950-10	1,1,2-Trichloro-1,2,2-trifluoroethane	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-24-2	1832950-10	1,2,3-Trichloropropane	10/22/2018	1	Y	n	u		1.0	0.78	ug/L
MW-24-2	1832950-10	Trichlorofluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-2	1832950-10	Trichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-24-2	1832950-10	1,1,2-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-24-2	1832950-10	1,1,1-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-24-2	1832950-10	1,2,3-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-24-2	1832950-10	Pentachloroethane	10/22/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-24-2	1832950-10	Toluene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-24-2	1832950-10	1,2,4-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-24-2	1832950-10	Propionitrile	10/22/2018	20	Y	n	u		20	6.2	ug/L
MW-24-2	1832950-10	Dichlorodifluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-24-2	1832950-10	Tetrachloroethene	10/22/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-24-2	1832950-10	Nitrobenzene	10/22/2018	0	Y	y	v				ug/L
MW-24-2	1832950-10	Methyl acrylate	10/22/2018	0	Y	y	v				ug/L
MW-24-2	1832950-10	1,1-Dichloropropanone	10/22/2018	0	Y	y	v				ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-24-2	1832950-10	1-Chlorobutane	10/22/2018	0	Y	y	v				ug/L
MW-24-2	1832950-10	Chloroacetonitrile	10/22/2018	0	Y	y	v				ug/L
MW-24-2	1832950-10	o-Xylene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-24-2	1832950-10	Methyl isobutyl ketone	10/22/2018	10	Y	n	u		10	2.4	ug/L
MW-24-2	1832950-10	Tetrahydrofuran	10/22/2018	20	Y	n	u		20	5.2	ug/L
MW-24-2	1832950-10	Diethyl ether	10/22/2018	2	Y	n	u		2.0	0.33	ug/L
MW-24-2	1832950-10	Methyl methacrylate	10/22/2018	5	Y	n	u		5.0	1.2	ug/L
MW-24-2	1832950-10	2-Nitropropane	10/22/2018	0	Y	y	v				ug/L
MW-24-2	1832950-10	Methyl iodide	10/22/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-24-2	1832950-10	Methyl ethyl ketone	10/22/2018	10	Y	n	u		10	3.3	ug/L
MW-24-2	1832950-10	Methacrylonitrile	10/22/2018	10	Y	n	u		10	2.3	ug/L
MW-24-2	1832950-10	2-Hexanone	10/22/2018	10	Y	n	u		10	5.0	ug/L
MW-24-2	1832950-10	Hexachloroethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
MW-24-2	1832950-10	Ethyl t-butyl ether	10/22/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
MW-24-2	1832950-10	Ethyl methacrylate	10/22/2018	4	Y	n	u		4.0	1.3	ug/L
MW-24-2	1832950-10	p- & m-Xylenes	10/22/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-24-2	1832950-10	Carbon tetrachloride	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-24-2	1832950-10	1,2-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-24-2	1832950-10	1,2-Dibromoethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-24-2	1832950-10	1,2-Dibromo-3-chloropropane	10/22/2018	1	Y	n	u		1.0	0.89	ug/L
MW-24-2	1832950-10	Dibromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-24-2	1832950-10	4-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-24-2	1832950-10	2-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-2	1832950-10	Chloromethane	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-24-2	1832950-10	Chloroform	10/22/2018	0.2	Y	y	v j		0.50	0.14	ug/L

SDG: 1832950

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-24-2	1832950-10	1,2-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-24-2	1832950-10	Chlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-2	1832950-10	1,3-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-24-2	1832950-10	tert-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-24-2	1832950-10	sec-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-24-2	1832950-10	n-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-24-2	1832950-10	Bromomethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-24-2	1832950-10	Bromoform	10/22/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-24-2	1832950-10	Bromodichloromethane	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-24-2	1832950-10	Bromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-24-2	1832950-10	Bromobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-24-2	1832950-10	Benzene	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-24-2	1832950-10	Chloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-24-2	1832950-10	trans-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-24-2	1832950-10	1,1,1,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-24-2	1832950-10	Styrene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-24-2	1832950-10	n-Propylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-24-2	1832950-10	Naphthalene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-24-2	1832950-10	Methyl t-butyl ether	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-2	1832950-10	Methylene chloride	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-24-2	1832950-10	p-Isopropyltoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-2	1832950-10	Isopropylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-2	1832950-10	Dibromomethane	10/22/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-24-2	1832950-10	Ethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-24-2	1832950-10	1,1,2,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L

SDG: 1832950

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-24-2	1832950-10	cis-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-2	1832950-10	1,1-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-24-2	1832950-10	2,2-Dichloropropane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.18	ug/L
MW-24-2	1832950-10	1,3-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-24-2	1832950-10	1,2-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-24-2	1832950-10	trans-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-24-2	1832950-10	cis-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-24-2	1832950-10	1,1-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-24-2	1832950-10	1,1-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-24-2	1832950-10	1,4-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-24-2	1832950-10	Hexachlorobutadiene	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-24-3	1832950-09	Ethyl methacrylate	10/22/2018	4	Y	n	u		4.0	1.3	ug/L
MW-24-3	1832950-09	1,1-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-24-3	1832950-09	1,4-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-24-3	1832950-09	Dichlorodifluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-24-3	1832950-09	1,1-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-24-3	1832950-09	1,2-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-24-3	1832950-09	1,1-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-24-3	1832950-09	cis-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-24-3	1832950-09	trans-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-24-3	1832950-09	1,2-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-24-3	1832950-09	Naphthalene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-24-3	1832950-09	2,2-Dichloropropane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.18	ug/L
MW-24-3	1832950-09	Dibromomethane	10/22/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-24-3	1832950-09	cis-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L

SDG: 1832950

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-24-3	1832950-09	trans-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-24-3	1832950-09	Ethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-24-3	1832950-09	Hexachlorobutadiene	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-24-3	1832950-09	Isopropylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-3	1832950-09	p-Isopropyltoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-3	1832950-09	Methylene chloride	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-24-3	1832950-09	Hexachloroethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
MW-24-3	1832950-09	1,3-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-24-3	1832950-09	Chlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-3	1832950-09	Benzene	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-24-3	1832950-09	Bromobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-24-3	1832950-09	Bromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-24-3	1832950-09	Bromodichloromethane	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-24-3	1832950-09	Bromoform	10/22/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-24-3	1832950-09	Bromomethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-24-3	1832950-09	n-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-24-3	1832950-09	sec-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-24-3	1832950-09	1,3-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-24-3	1832950-09	Carbon tetrachloride	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-24-3	1832950-09	1,2-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-24-3	1832950-09	Chloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-24-3	1832950-09	Chloroform	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-3	1832950-09	Chloromethane	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-24-3	1832950-09	2-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-3	1832950-09	4-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.093	ug/L

SDG: 1832950

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-24-3	1832950-09	Dibromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-24-3	1832950-09	1,2-Dibromo-3-chloropropane	10/22/2018	1	Y	n	u		1.0	0.89	ug/L
MW-24-3	1832950-09	1,2-Dibromoethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-24-3	1832950-09	n-Propylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-24-3	1832950-09	tert-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-24-3	1832950-09	Propionitrile	10/22/2018	20	Y	n	u		20	6.2	ug/L
MW-24-3	1832950-09	Methyl t-butyl ether	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-3	1832950-09	Diethyl ether	10/22/2018	2	Y	n	u		2.0	0.33	ug/L
MW-24-3	1832950-09	Ethyl t-butyl ether	10/22/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
MW-24-3	1832950-09	2-Hexanone	10/22/2018	10	Y	n	u		10	5.0	ug/L
MW-24-3	1832950-09	Methacrylonitrile	10/22/2018	10	Y	n	u		10	2.3	ug/L
MW-24-3	1832950-09	Methyl ethyl ketone	10/22/2018	10	Y	n	u		10	3.3	ug/L
MW-24-3	1832950-09	Methyl iodide	10/22/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-24-3	1832950-09	Methyl isobutyl ketone	10/22/2018	10	Y	n	u		10	2.4	ug/L
MW-24-3	1832950-09	Carbon disulfide	10/22/2018	1	Y	n	u		1.0	0.48	ug/L
MW-24-3	1832950-09	Pentachloroethane	10/22/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-24-3	1832950-09	t-Butyl alcohol	10/22/2018	10	Y	n	u		10	9.4	ug/L
MW-24-3	1832950-09	Tetrahydrofuran	10/22/2018	20	Y	n	u		20	5.2	ug/L
MW-24-3	1832950-09	p- & m-Xylenes	10/22/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-24-3	1832950-09	o-Xylene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-24-3	1832950-09	Chloroacetonitrile	10/22/2018	0	Y	y	v				ug/L
MW-24-3	1832950-09	1-Chlorobutane	10/22/2018	0	Y	y	v				ug/L
MW-24-3	1832950-09	1,1-Dichloropropanone	10/22/2018	0	Y	y	v				ug/L
MW-24-3	1832950-09	Methyl acrylate	10/22/2018	0	Y	y	v				ug/L
MW-24-3	1832950-09	Nitrobenzene	10/22/2018	0	Y	y	v				ug/L

SDG: 1832950

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-24-3	1832950-09	Methyl methacrylate	10/22/2018	5	Y	n	u		5.0	1.2	ug/L
MW-24-3	1832950-09	Trichlorofluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-3	1832950-09	Styrene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-24-3	1832950-09	1,1,1,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-24-3	1832950-09	1,1,2,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-24-3	1832950-09	Tetrachloroethene	10/22/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-24-3	1832950-09	Toluene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-24-3	1832950-09	1,2,3-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-24-3	1832950-09	1,2,4-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-24-3	1832950-09	1,1,1-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-24-3	1832950-09	trans-1,4-Dichloro-2-butene	10/22/2018	5	Y	n	u		5.0	1.8	ug/L
MW-24-3	1832950-09	Trichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-24-3	1832950-09	2-Nitropropane	10/22/2018	0	Y	y	v				ug/L
MW-24-3	1832950-09	1,2,3-Trichloropropane	10/22/2018	1	Y	n	u		1.0	0.78	ug/L
MW-24-3	1832950-09	1,1,2-Trichloro-1,2,2-trifluoroethane	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-24-3	1832950-09	1,2,4-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-24-3	1832950-09	1,3,5-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-3	1832950-09	Vinyl chloride	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-24-3	1832950-09	Acetone	10/22/2018	10	Y	n	u		10	6.6	ug/L
MW-24-3	1832950-09	Acrylonitrile	10/22/2018	5	Y	n	u		5.0	1.5	ug/L
MW-24-3	1832950-09	Allyl chloride	10/22/2018	5	Y	n	u		5.0	0.47	ug/L
MW-24-3	1832950-09	t-Amyl Methyl ether	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-24-3	1832950-09	1,1,2-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-24-4	1832950-08	n-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-24-4	1832950-08	1,2,3-Trichloropropane	10/22/2018	1	Y	n	u		1.0	0.78	ug/L



SDG: 1832950

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-24-4	1832950-08	Carbon disulfide	10/22/2018	1	Y	n	u		1.0	0.48	ug/L
MW-24-4	1832950-08	t-Butyl alcohol	10/22/2018	10	Y	n	u		10	9.4	ug/L
MW-24-4	1832950-08	t-Amyl Methyl ether	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-24-4	1832950-08	Allyl chloride	10/22/2018	5	Y	n	u		5.0	0.47	ug/L
MW-24-4	1832950-08	Acrylonitrile	10/22/2018	5	Y	n	u		5.0	1.5	ug/L
MW-24-4	1832950-08	Acetone	10/22/2018	10	Y	n	u		10	6.6	ug/L
MW-24-4	1832950-08	Vinyl chloride	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-24-4	1832950-08	1,3,5-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-4	1832950-08	Bromoform	10/22/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-24-4	1832950-08	1,1,2-Trichloro-1,2,2-trifluoroethane	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-24-4	1832950-08	Ethyl methacrylate	10/22/2018	4	Y	n	u		4.0	1.3	ug/L
MW-24-4	1832950-08	Trichlorofluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-4	1832950-08	Trichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-24-4	1832950-08	1,1,2-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-24-4	1832950-08	1,1,1-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-24-4	1832950-08	1,2,4-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-24-4	1832950-08	1,2,3-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-24-4	1832950-08	Toluene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-24-4	1832950-08	Tetrachloroethene	10/22/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-24-4	1832950-08	1,2,4-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-24-4	1832950-08	Pentachloroethane	10/22/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-24-4	1832950-08	2-Nitropropane	10/22/2018	0	Y	y	v				ug/L
MW-24-4	1832950-08	Nitrobenzene	10/22/2018	0	Y	y	v				ug/L
MW-24-4	1832950-08	Methyl acrylate	10/22/2018	0	Y	y	v				ug/L
MW-24-4	1832950-08	1,1-Dichloropropanone	10/22/2018	0	Y	y	v				ug/L

SDG: 1832950

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-24-4	1832950-08	1-Chlorobutane	10/22/2018	0	Y	y	v				ug/L
MW-24-4	1832950-08	Chloroacetonitrile	10/22/2018	0	Y	y	v				ug/L
MW-24-4	1832950-08	o-Xylene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-24-4	1832950-08	p- & m-Xylenes	10/22/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-24-4	1832950-08	trans-1,4-Dichloro-2-butene	10/22/2018	5	Y	n	u		5.0	1.8	ug/L
MW-24-4	1832950-08	Propionitrile	10/22/2018	20	Y	n	u		20	6.2	ug/L
MW-24-4	1832950-08	Diethyl ether	10/22/2018	2	Y	n	u		2.0	0.33	ug/L
MW-24-4	1832950-08	Methyl methacrylate	10/22/2018	5	Y	n	u		5.0	1.2	ug/L
MW-24-4	1832950-08	Methyl isobutyl ketone	10/22/2018	10	Y	n	u		10	2.4	ug/L
MW-24-4	1832950-08	Methyl iodide	10/22/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-24-4	1832950-08	Methyl ethyl ketone	10/22/2018	10	Y	n	u		10	3.3	ug/L
MW-24-4	1832950-08	Methacrylonitrile	10/22/2018	10	Y	n	u		10	2.3	ug/L
MW-24-4	1832950-08	2-Hexanone	10/22/2018	10	Y	n	u		10	5.0	ug/L
MW-24-4	1832950-08	Hexachloroethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
MW-24-4	1832950-08	Ethyl t-butyl ether	10/22/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
MW-24-4	1832950-08	Styrene	10/22/2018	0.24	Y	y	v j		0.50	0.12	ug/L
MW-24-4	1832950-08	Tetrahydrofuran	10/22/2018	20	Y	n	u		20	5.2	ug/L
MW-24-4	1832950-08	Chloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-24-4	1832950-08	1,1,2,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-24-4	1832950-08	1,2-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-24-4	1832950-08	Dibromomethane	10/22/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-24-4	1832950-08	1,2-Dibromoethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-24-4	1832950-08	1,2-Dibromo-3-chloropropane	10/22/2018	1	Y	n	u		1.0	0.89	ug/L
MW-24-4	1832950-08	Dibromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-24-4	1832950-08	4-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.093	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-24-4	1832950-08	2-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-4	1832950-08	1,4-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-24-4	1832950-08	Chloroform	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-4	1832950-08	Dichlorodifluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-24-4	1832950-08	Chlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-4	1832950-08	Carbon tetrachloride	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-24-4	1832950-08	tert-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-24-4	1832950-08	sec-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-24-4	1832950-08	Bromomethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-24-4	1832950-08	Bromodichloromethane	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-24-4	1832950-08	Bromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-24-4	1832950-08	Bromobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-24-4	1832950-08	Chloromethane	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-24-4	1832950-08	cis-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-4	1832950-08	Benzene	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-24-4	1832950-08	n-Propylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-24-4	1832950-08	Naphthalene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-24-4	1832950-08	Methyl t-butyl ether	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-4	1832950-08	Methylene chloride	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-24-4	1832950-08	p-Isopropyltoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-4	1832950-08	Isopropylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-4	1832950-08	Hexachlorobutadiene	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-24-4	1832950-08	1,3-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-24-4	1832950-08	trans-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-24-4	1832950-08	1,1,1,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-24-4	1832950-08	1,1-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-24-4	1832950-08	2,2-Dichloropropene	10/22/2018	0.5	Y	n	u	UJ	0.50	0.18	ug/L
MW-24-4	1832950-08	1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-24-4	1832950-08	1,2-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-24-4	1832950-08	trans-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-24-4	1832950-08	cis-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-24-4	1832950-08	1,1-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-24-4	1832950-08	1,2-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-24-4	1832950-08	1,1-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-24-4	1832950-08	Ethylbenzene	10/22/2018	0.15	Y	y	v j		0.50	0.15	ug/L
MW-24-5	1832950-07	Bromoform	10/22/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-24-5	1832950-07	Trichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-24-5	1832950-07	t-Amyl Methyl ether	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-24-5	1832950-07	2-Nitropropane	10/22/2018	0	Y	y	v				ug/L
MW-24-5	1832950-07	Acrylonitrile	10/22/2018	5	Y	n	u		5.0	1.5	ug/L
MW-24-5	1832950-07	Acetone	10/22/2018	10	Y	n	u		10	6.6	ug/L
MW-24-5	1832950-07	Vinyl chloride	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-24-5	1832950-07	1,3,5-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-5	1832950-07	1,2,4-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-24-5	1832950-07	1,1,2-Trichloro-1,2,2-trifluoroethane	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-24-5	1832950-07	n-Propylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-24-5	1832950-07	Trichlorofluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-5	1832950-07	Diethyl ether	10/22/2018	2	Y	n	u		2.0	0.33	ug/L
MW-24-5	1832950-07	1,1,2-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-24-5	1832950-07	1,1,1-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L

SDG: 1832950

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-24-5	1832950-07	1,2,4-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-24-5	1832950-07	1,2,3-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-24-5	1832950-07	Toluene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-24-5	1832950-07	Tetrachloroethene	10/22/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-24-5	1832950-07	1,1,2,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-24-5	1832950-07	1,1,1,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-24-5	1832950-07	Styrene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-24-5	1832950-07	1,2,3-Trichloropropane	10/22/2018	1	Y	n	u		1.0	0.78	ug/L
MW-24-5	1832950-07	Methyl methacrylate	10/22/2018	5	Y	n	u		5.0	1.2	ug/L
MW-24-5	1832950-07	Bromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-24-5	1832950-07	Nitrobenzene	10/22/2018	0	Y	y	v				ug/L
MW-24-5	1832950-07	Methyl acrylate	10/22/2018	0	Y	y	v				ug/L
MW-24-5	1832950-07	1,1-Dichloropropanone	10/22/2018	0	Y	y	v				ug/L
MW-24-5	1832950-07	1-Chlorobutane	10/22/2018	0	Y	y	v				ug/L
MW-24-5	1832950-07	Chloroacetonitrile	10/22/2018	0	Y	y	v				ug/L
MW-24-5	1832950-07	o-Xylene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-24-5	1832950-07	p- & m-Xylenes	10/22/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-24-5	1832950-07	Tetrahydrofuran	10/22/2018	20	Y	n	u		20	5.2	ug/L
MW-24-5	1832950-07	Carbon disulfide	10/22/2018	1	Y	n	u		1.0	0.48	ug/L
MW-24-5	1832950-07	Pentachloroethane	10/22/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-24-5	1832950-07	trans-1,4-Dichloro-2-butene	10/22/2018	5	Y	n	u		5.0	1.8	ug/L
MW-24-5	1832950-07	Methyl isobutyl ketone	10/22/2018	10	Y	n	u		10	2.4	ug/L
MW-24-5	1832950-07	Methyl iodide	10/22/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-24-5	1832950-07	Methyl ethyl ketone	10/22/2018	10	Y	n	u		10	3.3	ug/L
MW-24-5	1832950-07	Methacrylonitrile	10/22/2018	10	Y	n	u		10	2.3	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-24-5	1832950-07	2-Hexanone	10/22/2018	10	Y	n	u		10	5.0	ug/L
MW-24-5	1832950-07	Hexachloroethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
MW-24-5	1832950-07	Ethyl t-butyl ether	10/22/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
MW-24-5	1832950-07	Ethyl methacrylate	10/22/2018	4	Y	n	u		4.0	1.3	ug/L
MW-24-5	1832950-07	Allyl chloride	10/22/2018	5	Y	n	u		5.0	0.47	ug/L
MW-24-5	1832950-07	Propionitrile	10/22/2018	20	Y	n	u		20	6.2	ug/L
MW-24-5	1832950-07	tert-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-24-5	1832950-07	Dibromomethane	10/22/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-24-5	1832950-07	1,2-Dibromoethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-24-5	1832950-07	1,2-Dibromo-3-chloropropane	10/22/2018	1	Y	n	u		1.0	0.89	ug/L
MW-24-5	1832950-07	Dibromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-24-5	1832950-07	4-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-24-5	1832950-07	2-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-5	1832950-07	Chloromethane	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-24-5	1832950-07	1,2-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-24-5	1832950-07	Chlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-5	1832950-07	Chloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-24-5	1832950-07	sec-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-24-5	1832950-07	n-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-24-5	1832950-07	Bromomethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-24-5	1832950-07	Bromodichloromethane	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-24-5	1832950-07	Bromobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-24-5	1832950-07	Benzene	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-24-5	1832950-07	Naphthalene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-24-5	1832950-07	t-Butyl alcohol	10/22/2018	10	Y	n	u		10	9.4	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-24-5	1832950-07	Chloroform	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-5	1832950-07	Isopropylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-5	1832950-07	Methyl t-butyl ether	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-5	1832950-07	Carbon tetrachloride	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-24-5	1832950-07	p-Isopropyltoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-5	1832950-07	1,3-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-24-5	1832950-07	Hexachlorobutadiene	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-24-5	1832950-07	Ethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-24-5	1832950-07	trans-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-24-5	1832950-07	cis-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-24-5	1832950-07	1,1-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-24-5	1832950-07	2,2-Dichloropropane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.18	ug/L
MW-24-5	1832950-07	1,1-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-24-5	1832950-07	Methylene chloride	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-24-5	1832950-07	1,4-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-24-5	1832950-07	Dichlorodifluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-24-5	1832950-07	1,2-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-24-5	1832950-07	1,1-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-24-5	1832950-07	cis-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-24-5	1832950-07	trans-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-24-5	1832950-07	1,2-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-24-5	1832950-07	1,3-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
TB-4-101818	1832950-01	1,2-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-4-101818	1832950-01	1,1,1,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
TB-4-101818	1832950-01	Isopropylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L

SDG: 1832950

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
TB-4-101818	1832950-01	2,2-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
TB-4-101818	1832950-01	1,1-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
TB-4-101818	1832950-01	trans-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-4-101818	1832950-01	cis-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-4-101818	1832950-01	trans-1,3-Dichloropropene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
TB-4-101818	1832950-01	Ethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-4-101818	1832950-01	Hexachlorobutadiene	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
TB-4-101818	1832950-01	1,3-Dichloropropane	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
TB-4-101818	1832950-01	p-Isopropyltoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-4-101818	1832950-01	Methylene chloride	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
TB-4-101818	1832950-01	Methyl t-butyl ether	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-4-101818	1832950-01	Naphthalene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
TB-4-101818	1832950-01	Styrene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
TB-4-101818	1832950-01	Bromomethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
TB-4-101818	1832950-01	1,1,2,2-Tetrachloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-4-101818	1832950-01	1,2,3-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
TB-4-101818	1832950-01	Tetrachloroethene	10/22/2018	0.5	Y	n	u		0.50	0.23	ug/L
TB-4-101818	1832950-01	Toluene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-4-101818	1832950-01	cis-1,2-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
TB-4-101818	1832950-01	n-Propylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.12	ug/L
TB-4-101818	1832950-01	4-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.093	ug/L
TB-4-101818	1832950-01	1,2,4-Trichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-4-101818	1832950-01	sec-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
TB-4-101818	1832950-01	n-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-4-101818	1832950-01	Bromoform	10/22/2018	0.5	Y	n	u		0.50	0.46	ug/L



SDG: 1832950

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
TB-4-101818	1832950-01	Carbon tetrachloride	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-4-101818	1832950-01	Chlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-4-101818	1832950-01	Bromodichloromethane	10/22/2018	0.5	Y	n	u		0.50	0.20	ug/L
TB-4-101818	1832950-01	Chloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-4-101818	1832950-01	Chloroform	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-4-101818	1832950-01	tert-Butylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
TB-4-101818	1832950-01	2-Chlorotoluene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-4-101818	1832950-01	1,1-Dichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
TB-4-101818	1832950-01	Dibromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
TB-4-101818	1832950-01	1,2-Dibromo-3-chloropropane	10/22/2018	1	Y	n	u		1.0	0.89	ug/L
TB-4-101818	1832950-01	1,2-Dibromoethane	10/22/2018	0.5	Y	n	u		0.50	0.22	ug/L
TB-4-101818	1832950-01	Dibromomethane	10/22/2018	0.5	Y	n	u		0.50	0.23	ug/L
TB-4-101818	1832950-01	1,2-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
TB-4-101818	1832950-01	1,3-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.16	ug/L
TB-4-101818	1832950-01	1,4-Dichlorobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-4-101818	1832950-01	Dichlorodifluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-4-101818	1832950-01	1,1-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-4-101818	1832950-01	1,2-Dichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-4-101818	1832950-01	Chloromethane	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L
TB-4-101818	1832950-01	Chloroacetonitrile	10/22/2018	0	Y	y	v				ug/L
TB-4-101818	1832950-01	Methacrylonitrile	10/22/2018	10	Y	n	u		10	2.3	ug/L
TB-4-101818	1832950-01	Methyl ethyl ketone	10/22/2018	10	Y	n	u		10	3.3	ug/L
TB-4-101818	1832950-01	1,1,1-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
TB-4-101818	1832950-01	Methyl isobutyl ketone	10/22/2018	10	Y	n	u		10	2.4	ug/L
TB-4-101818	1832950-01	Pentachloroethane	10/22/2018	2	Y	n	u	UJ	2.0	0.63	ug/L

SDG: 1832950

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
TB-4-101818	1832950-01	Propionitrile	10/22/2018	20	Y	n	u		20	6.2	ug/L
TB-4-101818	1832950-01	Tetrahydrofuran	10/22/2018	20	Y	n	u		20	5.2	ug/L
TB-4-101818	1832950-01	2-Hexanone	10/22/2018	10	Y	n	u		10	5.0	ug/L
TB-4-101818	1832950-01	o-Xylene	10/22/2018	0.5	Y	n	u		0.50	0.13	ug/L
TB-4-101818	1832950-01	Methyl iodide	10/22/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
TB-4-101818	1832950-01	1-Chlorobutane	10/22/2018	0	Y	y	v				ug/L
TB-4-101818	1832950-01	1,1-Dichloropropanone	10/22/2018	0	Y	y	v				ug/L
TB-4-101818	1832950-01	Methyl acrylate	10/22/2018	0	Y	y	v				ug/L
TB-4-101818	1832950-01	Nitrobenzene	10/22/2018	0	Y	y	v				ug/L
TB-4-101818	1832950-01	2-Nitropropane	10/22/2018	0	Y	y	v				ug/L
TB-4-101818	1832950-01	Bromochloromethane	10/22/2018	0.5	Y	n	u		0.50	0.27	ug/L
TB-4-101818	1832950-01	Bromobenzene	10/22/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-4-101818	1832950-01	Benzene	10/22/2018	0.5	Y	n	u		0.50	0.11	ug/L
TB-4-101818	1832950-01	p- & m-Xylenes	10/22/2018	0.5	Y	n	u		0.50	0.34	ug/L
TB-4-101818	1832950-01	1,3,5-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-4-101818	1832950-01	1,1,2-Trichloroethane	10/22/2018	0.5	Y	n	u		0.50	0.21	ug/L
TB-4-101818	1832950-01	Trichloroethene	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
TB-4-101818	1832950-01	Trichlorofluoromethane	10/22/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-4-101818	1832950-01	1,2,3-Trichloropropane	10/22/2018	1	Y	n	u		1.0	0.78	ug/L
TB-4-101818	1832950-01	Methyl methacrylate	10/22/2018	5	Y	n	u		5.0	1.2	ug/L
TB-4-101818	1832950-01	1,2,4-Trimethylbenzene	10/22/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-4-101818	1832950-01	Hexachloroethane	10/22/2018	0.5	Y	n	u	UJ	0.50	0.11	ug/L
TB-4-101818	1832950-01	Vinyl chloride	10/22/2018	0.5	Y	n	u		0.50	0.18	ug/L
TB-4-101818	1832950-01	Acetone	10/22/2018	10	Y	n	u		10	6.6	ug/L
TB-4-101818	1832950-01	Acrylonitrile	10/22/2018	5	Y	n	u		5.0	1.5	ug/L

SDG: 1832950

<b>Analytical Method</b>		EPA-524.2									
<b>Sample ID</b>	<b>Lab Sample ID</b>	<b>Chemical Name</b>	<b>Anal Date</b>	<b>Result</b>	<b>Report</b>	<b>Detect</b>	<b>Lab Qual</b>	<b>Val Qual</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
TB-4-101818	1832950-01	Allyl chloride	10/22/2018	5	Y	n	u		5.0	0.47	ug/L
TB-4-101818	1832950-01	t-Amyl Methyl ether	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L
TB-4-101818	1832950-01	t-Butyl alcohol	10/22/2018	10	Y	n	u		10	9.4	ug/L
TB-4-101818	1832950-01	Carbon disulfide	10/22/2018	1	Y	n	u		1.0	0.48	ug/L
TB-4-101818	1832950-01	Ethyl t-butyl ether	10/22/2018	0.5	Y	n	u	UJ	0.50	0.32	ug/L
TB-4-101818	1832950-01	trans-1,4-Dichloro-2-butene	10/22/2018	5	Y	n	u		5.0	1.8	ug/L
TB-4-101818	1832950-01	Diethyl ether	10/22/2018	2	Y	n	u		2.0	0.33	ug/L
TB-4-101818	1832950-01	Ethyl methacrylate	10/22/2018	4	Y	n	u		4.0	1.3	ug/L
TB-4-101818	1832950-01	1,1,2-Trichloro-1,2,2-trifluoroethane	10/22/2018	0.5	Y	n	u		0.50	0.19	ug/L

<b>Analytical Method</b>		EPA-7196									
<b>Sample ID</b>	<b>Lab Sample ID</b>	<b>Chemical Name</b>	<b>Anal Date</b>	<b>Result</b>	<b>Report</b>	<b>Detect</b>	<b>Lab Qual</b>	<b>Val Qual</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
EB-4-101818	1832950-12	Hexavalent Chromium	10/19/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
MW-22-1	1832950-06	Hexavalent Chromium	10/19/2018	#####	Y	y	v j		0.0020	0.0007	mg/L
MW-22-2	1832950-05	Hexavalent Chromium	10/19/2018	0.0024	Y	y	v		0.0020	0.0007	mg/L
MW-22-3	1832950-04	Hexavalent Chromium	10/19/2018	0.0018	Y	y	v j		0.0020	0.0007	mg/L
MW-22-4	1832950-03	Hexavalent Chromium	10/19/2018	0.003	Y	y	v		0.0020	0.0007	mg/L
MW-22-5	1832950-02	Hexavalent Chromium	10/19/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
MW-24-1	1832950-11	Hexavalent Chromium	10/19/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
MW-24-2	1832950-10	Hexavalent Chromium	10/19/2018	0.0025	Y	y	v		0.0020	0.0007	mg/L
MW-24-3	1832950-09	Hexavalent Chromium	10/19/2018	0.0008	Y	y	v j		0.0020	0.0007	mg/L
MW-24-4	1832950-08	Hexavalent Chromium	10/19/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
MW-24-5	1832950-07	Hexavalent Chromium	10/19/2018	0.003	Y	y	v		0.0020	0.0007	mg/L

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** NASA JPL, 4Q2018

**LDC Report Date:** December 14, 2018

**Parameters:** Volatiles

**Validation Level:** Level III & IV

**Laboratory:** BC Laboratories, Inc.

**Sample Delivery Group (SDG):** 1833239

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
TB-5-102218	1833239-01	Water	10/22/18
MW-18-5**	1833239-02**	Water	10/22/18
MW-18-4	1833239-03	Water	10/22/18
MW-18-3	1833239-04	Water	10/22/18
MW-18-2	1833239-05	Water	10/22/18
MW-21-5	1833239-06	Water	10/22/18
MW-21-4	1833239-07	Water	10/22/18
MW-21-3	1833239-08	Water	10/22/18
MW-21-2	1833239-09	Water	10/22/18
DUP-4-4Q18	1833239-10	Water	10/22/18
EB-5-102218	1833239-11	Water	10/22/18
SB-2-102218	1833239-12	Water	10/22/18

\*\*Indicates sample underwent Level IV review

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) Method 524.2

All sample results were subjected to Level III data validation, which comprises an evaluation of quality control (QC) summary results. Samples appended with a double asterisk on the cover page were subjected to Level IV evaluation, which is comprised of the QC summary forms as well as the raw data, to confirm sample quantitation and identification.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated due to non-conformances discovered during data validation.
- U (Non-detected): The compound or analyte was analyzed for and positively identified by the laboratory; however the compound or analyte should be considered non-detected at the reported concentration due to the presence of contaminants detected in the associated blank(s).
- UJ (Non-detected estimated): The compound or analyte was reported as not detected by the laboratory; however the reported quantitation/detection limit is estimated due to non-conformances discovered during data validation.
- R (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

## III. Initial Calibration and Initial Calibration Verification

An initial calibration was performed as required by the method.

For compounds where average relative response factors (RRFs) were utilized, the percent relative standard deviations (%RSD) were less than or equal to 20.0%

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination ( $r^2$ ) were greater than or equal to 0.990.

Average relative response factors (RRF) for all compounds were within validation criteria.

The percent differences (%D) of the initial calibration verification (ICV) standard were less than or equal to 30.0% for all compounds.

## IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

The percent differences (%D) were less than or equal to 30.0% for all compounds with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
10/27/18	Bromomethane Methyl iodide	39.6 52.9	TB-5-102218 MW-18-5** MW-18-4 MW-18-3 MW-18-2	UJ (all non-detects) UJ (all non-detects)	P

Date	Compound	%D	Associated Samples	Flag	A or P
10/28/18	Bromomethane Methyl iodide Pentachloroethane	33.4 66.4 80.6	MW-21-5 MW-21-4 MW-21-3 MW-21-2 DUP-4-4Q18 EB-5-102218 SB-2-102218	UJ (all non-detects) UJ (all non-detects) UJ (all non-detects)	P

## V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## VI. Field Blanks

Sample TB-5-102218 was identified as a trip blank. No contaminants were found.

Sample EB-5-102218 was identified as an equipment blank. No contaminants were found.

Sample SB-2-102218 was identified as a source blank. No contaminants were found.

## VII. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## VIII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) analysis were not required by the method.

## IX. Laboratory Control Samples

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## X. Field Duplicates

Samples MW-21-2 and DUP-4-4Q18 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/L)		RPD
	MW-21-2	DUP-4-4Q18	
Chloroform	0.16	0.18	12

Compound	Concentration (ug/L)		RPD
	MW-21-2	DUP-4-4Q18	
Tetrachloroethene	0.42	0.43	2

### **XI. Internal Standards**

All internal standard areas and retention times were within QC limits.

### **XII. Compound Quantitation**

All compound quantitations met validation criteria for samples which underwent Level IV validation. Raw data were not reviewed for Level III validation.

### **XIII. Target Compound Identifications**

All target compound identifications met validation criteria for samples which underwent Level IV validation. Raw data were not reviewed for Level III validation.

### **XIV. System Performance**

The system performance was acceptable for samples which underwent Level IV validation. Raw data were not reviewed for Level III validation.

### **XV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to continuing calibration %D, data were qualified as estimated in twelve samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the data validation all other results are considered valid and usable for all purposes.



**NASA JPL, 3Q2018**

**Volatiles - Data Qualification Summary - SDG 1833239**

Sample	Compound	Flag	A or P	Reason
TB-5-102218 MW-18-5** MW-18-4 MW-18-3 MW-18-2	Bromomethane Methyl iodide	UJ (all non-detects) UJ (all non-detects)	P	Continuing calibration (%D)
MW-21-5 MW-21-4 MW-21-3 MW-21-2 DUP-4-4Q18 EB-5-102218 SB-2-102218	Bromomethane Methyl iodide Pentachloroethane	UJ (all non-detects) UJ (all non-detects) UJ (all non-detects)	P	Continuing calibration (%D)

**NASA JPL, 3Q2018**

**Volatiles - Laboratory Blank Data Qualification Summary - SDG 1833239**

No Sample Data Qualified in this SDG

**NASA JPL, 4Q2018**  
**Volatiles - Data Qualification Summary - SDG 1833239**

Sample	Compound	Flag	A or P	Reason
TB-5-102218 MW-18-5** MW-18-4 MW-18-3 MW-18-2	Bromomethane Methyl iodide	UJ (all non-detects) UJ (all non-detects)	P	Continuing calibration (%D)
MW-21-5 MW-21-4 MW-21-3 MW-21-2 DUP-4-4Q18 EB-5-102218 SB-2-102218	Bromomethane Methyl iodide Pentachloroethane	UJ (all non-detects) UJ (all non-detects) UJ (all non-detects)	P	Continuing calibration (%D)

**NASA JPL, 4Q2018**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 1833239**

No Sample Data Qualified in this SDG

LDC #: 43751C1

**VALIDATION COMPLETENESS WORKSHEET**

Date: 12/19/18

SDG #: 1833239

Level III/IV

Page: 1 of 1

Laboratory: BC Laboratories, Inc.

Reviewer: [Signature]

2nd Reviewer: [Signature]

**METHOD:** GC/MS Volatiles (EPA Method 524.2)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A	
II.	GC/MS Instrument performance check	A	
III.	Initial calibration/ICV	AA	ISO = 20% $\gamma^2$ ICV = 30%
IV.	Continuing calibration	SW	CCV = 30%
V.	Laboratory Blanks	A	
VI.	Field blanks	ND	TB = 1, EB = 11, SB = 12
VII.	Surrogate spikes	A	
VIII.	Matrix spike/Matrix spike duplicates	N	
IX.	Laboratory control samples	D	LCS
X.	Field duplicates	SW	D = 9+10
XI.	Internal standards	A	
XII.	Compound quantitation RL/LOQ/LODs	A	Not reviewed for Level III validation
XIII.	Target compound identification	A	Not reviewed for Level III validation
XIV.	System performance	A	Not reviewed for Level III validation
XV.	Overall assessment of data	A	

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinstate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

\*\* Indicates sample underwent Level IV validation

	Client ID	Lab ID	Matrix	Date
1	TB-5-102218	1833239-01	Water	10/22/18
2	MW-18-5**	1833239-02**	Water	10/22/18
3	MW-18-4	1833239-03	Water	10/22/18
4	MW-18-3	1833239-04	Water	10/22/18
5	MW-18-2	1833239-05	Water	10/22/18
6	MW-21-5	1833239-06	Water	10/22/18
7	MW-21-4	1833239-07	Water	10/22/18
8	MW-21-3	1833239-08	Water	10/22/18
9	MW-21-2	1833239-09	Water	10/22/18
10	DUP-4-4Q18	1833239-10	Water	10/22/18
11	EB-5-102218	1833239-11	Water	10/22/18
12	SB-2-102218	1833239-12	Water	10/22/18
13				

**Method:** Volatiles (EPA Method 524.2)

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
Were all technical holding times met?	/			
Was cooler temperature criteria met?	/			
<b>II. GC/MS Instrument performance check</b>				
Was a tune check performed prior to establishing and/or re-establishing an initial calibration?	/			
Were the BFB performance results reviewed and found to be within the specified criteria?	/			
<b>III. Initial calibration</b>				
Did the laboratory perform at least 5 point calibration prior to sample analysis?	/			
Were all percent relative standard deviations (%RSD) < 20%?	/			
<b>IIIa. Initial Calibration Verification calibration</b>				
Was an initial calibration verification standard analyzed after each initial calibration for each instrument?	/			
Were all percent differences (%D) < 30%?	/			
<b>IV. Continuing calibration</b>				
Was a continuing calibration standard analyzed at the beginning of each analysis batch?	/			
Were all percent differences (%D) of continuing calibration < 30%?		/		
<b>V. Laboratory Blanks</b>				
Was a laboratory blank associated with every sample in this SDG?	/			
Was a laboratory blank analyzed with each analysis batch?	/			
Was there contamination in the laboratory blanks? If yes, please see the Blanks validation completeness worksheet.		/		
<b>VI. Field blanks</b>				
Field blanks were identified in this SDG.	/			
Target compounds were detected in the field blanks.		/		
<b>VII. Surrogate spikes</b>				
Were all surrogate %R within the QC limits?	/			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			/	
<b>VIII. Matrix spike/Matrix spike duplicates</b>				
Was a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for this SDG?		/		
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			/	
<b>IX. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	/			

LDC #: 13751A1

VALIDATION FINDINGS CHECKLIST

Page: 2 of 3  
 Reviewer: [Signature]  
 2nd Reviewer: [Signature]

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per analytical batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) within 70-130%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>X. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field duplicates.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XI. Internal standards</b>				
Were internal standard area counts within +/-30% of the area of the most recent continuing calibration standard and +/-50% of the average peak area in the initial calibration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were retention times within +/-30 seconds of the associated calibration standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XII. Compound quantitation/CRQLs</b>				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) or regression equations used to quantitate the compound?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIII. Target compound identification</b>				
Were relative retention times (RRT's) within + 0.06 RRT units of the standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were chromatogram peaks verified and accounted for?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIV. System performance</b>				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XV. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

## TARGET COMPOUND WORKSHEET

### METHOD: VOA

A. Chloromethane	AA. Tetrachloroethene	AAA. 1,3,5-Trimethylbenzene	AAAA. Ethyl tert-butyl ether	A1. 1,3-Butadiene
B. Bromomethane	BB. 1,1,2,2-Tetrachloroethane	BBB. 4-Chlorotoluene	BBBB. tert-Amyl methyl ether	B1. Hexane
C. Vinyl chloride	CC. Toluene	CCC. tert-Butylbenzene	CCCC. 1-Chlorohexane	C1. Heptane
D. Chloroethane	DD. Chlorobenzene	DDD. 1,2,4-Trimethylbenzene	DDDD. Isopropyl alcohol	D1. Propylene
E. Methylene chloride	EE. Ethylbenzene	EEE. sec-Butylbenzene	EEEE. Acetonitrile	E1. Freon 11
F. Acetone	FF. Styrene	FFF. 1,3-Dichlorobenzene	FFFF. Acrolein	F1. Freon 12
G. Carbon disulfide	GG. Xylenes, total	GGG. p-Isopropyltoluene	GGGG. Acrylonitrile	G1. Freon 113
H. 1,1-Dichloroethene	HH. Vinyl acetate	HHH. 1,4-Dichlorobenzene	HHHH. 1,4-Dioxane	H1. Freon 114
I. 1,1-Dichloroethane	II. 2-Chloroethylvinyl ether	III. n-Butylbenzene	IIII. Isobutyl alcohol	I1. 2-Nitropropane
J. 1,2-Dichloroethene, total	JJ. Dichlorodifluoromethane	JJJ. 1,2-Dichlorobenzene	JJJJ. Methacrylonitrile	J1. Dimethyl disulfide
K. Chloroform	KK. Trichlorofluoromethane	KKK. 1,2,4-Trichlorobenzene	KKKK. Propionitrile	K1. 2,3-Dimethyl pentane
L. 1,2-Dichloroethane	LL. Methyl-tert-butyl ether	LLL. Hexachlorobutadiene	LLLL. Ethyl ether	L1. 2,4-Dimethyl pentane
M. 2-Butanone	MM. 1,2-Dibromo-3-chloropropane	MMM. Naphthalene	MMMM. Benzyl chloride	M1. 3,3-Dimethyl pentane
N. 1,1,1-Trichloroethane	NN. Methyl ethyl ketone	NNN. 1,2,3-Trichlorobenzene	NNNN. Iodomethane	N1. 2-Methylpentane
O. Carbon tetrachloride	OO. 2,2-Dichloropropane	OOO. 1,3,5-Trichlorobenzene	OOOO. 1,1-Difluoroethane	O1. 3-Methylpentane
P. Bromodichloromethane	PP. Bromochloromethane	PPP. trans-1,2-Dichloroethene	PPPP. Tetrahydrofuran	P1. 3-Ethylpentane
Q. 1,2-Dichloropropane	QQ. 1,1-Dichloropropene	QQQ. cis-1,2-Dichloroethene	QQQQ. Methyl acetate	Q1. 2,2-Dimethylpentane
R. cis-1,3-Dichloropropene	RR. Dibromomethane	RRR. m,p-Xylenes	RRRR. Ethyl acetate	R1. 2,2,3-Trimethylbutane
S. Trichloroethene	SS. 1,3-Dichloropropane	SSS. o-Xylene	SSSS. Cyclohexane	S1. 2,2,4-Trimethylpentane
T. Dibromochloromethane	TT. 1,2-Dibromoethane	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	TTTT. Methylcyclohexane	T1. 2-Methylhexane
U. 1,1,2-Trichloroethane	UU. 1,1,1,2-Tetrachloroethane	UUU. 1,2-Dichlorotetrafluoroethane	UUUU. Allyl chloride	U1. Nonanal
V. Benzene	VV. Isopropylbenzene	VVV. 4-Ethyltoluene	VVVV. Methyl methacrylate	V1. 2-Methylnaphthalene
W. trans-1,3-Dichloropropene	WW. Bromobenzene	WWW. Ethanol	WWWWW. Ethyl methacrylate	W1. Methanol
X. Bromoform	XX. 1,2,3-Trichloropropane	XXX. Di-isopropyl ether	XXXX. cis-1,4-Dichloro-2-butene	X1. 1,2,3-Trimethylbenzene
Y. 4-Methyl-2-pentanone	YY. n-Propylbenzene	YYY. tert-Butanol	YYYY. trans-1,4-Dichloro-2-butene	Y1.
Z. 2-Hexanone	ZZ. 2-Chlorotoluene	ZZZ. tert-Butyl alcohol	ZZZZ. Pentachloroethane	Z1.

VALIDATION FINDINGS WORKSHEET  
Continuing Calibration

METHOD: GC/MS VOA (EPA Method 524.2)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

N/A Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?

N/A Were all percent differences (%D)  $\leq$  30%?

#	Date	Standard ID	Compound	Finding %D (Limit: <30.0%)	Associated Samples	Qualifications
	10/27/18	2TOCT02	B Methyl iodide	39.6 52.9	1-5 MB (ND)	<del>Y/N/P</del> ✓
	10/28/18	2TOCT32	B Methyl iodide 2222	33.4 66.4 80.6	6-12 (ND)	<del>Y/N/P</del> ✓

LDC# 43751C1

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

Page: 1 of 1  
Reviewer: [Signature]  
2nd Reviewer: JVB

**METHOD: GCMS VOA (EPA Method 524.2)**

Compound	Concentration (ug/L)		RPD
	9	10	
K	0.16	0.18	12
AA	0.42	0.43	2

V:\FIELD DUPLICATES\Field Duplicates\FD\_Organics\2018\43751C1\_JPL.wpd



### VALIDATION FINDINGS WORKSHEET Initial Calibration Calculation Verification

**METHOD:** GC/MS VOA (EPA Method 524.2)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$$RRF = (A_x)(C_s)/(A_s)(C_x)$$

average RRF = sum of the RRFs/number of standards

$$\%RSD = 100 * (S/X)$$

$A_x$  = Area of compound,

$C_x$  = Concentration of compound,

$S$  = Standard deviation of the RRFs

$X$  = Mean of the RRFs

$A_s$  = Area of associated internal standard

$C_s$  = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported	Recalculated	Reported	Recalculated	Reported	Recalculated
				RRF ( 10 std)	RRF ( 10 std)	Average RRF (initial)	Average RRF (initial)	%RSD	%RSD
1	ICAL (MS-V5)	10/24/18	QQQ (1st internal standard)	0.5602554	0.5602554	0.5369482	0.5369482	5.466507	5.4665
			S (2nd internal standard)	0.3618204	0.3618204	0.3481508	0.3481508	7.054761	7.0547
			EE (3rd internal standard)	1.860682	1.8606817	1.826999	1.826999	12.71603	12.7160
			(4th internal standard)						
2			QQQ (1st internal standard)						
			S (2nd internal standard)						
			AA (3rd internal standard)						
			HHH (4th internal standard)						
3			QQQ (1st internal standard)						
			S (2nd internal standard)						
			AA (3rd internal standard)						
			HHH (4th internal standard)						
4			QQQ (1st internal standard)						
			S (2nd internal standard)						
			AA (3rd internal standard)						
			HHH (4th internal standard)						

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

### VALIDATION FINDINGS WORKSHEET Continuing Calibration Results Verification

**METHOD:** GC/MS VOA (EPA Method 524.2)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 \* (ave. RRF - RRF)/ave. RRF  
RRF = (A<sub>x</sub>)(C<sub>is</sub>)/(A<sub>is</sub>)(C<sub>x</sub>)

Where: ave. RRF = initial calibration average RRF  
RRF = continuing calibration RRF  
A<sub>x</sub> = Area of compound,                      A<sub>is</sub> = Area of associated internal standard  
C<sub>x</sub> = Concentration of compound,        C<sub>is</sub> = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference internal Standard)	Average RRF (initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	27OCT02	10/27/18	QQQ (1st internal standard)	0.5369482	0.5932511	0.5932511	10.5	10.5
			S (2nd internal standard)	0.3481508	0.3355735	0.3355734	3.6	3.6
			EE (3rd internal standard)	1.826999	1.809214	1.809214	1.0	1.0
			HHH (4th internal standard)					
2			QQQ (1st internal standard)					
			S (2nd internal standard)					
			EE (3rd internal standard)					
			HHH (4th internal standard)					
3			QQQ (1st internal standard)					
			S (2nd internal standard)					
			AA (3rd internal standard)					
			HHH (4th internal standard)					
4			QQQ (1st internal standard)					
			S (2nd internal standard)					
			AA (3rd internal standard)					
			HHH (4th internal standard)					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 43751C1

**VALIDATION FINDINGS WORKSHEET**  
**Surrogate Results Verification**

Page: 6 of 1  
Reviewer: [Signature]  
2nd reviewer: [Signature]

**METHOD:** GC/MS VOA (EPA Method 524.2)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery:  $SF/SS * 100$

Where: SF = Surrogate Found  
SS = Surrogate Spiked

Sample ID: 2

	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
			Reported	Recalculated	
Toluene-d8	10.0	97.2	97.2	97.2	0
Bromofluorobenzene	↓	10.19	102	102	↓
1,2-Dichlorobenzene-d4 <u>DCM</u>	↓	10.21	102	102	↓
Dibromofluoromethane					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
			Reported	Recalculated	
Toluene-d8					
Bromofluorobenzene					
1,2-Dichlorobenzene-d4					
Dibromofluoromethane					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
			Reported	Recalculated	
Toluene-d8					
Bromofluorobenzene					
1,2-Dichlorobenzene-d4					
Dibromofluoromethane					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
			Reported	Recalculated	
Toluene-d8					
Bromofluorobenzene					
1,2-Dichlorobenzene-d4					
Dibromofluoromethane					

LDC #: 13751e1

**VALIDATION FINDINGS WORKSHEET**  
**Laboratory Control Sample Results Verification**

Page: 1 of 1  
 Reviewer: JF  
 2nd Reviewer: JVB

**METHOD:** GC/MS VOA (EPA Method 524.2)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate (if applicable) were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 \* SSC/SA

Where: SSC = Spiked sample concentration  
 SA = Spike added

RPD = | LCSC - LCSDC | \* 2 / (LCSC + LCSDC)

LCSC = Laboratory control sample concentration    LCSDC = Laboratory control sample duplicate concentration

LCS ID: B028563-B91

Compound	Spike Added (µg/L)		Spiked Sample Concentration (µg/L)		LCS		LCSD		LCS/LCSD	
	LCS	LCSD	LCS	LCSD	Percent Recovery		Percent Recovery		RPD	
					Reported	Recalc.	Reported	Recalc.	Reported	Recalculated
1,1-Dichloroethene	25.000	NA	26.980	NA	108	108				
Trichloroethene	↓	↓	26.060	↓	104	104				
Benzene	↓	↓	25.580	↓	102	102				
Toluene	↓	↓	24.400	↓	97.6	97.6				
Chlorobenzene	↓	↓	24.440	↓	97.8	97.8				

Comments: Refer to Laboratory Control Sample findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.



## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** NASA JPL, 4Q2018  
**LDC Report Date:** December 11, 2018  
**Parameters:** Chromium  
**Validation Level:** Level III & IV  
**Laboratory:** BC Laboratories, Inc.  
**Sample Delivery Group (SDG):** 1833239

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-18-5**	1833239-02**	Water	10/22/18
MW-18-4	1833239-03	Water	10/22/18
MW-18-3	1833239-04	Water	10/22/18
MW-18-2	1833239-05	Water	10/22/18
MW-21-5	1833239-06	Water	10/22/18
MW-21-4	1833239-07	Water	10/22/18
MW-21-3	1833239-08	Water	10/22/18
MW-21-2	1833239-09	Water	10/22/18
DUP-4-4Q18	1833239-10	Water	10/22/18
EB-5-102218	1833239-11	Water	10/22/18
SB-2-102218	1833239-12	Water	10/22/18
MW-18-5MS	1833239-02MS	Water	10/22/18
MW-18-5MSD	1833239-02MSD	Water	10/22/18
MW-18-5DUP	1833239-02DUP	Water	10/22/18
SB-2-102218MS	1833239-12MS	Water	10/22/18
SB-2-102218MSD	1833239-12MSD	Water	10/22/18
SB-2-102218DUP	1833239-12DUP	Water	10/22/18

\*\*Indicates sample underwent Level IV validation

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with a modified outline of the USEPA National Functional Guidelines (NFG) for Inorganic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Chromium by Environmental Protection Agency (EPA) Method 200.8

All sample results were subjected to Level III data validation, which comprises an evaluation of quality control (QC) summary results. Samples appended with a double asterisk on the cover page were subjected to Level IV data validation, which is comprised of the QC summary forms as well as the raw data, to confirm sample quantitation and identification.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated due to non-conformances discovered during data validation.
- U (Non-detected): The compound or analyte was analyzed for and positively identified by the laboratory; however the compound or analyte should be considered non-detected at the reported concentration due to the presence of contaminants detected in the associated blank(s).
- UJ (Non-detected estimated): The compound or analyte was reported as not detected by the laboratory; however the reported quantitation/detection limit is estimated due to non-conformances discovered during data validation.
- R (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition.

All technical holding time requirements were met.

## **II. ICPMS Tune**

The mass calibration was within 0.1 AMU and the percent relative standard deviation (%RSD) was less than or equal to 5%.

## **III. Instrument Calibration**

Initial and continuing calibrations were performed as required by the method.

The initial calibration verification (ICV) and continuing calibration verification (CCV) standards were within QC limits.

## **IV. ICP Interference Check Sample Analysis**

ICP interference check sample analysis data were not required by the method.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **VI. Field Blanks**

Sample EB-1-101518 was identified as an equipment blank. No contaminants were found.

Sample SB-1-101518 was identified as a source blank. No contaminants were found.

## **VII. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **VIII. Duplicate Sample Analysis**

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **IX. Serial Dilution**

Serial dilution analysis was performed on an associated project sample. Percent differences (%D) were within QC limits.



## **X. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **XI. Field Duplicates**

Samples MW-21-2 and DUP-4-4Q18 were identified as field duplicates. No results were detected in any of the samples.

## **XII. Internal Standards (ICP-MS)**

All internal standard percent recoveries (%R) were within QC limits for samples which underwent Level IV validation. Raw data were not reviewed for Level III validation.

## **XIII. Sample Result Verification**

All sample result verifications were acceptable for samples which underwent Level IV validation. Raw data were not reviewed for Level III validation.

## **XIV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

The quality control criteria reviewed were met and are considered acceptable. Based upon the data validation all results are considered valid and usable for all purposes.

**NASA JPL, 4Q2018**  
**Chromium - Data Qualification Summary - SDG 1833239**

No Sample Data Qualified in this SDG

**NASA JPL, 4Q2018**  
**Chromium - Laboratory Blank Data Qualification Summary - SDG 1833239**

No Sample Data Qualified in this SDG

LDC #: 43751C4a

**VALIDATION COMPLETENESS WORKSHEET**

Date: 12-5-18

SDG #: 1833239

Level III/IV

Page: 1 of 2

Laboratory: BC Laboratories, Inc.

Reviewer: MG

2nd Reviewer:

**METHOD:** Chromium (EPA Method 200.8)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A	
II.	ICP/MS Tune	A	
III.	Instrument Calibration	A	
IV.	ICP Interference Check Sample (ICS) Analysis	N	not required
V.	Laboratory Blanks	A	
VI.	Field Blanks	ND	EB = 10, SB = 11
VII.	Matrix Spike/Matrix Spike Duplicates	A	MS/MSD
VIII.	Duplicate sample analysis	A	DUP
IX.	Serial Dilution	A	SD: 1
X.	Laboratory control samples	A	LCS
XI.	Field Duplicates	ND	D = 8+9
XII.	Internal Standard (ICP-MS)	A	not reviewed for Level III
XIII.	Sample Result Verification	A	Not reviewed for Level III validation
XIV.	Overall Assessment of Data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB = Source blank  
OTHER:

\*\* Indicates sample underwent Level IV validation

	Client ID	Lab ID	Matrix	Date
1	MW-18-5**	1833239-02**	Water	10/22/18
2	MW-18-4	1833239-03	Water	10/22/18
3	MW-18-3	1833239-04	Water	10/22/18
4	MW-18-2	1833239-05	Water	10/22/18
5	MW-21-5	1833239-06	Water	10/22/18
6	MW-21-4	1833239-07	Water	10/22/18
7	MW-21-3	1833239-08	Water	10/22/18
8	MW-21-2	1833239-09	Water	10/22/18
9	DUP-4-4Q18	1833239-10	Water	10/22/18
10	EB-5-102218	1833239-11	Water	10/22/18
11	SB-2-102218	1833239-12	Water	10/22/18
12	MW-18-5MS	1833239-02MS	Water	10/22/18
13	MW-18-5MSD	1833239-02MSD	Water	10/22/18
14	MW-18-5DUP	1833239-02DUP	Water	10/22/18
15	SB-2-102218MS	1833239-12MS	Water	10/22/18

LDC #: 43751C4a

# VALIDATION COMPLETENESS WORKSHEET

Date: 12-5-18

SDG #: 1833239

Level III/IV

Page: 2 of 2

Laboratory: BC Laboratories, Inc.

Reviewer: MG

2nd Reviewer:

**METHOD:** Chromium (EPA Method 200.8)

	Client ID	Lab ID	Matrix	Date
16	SB-2-102218MSD	1833239-12MSD	Water	10/22/18
17	SB-2-102218DUP	1833239-12DUP	Water	10/22/18
18				
19				
20				
21	PBW1			
22	PBW2			

Notes:

Method: Metals (EPA SW 846 Method 6010/7000/6020)

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
<b>II. ICP/MS Tune</b>				
Were all isotopes in the tuning solution mass resolution within 0.1 amu?	✓			
Were %RSD of isotopes in the tuning solution $\leq 5\%$ ?	✓			
<b>III. Calibration</b>				
Were all instruments calibrated daily, each set-up time?	✓			
Were the proper number of standards used?	✓			
Were all initial and continuing calibration verification %Rs within the 90-110% (80-120% for mercury) QC limits?	✓			
Were all initial calibration correlation coefficients $> 0.995$ ?	✓			
<b>IV. Blanks</b>				
Was a method blank associated with every sample in this SDG?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
<b>V. ICP Interference Check Sample</b>				
Were ICP Interference check samples performed daily?		✓		
Were the AB solution percent recoveries (%R) with the 80-120% QC limits?			✓	
<b>VI. Matrix spike/Matrix spike duplicates</b>				
Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.	✓			
Were the MS/MSD or duplicate relative percent differences (RPD) $< 20\%$ for waters and $\leq 35\%$ for soil samples? A control limit of $\pm RL$ ( $\pm 2X RL$ for soil) was used for samples that were $\leq 5X$ the RL, including when only one of the duplicate sample values were $< 5X$ the RL.	✓			
<b>VII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% QC limits for water samples and laboratory established QC limits for soils?	✓			

Validation Area	Yes	No	NA	Findings/Comments
<b>VIII. Internal Standards (EPA SW 846 Method 6020/EPA 200.8)</b>				
Were all the percent recoveries (%R) within the 30-120% (6020)/60-125% (200.8) of the intensity of the internal standard in the associated initial calibration?	✓			
If the %Rs were outside the criteria, was a reanalysis performed?			✓	
<b>IX. ICP Serial Dilution</b>				
Was an ICP serial dilution analyzed if analyte concentrations were > 50X the MDL (ICP)/>100X the MDL(ICP/MS)?	✓			
Were all percent differences (%Ds) < 10%?	✓			
Was there evidence of negative interference? If yes, professional judgement will be used to qualify the data.		✓		
<b>X. Sample Result Verification</b>				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
<b>XI. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	✓			
<b>XII. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	✓			
Target analytes were detected in the field duplicates.		✓		
<b>XIII. Field blanks</b>				
Field blanks were identified in this SDG.	✓			
Target analytes were detected in the field blanks.		✓		

LDC #: 43751C4a

**VALIDATION FINDINGS WORKSHEET**  
**Initial and Continuing Calibration Calculation Verification**

Page: 1 of 1  
 Reviewer: MG  
 2nd Reviewer: [Signature]

**METHOD:** Trace metals (EPA SW 846 Method 6010/6020/7000)

An initial and continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

$$\%R = \frac{\text{Found}}{\text{True}} \times 100$$

Where, Found = concentration (in ug/L) of each analyte measured in the analysis of the ICV or CCV solution  
 True = concentration (in ug/L) of each analyte in the ICV or CCV source

Standard ID	Type of Analysis	Element	Found (ug/L)	True (ug/L)	Recalculated	Reported	Acceptable (Y/N)
					%R	%R	
	ICP (Low Level calibration)						
	ICP/MS (Low Level calibration)						
	ICP (Initial calibration)						
<u>0855 ICV</u>	ICP/MS (Initial calibration)	<u>Cr</u>	<u>52.991</u>	<u>50.000</u>	<u>106</u>	<u>106</u>	<u>Y</u>
	CVAA (Initial calibration)						↓
	ICP (Continuing calibration)						
<u>0149 CCVK</u>	ICP/MS (Continuing calibration)	<u>Cr</u>	<u>38.591</u>	<u>40.000</u>	<u>96.5</u>	<u>96.5</u>	↓
	CVAA (Continuing calibration)						

ICP-MS TUNE	Calculation	Mass	Actual (Mean Counts / Axis)	Required (Counts / Axis)	Recalculated %RSD	Acceptable (Y/N)
<u>tune</u>	Mass Axis	<u>114.904</u>	<u>114.875</u>	<u>± 0.1 AMU</u>	<u>NA</u>	<u>Y</u>
↓	%RSD	<u>238.1</u>	<u>0.6</u>	<u>≤ 5% RSD</u>	<u>0.6</u>	↓

Comments:

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LDC #: 43751C4a

**VALIDATION FINDINGS WORKSHEET**  
**Level IV Recalculation Worksheet**

Page: 1 of 1  
Reviewer: MG  
2nd Reviewer: [Signature]

**METHOD:** Trace Metals (EPA SW 846 Method 6010/6020/7000)

Percent recoveries (%R) for an ICP interference check sample, a laboratory control sample and a matrix spike sample were recalculated using the following formula:

$$\%R = \frac{\text{Found}}{\text{True}} \times 100$$
 Where, Found = Concentration of each analyte measured in the analysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result) - SR (sample result).  
 True = Concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

$$RPD = \frac{|S-D|}{(S+D)/2} \times 100$$
 Where, S = Original sample concentration  
 D = Duplicate sample concentration

An ICP serial dilution percent difference (%D) was recalculated using the following formula:

$$\%D = \frac{|I-SDR|}{I} \times 100$$
 Where, I = Initial Sample Result (mg/L)  
 SDR = Serial Dilution Result (mg/L) (Instrument Reading x 5)

Sample ID	Type of Analysis	Element	Found / S / I (units)	True / D / SDR (units)	Recalculated	Reported	Acceptable (Y/N)
					%R / RPD / %D	%R / RPD / %D	
-	ICP interference check	-	-	-	-	-	-
0156 LCS	Laboratory control sample	Cr	40.99 (µg/L)	40.00 (µg/L)	102	102	Y
0214 12	Matrix spike	Cr	(SSR-SR) 40.08 (µg/L)	40.00 (µg/L)	100	100	↓
0203/0207 14	Duplicate	Cr	0.50 u (µg/L)	0.50 u (µg/L)	0	-	↓
0203/0210 1	ICP serial dilution	Cr	0.50 u (µg/L)	2.5 u (µg/L)	0	-	↓

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.



LDC #: 43751C4a

VALIDATION FINDINGS WORKSHEET  
Sample Calculation Verification

Page: 1 of 1  
Reviewer: MG  
2nd reviewer: K

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

- N N/A Have results been reported and calculated correctly?
- N N/A Are results within the calibrated range of the instruments and within the linear range of the ICP?
- N N/A Are all detection limits below the CRDL?

Detected analyte results for Level IV sample = N.D. were ~~recalculated and verified using the following equation:~~

Concentration =  $\frac{(RD)(FV)(Dil)}{(In. Vol.)}$  Recalculation:

- RD = Raw data concentration
- FV = Final volume (ml)
- In. Vol. = Initial volume (ml) or weight (G)
- Dil = Dilution factor

#	Sample ID	Analyte	Reported Concentration ( )	Calculated Concentration ( )	Acceptable (Y/N)

Note: \_\_\_\_\_  
\_\_\_\_\_

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** NASA JPL, 4Q2018

**LDC Report Date:** December 11, 2018

**Parameters:** Wet Chemistry

**Validation Level:** Level III & IV

**Laboratory:** BC Laboratories, Inc.

**Sample Delivery Group (SDG):** 1833239

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-18-5**	1833239-02**	Water	10/22/18
MW-18-4	1833239-03	Water	10/22/18
MW-18-3	1833239-04	Water	10/22/18
MW-18-2	1833239-05	Water	10/22/18
MW-21-5	1833239-06	Water	10/22/18
MW-21-4	1833239-07	Water	10/22/18
MW-21-3	1833239-08	Water	10/22/18
MW-21-2	1833239-09	Water	10/22/18
DUP-4-4Q18	1833239-10	Water	10/22/18
EB-5-102218	1833239-11	Water	10/22/18
SB-2-102218	1833239-12	Water	10/22/18
MW-18-5MS	1833239-02MS	Water	10/22/18
MW-18-5MSD	1833239-02MSD	Water	10/22/18
MW-18-5DUP	1833239-02DUP	Water	10/22/18
EB-5-102218MS	1833239-11MS	Water	10/22/18
EB-5-102218MSD	1833239-11MSD	Water	10/22/18
EB-5-102218DUP	1833239-11DUP	Water	10/22/18

\*\*Indicates sample underwent Level IV validation

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with a modified outline of the USEPA National Functional Guidelines (NFG) for Inorganic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following methods:

Hexavalent Chromium by Environmental Protection Agency (EPA) SW 846 Method 7196

Perchlorate by EPA Method 314.0

All sample results were subjected to Level III data validation, which comprises an evaluation of quality control (QC) summary results. Samples appended with a double asterisk on the cover page were subjected to Level IV data validation, which is comprised of the QC summary forms as well as the raw data, to confirm sample quantitation and identification.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated due to non-conformances discovered during data validation.
- U (Non-detected): The compound or analyte was analyzed for and positively identified by the laboratory; however the compound or analyte should be considered non-detected at the reported concentration due to the presence of contaminants detected in the associated blank(s).
- UJ (Non-detected estimated): The compound or analyte was reported as not detected by the laboratory; however the reported quantitation/detection limit is estimated due to non-conformances discovered during data validation.
- R (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition.

All technical holding time requirements were met.

## **II. Initial Calibration**

All criteria for the initial calibration of each method were met.

## **III. Continuing Calibration**

Continuing calibration frequency and analysis criteria were met for each method when applicable.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the methods. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

Sample EB-5-102218 was identified as an equipment blank. No contaminants were found.

Sample SB-2-102218 was identified as a source blank. No contaminants were found.

## **VI. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **VII. Duplicate Sample Analysis**

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the methods. Percent recoveries (%R) were within QC limits.

### IX. Field Duplicates

Samples MW-21-2 and DUP-4-4Q18 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Analyte	Concentration (ug/L)		RPD
	MW-21-2	DUP-4-4Q18	
Perchlorate	1.6	1.4	13

### X. Sample Result Verification

All sample result verifications were acceptable for samples which underwent Level IV validation. Raw data were not reviewed for Level III validation.

### XI. Overall Assessment of Data

The analysis was conducted within all specifications of the methods. No results were rejected in this SDG.

The quality control criteria reviewed were met and are considered acceptable. Based upon the data validation all results are considered valid and usable for all purposes.

**NASA JPL, 4Q2018**  
**Wet Chemistry - Data Qualification Summary - SDG 1833239**

No Sample Data Qualified in this SDG

**NASA JPL, 4Q2018**  
**Wet Chemistry - Laboratory Blank Data Qualification Summary - SDG 1833239**

No Sample Data Qualified in this SDG

LDC #: 43751C6

**VALIDATION COMPLETENESS WORKSHEET**

Date: 12-5-18


SDG #: 1833239

Level III/IV

Page: 1 of 2

Laboratory: BC Laboratories, Inc.

Reviewer: MG

2nd Reviewer: **METHOD: (Analyte) Hexavalent Chromium (EPA SW846 Method 7196), Perchlorate (EPA Method 314.0)**

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A	
II	Initial calibration	A	
III.	Calibration verification	A	
IV	Laboratory Blanks	A	
V	Field blanks	ND	EB = 10 SB = 11
VI.	Matrix Spike/Matrix Spike Duplicates	A	MS/MSD (SDG: 1832621)
VII.	Duplicate sample analysis	A	DUP ( ↓ )
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	SW	D = 8+9
X.	Sample result verification	A	Not reviewed for Level III validation
XI	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB = Source blank  
OTHER:

\*\* Indicates sample underwent Level IV validation

	Client ID	Lab ID	Matrix	Date
1	MW-18-5**	1833239-02**	Water	10/22/18
2	MW-18-4	1833239-03	Water	10/22/18
3	MW-18-3	1833239-04	Water	10/22/18
4	MW-18-2	1833239-05	Water	10/22/18
5	MW-21-5	1833239-06	Water	10/22/18
6	MW-21-4	1833239-07	Water	10/22/18
7	MW-21-3	1833239-08	Water	10/22/18
8	MW-21-2	1833239-09	Water	10/22/18
9	DUP-4-4Q18	1833239-10	Water	10/22/18
10	EB-5-102218	1833239-11	Water	10/22/18
11	SB-2-102218	1833239-12	Water	10/22/18
12	MW-18-5MS	1833239-02MS	Water	10/22/18
13	MW-18-5MSD	1833239-02MSD	Water	10/22/18
14	MW-18-5DUP	1833239-02DUP	Water	10/22/18
15	EB-5-102218MS	1833239-11MS	Water	10/22/18
16	EB-5-102218MSD	1833239-11MSD	Water	10/22/18
17	EB-5-102218DUP	1833239-11DUP	Water	10/22/18

LDC #: 43751C6  
SDG #: 1833239  
Laboratory: BC Laboratories, Inc.

**VALIDATION COMPLETENESS WORKSHEET**  
Level III/IV

Date: 12-5-18  
Page: 2 of 2  
Reviewer: MG  
2nd Reviewer: [Signature]

**METHOD: (Analyte) Hexavalent Chromium (EPA SW846 Method 7196), Perchlorate (EPA Method 314.0)**

	Client ID	Lab ID	Matrix	Date
18				
19				
20				
21	PBW1			
22	PBW2			

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



**Method:** Inorganics (EPA Method *see cover*)

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
<b>II. Calibration</b>				
Were all instruments calibrated daily, each set-up time?	✓			
Were the proper number of standards used?	✓			
Were all initial calibration correlation coefficients > 0.995?	✓			
Were all initial and continuing calibration verification %Rs within the 90-110% QC limits?	✓			
Were titrant checks performed as required? (Level IV only)			✓	
Were balance checks performed as required? (Level IV only)			✓	
<b>III. Blanks</b>				
Was a method blank associated with every sample in this SDG?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
<b>IV. Matrix spike/Matrix spike duplicates and Duplicates</b>				
Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.	✓			
Were the MS/MSD or duplicate relative percent differences (RPD) ≤ 20% for waters and ≤ 35% for soil samples? A control limit of ≤ CRDL (≤ 2X CRDL for soil) was used for samples that were ≤ 5X the CRDL, including when only one of the duplicate sample values were ≤ 5X the CRDL.	✓			
<b>V. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% (85-115% for Method 300.0) QC limits?	✓			
<b>VI. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 43751C6

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2  
 Reviewer: MG  
 2nd Reviewer: [Signature]

Validation Area	Yes	No	NA	Findings/Comments
<b>VII. Sample Result Verification</b>				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
Were detection limits < RL?	✓			
<b>VIII. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	✓			
<b>IX. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	✓			
Target analytes were detected in the field duplicates.	✓			
<b>X. Field blanks</b>				
Field blanks were identified in this SDG.	✓			
Target analytes were detected in the field blanks.		✓		



LDC#: 43751C6

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

Page: 1 of 1  
Reviewer: MS  
2nd Reviewer: CL

Inorganics, Method See Cover

Analyte	Concentration (ug/L)		RPD	
	8	9		
Perchlorate	1.6	1.4	13	

V:\FIELD DUPLICATES\Field Duplicates\FD\_inorganic2018\43751C6.WPD

LDC #: 43751C6

**VALIDATION FINDINGS WORKSHEET**  
**Initial and Continuing Calibration Calculation Verification**

Page: 1 of 1  
 Reviewer: MG  
 2nd Reviewer: [Signature]

**METHOD:** Inorganics, Method See cover

The correlation coefficient (r) for the calibration of Cr VI was recalculated. Calibration date: 10-22-18

An initial or continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

$\%R = \frac{\text{Found}}{\text{True}} \times 100$       Where, Found = concentration of each analyte measured in the analysis of the ICV or CCV solution  
 True = concentration of each analyte in the ICV or CCV source

Type of Analysis	Analyte	Standard ID	Conc. Found (units)	Abs. True (units)	Recalculated	Reported	Acceptable (Y/N)
					r or %R	r or %R	
Initial calibration	Cr VI	Blank	0.000 (mg/L)	0.00052	$r^2 = 0.999943$	$r^2 = 0.999944$	Y
		Standard 1	0.002 ( )	0.00181			
		Standard 2	0.005 ( )	0.00400			
		Standard 3	0.025 ( )	0.01818			
		Standard 4	0.050 ( )	0.03686			
		Standard 5	0.100 ( ↓ )	0.07251			
		Standard 6	-	-			
		Standard 7	-	-			
Calibration verification	CrO <sub>4</sub>	0022 CCV4	10.35 (μg/L)	10.00 (μg/L)	104	104	↓
Calibration verification	Cr VI	1935 CCV4	0.0488 (mg/L)	0.050 (mg/L)	97.6	97.6	
Calibration verification	-	-	-	-	-	-	

Comments: Refer to Calibration Verification findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 43751C6

**VALIDATION FINDINGS WORKSHEET**  
**Level IV Recalculation Worksheet**

Page: 1 of 1  
Reviewer: MG  
2nd Reviewer: [Signature]

METHOD: Inorganics, Method See cover

Percent recoveries (%R) for a laboratory control sample and a matrix spike sample were recalculated using the following formula:

$\%R = \frac{\text{Found}}{\text{True}} \times 100$       Where,      Found = concentration of each analyte measured in the analysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result) - SR (sample result).  
True = concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

$RPD = \frac{|S-D|}{(S+D)/2} \times 100$       Where,      S = Original sample concentration  
D = Duplicate sample concentration

Sample ID	Type of Analysis	Element	Found / S (units)	True / D (units)	Recalculated	Reported	Acceptable (Y/N)
					%R / RPD	%R / RPD	
<u>1859</u> <u>LCS</u>	Laboratory control sample	<u>ClO<sub>4</sub></u>	<u>10.51 (µg/L)</u>	<u>10.00 (µg/L)</u>	<u>105</u>	<u>105</u>	<u>Y</u>
<u>1935</u> <u>12</u>	Matrix spike sample	<u>Cr VI</u>	(SSR-SR) <u>0.0487 (mg/L)</u>	<u>0.052632 (mg/L)</u>	<u>92.5</u>	<u>92.6</u>	↓
<u>1935/1935</u> <u>14</u>	Duplicate sample	<u>Cr VI</u>	<u>0.000704 (mg/L)</u>	<u>0.000704 (mg/L)</u>	<u>0</u>	<u>-</u>	

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.



## NASA JPL, 4Q2018 - LDC# 43751C

SDG: 1833239

Analytical Method		EPA-200.8									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
DUP-4-4Q18	1833239-10	Total Recoverable Chromium	11/1/2018	3	Y	n	u		3.0	0.50	ug/L
EB-5-102218	1833239-11	Total Recoverable Chromium	11/1/2018	3	Y	n	u		3.0	0.50	ug/L
MW-18-2	1833239-05	Total Recoverable Chromium	11/1/2018	3	Y	n	u		3.0	0.50	ug/L
MW-18-3	1833239-04	Total Recoverable Chromium	11/1/2018	1.1	Y	y	v j		3.0	0.50	ug/L
MW-18-4	1833239-03	Total Recoverable Chromium	11/1/2018	2.8	Y	y	v j		3.0	0.50	ug/L
MW-18-5	1833239-02	Total Recoverable Chromium	11/1/2018	3	Y	n	u		3.0	0.50	ug/L
MW-21-2	1833239-09	Total Recoverable Chromium	11/1/2018	3	Y	n	u		3.0	0.50	ug/L
MW-21-3	1833239-08	Total Recoverable Chromium	11/1/2018	3	Y	n	u		3.0	0.50	ug/L
MW-21-4	1833239-07	Total Recoverable Chromium	11/1/2018	0.79	Y	y	v j		3.0	0.50	ug/L
MW-21-5	1833239-06	Total Recoverable Chromium	11/1/2018	0.6	Y	y	v j		3.0	0.50	ug/L
SB-2-102218	1833239-12	Total Recoverable Chromium	10/30/2018	3	Y	n	u		3.0	0.50	ug/L

Analytical Method		EPA-314.0									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
DUP-4-4Q18	1833239-10	Perchlorate	10/30/2018	1.4	Y	y	v j		4.0	0.92	ug/L
EB-5-102218	1833239-11	Perchlorate	10/30/2018	4	Y	n	u		4.0	0.92	ug/L
MW-18-2	1833239-05	Perchlorate	10/30/2018	4	Y	n	u		4.0	0.92	ug/L
MW-18-3	1833239-04	Perchlorate	10/30/2018	2.6	Y	y	v j		4.0	0.92	ug/L
MW-18-4	1833239-03	Perchlorate	10/30/2018	16	Y	y	v		4.0	0.92	ug/L
MW-18-5	1833239-02	Perchlorate	10/30/2018	4	Y	n	u		4.0	0.92	ug/L
MW-21-2	1833239-09	Perchlorate	10/30/2018	1.6	Y	y	v j		4.0	0.92	ug/L
MW-21-3	1833239-08	Perchlorate	10/30/2018	3	Y	y	v j		4.0	0.92	ug/L
MW-21-4	1833239-07	Perchlorate	10/30/2018	2.6	Y	y	v j		4.0	0.92	ug/L
MW-21-5	1833239-06	Perchlorate	10/30/2018	2.5	Y	y	v j		4.0	0.92	ug/L



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<b>Analytical Method</b>		EPA-314.0									
<b>Sample ID</b>	<b>Lab Sample ID</b>	<b>Chemical Name</b>	<b>Anal Date</b>	<b>Result</b>	<b>Report</b>	<b>Detect</b>	<b>Lab Qual</b>	<b>Val Qual</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
SB-2-102218	1833239-12	Perchlorate	10/30/2018	4	Y	n	u		4.0	0.92	ug/L

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<b>Analytical Method</b>		EPA-524.2									
<b>Sample ID</b>	<b>Lab Sample ID</b>	<b>Chemical Name</b>	<b>Anal Date</b>	<b>Result</b>	<b>Report</b>	<b>Detect</b>	<b>Lab Qual</b>	<b>Val Qual</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
DUP-4-4Q18	1833239-10	Vinyl chloride	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
DUP-4-4Q18	1833239-10	Acetone	10/28/2018	10	Y	n	u		10	6.6	ug/L
DUP-4-4Q18	1833239-10	Acrylonitrile	10/28/2018	5	Y	n	u		5.0	1.5	ug/L
DUP-4-4Q18	1833239-10	t-Amyl Methyl ether	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
DUP-4-4Q18	1833239-10	t-Butyl alcohol	10/28/2018	10	Y	n	u		10	9.4	ug/L
DUP-4-4Q18	1833239-10	Carbon disulfide	10/28/2018	1	Y	n	u		1.0	0.48	ug/L
DUP-4-4Q18	1833239-10	1,3,5-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-4-4Q18	1833239-10	Allyl chloride	10/28/2018	5	Y	n	u		5.0	0.47	ug/L
DUP-4-4Q18	1833239-10	1,2,4-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-4-4Q18	1833239-10	1,1,2-Trichloro-1,2,2-trifluoroethane	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
DUP-4-4Q18	1833239-10	1,2,3-Trichloropropane	10/28/2018	1	Y	n	u		1.0	0.78	ug/L
DUP-4-4Q18	1833239-10	Trichlorofluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-4-4Q18	1833239-10	Trichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
DUP-4-4Q18	1833239-10	1,1,2-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
DUP-4-4Q18	1833239-10	trans-1,4-Dichloro-2-butene	10/28/2018	5	Y	n	u		5.0	1.8	ug/L
DUP-4-4Q18	1833239-10	1,2,4-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-4-4Q18	1833239-10	1,1,1-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
DUP-4-4Q18	1833239-10	Methylene chloride	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
DUP-4-4Q18	1833239-10	2-Nitropropane	10/28/2018	0	Y	y	v				ug/L
DUP-4-4Q18	1833239-10	Nitrobenzene	10/28/2018	0	Y	y	v				ug/L
DUP-4-4Q18	1833239-10	Methyl acrylate	10/28/2018	0	Y	y	v				ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
DUP-4-4Q18	1833239-10	1,1-Dichloropropanone	10/28/2018	0	Y	y	v				ug/L
DUP-4-4Q18	1833239-10	1-Chlorobutane	10/28/2018	0	Y	y	v				ug/L
DUP-4-4Q18	1833239-10	Chloroacetonitrile	10/28/2018	0	Y	y	v				ug/L
DUP-4-4Q18	1833239-10	o-Xylene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
DUP-4-4Q18	1833239-10	p- & m-Xylenes	10/28/2018	0.5	Y	n	u		0.50	0.34	ug/L
DUP-4-4Q18	1833239-10	Methyl isobutyl ketone	10/28/2018	10	Y	n	u		10	2.4	ug/L
DUP-4-4Q18	1833239-10	Propionitrile	10/28/2018	20	Y	n	u		20	6.2	ug/L
DUP-4-4Q18	1833239-10	Diethyl ether	10/28/2018	2	Y	n	u		2.0	0.33	ug/L
DUP-4-4Q18	1833239-10	Methyl methacrylate	10/28/2018	5	Y	n	u		5.0	1.2	ug/L
DUP-4-4Q18	1833239-10	1,2,3-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
DUP-4-4Q18	1833239-10	Methyl ethyl ketone	10/28/2018	10	Y	n	u		10	3.3	ug/L
DUP-4-4Q18	1833239-10	Methacrylonitrile	10/28/2018	10	Y	n	u		10	2.3	ug/L
DUP-4-4Q18	1833239-10	2-Hexanone	10/28/2018	10	Y	n	u		10	5.0	ug/L
DUP-4-4Q18	1833239-10	Hexachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
DUP-4-4Q18	1833239-10	Ethyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.32	ug/L
DUP-4-4Q18	1833239-10	Ethyl methacrylate	10/28/2018	4	Y	n	u		4.0	1.3	ug/L
DUP-4-4Q18	1833239-10	Tetrahydrofuran	10/28/2018	20	Y	n	u		20	5.2	ug/L
DUP-4-4Q18	1833239-10	tert-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
DUP-4-4Q18	1833239-10	Dibromomethane	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
DUP-4-4Q18	1833239-10	1,2-Dibromoethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
DUP-4-4Q18	1833239-10	1,2-Dibromo-3-chloropropane	10/28/2018	1	Y	n	u		1.0	0.89	ug/L
DUP-4-4Q18	1833239-10	Dibromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
DUP-4-4Q18	1833239-10	4-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.093	ug/L
DUP-4-4Q18	1833239-10	2-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-4-4Q18	1833239-10	Chloromethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
DUP-4-4Q18	1833239-10	Chloroform	10/28/2018	0.18	Y	y	v j		0.50	0.14	ug/L
DUP-4-4Q18	1833239-10	Chloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-4-4Q18	1833239-10	Naphthalene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
DUP-4-4Q18	1833239-10	Carbon tetrachloride	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-4-4Q18	1833239-10	1,4-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-4-4Q18	1833239-10	sec-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
DUP-4-4Q18	1833239-10	n-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-4-4Q18	1833239-10	Bromoform	10/28/2018	0.5	Y	n	u		0.50	0.46	ug/L
DUP-4-4Q18	1833239-10	Bromodichloromethane	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
DUP-4-4Q18	1833239-10	Bromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
DUP-4-4Q18	1833239-10	Bromobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-4-4Q18	1833239-10	Benzene	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
DUP-4-4Q18	1833239-10	Bromomethane	10/28/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
DUP-4-4Q18	1833239-10	Methyl iodide	10/28/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
DUP-4-4Q18	1833239-10	Chlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-4-4Q18	1833239-10	1,1-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
DUP-4-4Q18	1833239-10	Tetrachloroethene	10/28/2018	0.43	Y	y	v j		0.50	0.23	ug/L
DUP-4-4Q18	1833239-10	1,1,1,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
DUP-4-4Q18	1833239-10	n-Propylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
DUP-4-4Q18	1833239-10	Methyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-4-4Q18	1833239-10	1,1,2,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-4-4Q18	1833239-10	p-Isopropyltoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-4-4Q18	1833239-10	Isopropylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-4-4Q18	1833239-10	Hexachlorobutadiene	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
DUP-4-4Q18	1833239-10	Ethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
DUP-4-4Q18	1833239-10	1,2-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
DUP-4-4Q18	1833239-10	cis-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-4-4Q18	1833239-10	1,3-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
DUP-4-4Q18	1833239-10	2,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
DUP-4-4Q18	1833239-10	1,3-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
DUP-4-4Q18	1833239-10	1,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-4-4Q18	1833239-10	trans-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-4-4Q18	1833239-10	cis-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
DUP-4-4Q18	1833239-10	1,1-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
DUP-4-4Q18	1833239-10	1,2-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-4-4Q18	1833239-10	1,1-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-4-4Q18	1833239-10	Dichlorodifluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-4-4Q18	1833239-10	Toluene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-4-4Q18	1833239-10	trans-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
DUP-4-4Q18	1833239-10	Pentachloroethane	10/28/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
DUP-4-4Q18	1833239-10	Styrene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
EB-5-102218	1833239-11	Dibromomethane	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
EB-5-102218	1833239-11	sec-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
EB-5-102218	1833239-11	Carbon tetrachloride	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-5-102218	1833239-11	Chlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-5-102218	1833239-11	Chloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-5-102218	1833239-11	Chloroform	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-5-102218	1833239-11	Chloromethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
EB-5-102218	1833239-11	2-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-5-102218	1833239-11	4-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.093	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
EB-5-102218	1833239-11	Dibromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
EB-5-102218	1833239-11	cis-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
EB-5-102218	1833239-11	1,2-Dibromoethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
EB-5-102218	1833239-11	Bromodichloromethane	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
EB-5-102218	1833239-11	1,2-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
EB-5-102218	1833239-11	1,3-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
EB-5-102218	1833239-11	1,4-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-5-102218	1833239-11	Dichlorodifluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-5-102218	1833239-11	1,1-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-5-102218	1833239-11	1,2-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-5-102218	1833239-11	1,1-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
EB-5-102218	1833239-11	1,2-Dibromo-3-chloropropane	10/28/2018	1	Y	n	u		1.0	0.89	ug/L
EB-5-102218	1833239-11	o-Xylene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
EB-5-102218	1833239-11	Pentachloroethane	10/28/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
EB-5-102218	1833239-11	Methyl iodide	10/28/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
EB-5-102218	1833239-11	Methyl ethyl ketone	10/28/2018	10	Y	n	u		10	3.3	ug/L
EB-5-102218	1833239-11	Bromomethane	10/28/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
EB-5-102218	1833239-11	2-Nitropropane	10/28/2018	0	Y	y	v				ug/L
EB-5-102218	1833239-11	Nitrobenzene	10/28/2018	0	Y	y	v				ug/L
EB-5-102218	1833239-11	Methyl acrylate	10/28/2018	0	Y	y	v				ug/L
EB-5-102218	1833239-11	1,1-Dichloropropanone	10/28/2018	0	Y	y	v				ug/L
EB-5-102218	1833239-11	Methyl isobutyl ketone	10/28/2018	10	Y	n	u		10	2.4	ug/L
EB-5-102218	1833239-11	Chloroacetonitrile	10/28/2018	0	Y	y	v				ug/L
EB-5-102218	1833239-11	Bromoform	10/28/2018	0.5	Y	n	u		0.50	0.46	ug/L
EB-5-102218	1833239-11	p- & m-Xylenes	10/28/2018	0.5	Y	n	u		0.50	0.34	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
EB-5-102218	1833239-11	Tetrahydrofuran	10/28/2018	20	Y	n	u		20	5.2	ug/L
EB-5-102218	1833239-11	Propionitrile	10/28/2018	20	Y	n	u		20	6.2	ug/L
EB-5-102218	1833239-11	Methyl methacrylate	10/28/2018	5	Y	n	u		5.0	1.2	ug/L
EB-5-102218	1833239-11	Benzene	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
EB-5-102218	1833239-11	Bromobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-5-102218	1833239-11	Bromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
EB-5-102218	1833239-11	tert-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
EB-5-102218	1833239-11	1-Chlorobutane	10/28/2018	0	Y	y	v				ug/L
EB-5-102218	1833239-11	t-Amyl Methyl ether	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
EB-5-102218	1833239-11	1,1,2-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
EB-5-102218	1833239-11	Trichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
EB-5-102218	1833239-11	Trichlorofluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-5-102218	1833239-11	1,2,3-Trichloropropane	10/28/2018	1	Y	n	u		1.0	0.78	ug/L
EB-5-102218	1833239-11	1,1,2-Trichloro-1,2,2-trifluoroethane	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
EB-5-102218	1833239-11	1,2,4-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-5-102218	1833239-11	1,3,5-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-5-102218	1833239-11	Vinyl chloride	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
EB-5-102218	1833239-11	Acetone	10/28/2018	10	Y	n	u		10	6.6	ug/L
EB-5-102218	1833239-11	1,1,1-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
EB-5-102218	1833239-11	Allyl chloride	10/28/2018	5	Y	n	u		5.0	0.47	ug/L
EB-5-102218	1833239-11	Diethyl ether	10/28/2018	2	Y	n	u		2.0	0.33	ug/L
EB-5-102218	1833239-11	t-Butyl alcohol	10/28/2018	10	Y	n	u		10	9.4	ug/L
EB-5-102218	1833239-11	Carbon disulfide	10/28/2018	1	Y	n	u		1.0	0.48	ug/L
EB-5-102218	1833239-11	trans-1,4-Dichloro-2-butene	10/28/2018	5	Y	n	u		5.0	1.8	ug/L
EB-5-102218	1833239-11	trans-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
EB-5-102218	1833239-11	Ethyl methacrylate	10/28/2018	4	Y	n	u		4.0	1.3	ug/L
EB-5-102218	1833239-11	n-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-5-102218	1833239-11	Ethyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.32	ug/L
EB-5-102218	1833239-11	Hexachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
EB-5-102218	1833239-11	2-Hexanone	10/28/2018	10	Y	n	u		10	5.0	ug/L
EB-5-102218	1833239-11	Methacrylonitrile	10/28/2018	10	Y	n	u		10	2.3	ug/L
EB-5-102218	1833239-11	Acrylonitrile	10/28/2018	5	Y	n	u		5.0	1.5	ug/L
EB-5-102218	1833239-11	cis-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-5-102218	1833239-11	1,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-5-102218	1833239-11	1,2,4-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-5-102218	1833239-11	1,3-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
EB-5-102218	1833239-11	2,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
EB-5-102218	1833239-11	1,1-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
EB-5-102218	1833239-11	trans-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
EB-5-102218	1833239-11	Ethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-5-102218	1833239-11	Hexachlorobutadiene	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
EB-5-102218	1833239-11	Isopropylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-5-102218	1833239-11	p-Isopropyltoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-5-102218	1833239-11	Methylene chloride	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
EB-5-102218	1833239-11	Tetrachloroethene	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
EB-5-102218	1833239-11	Naphthalene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
EB-5-102218	1833239-11	n-Propylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
EB-5-102218	1833239-11	Styrene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
EB-5-102218	1833239-11	1,1,1,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
EB-5-102218	1833239-11	1,1,2,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
EB-5-102218	1833239-11	Methyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-5-102218	1833239-11	1,2,3-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
EB-5-102218	1833239-11	Toluene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-18-2	1833239-05	1,2-Dichloropropane	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-18-2	1833239-05	Methyl t-butyl ether	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-18-2	1833239-05	trans-1,2-Dichloroethene	10/27/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-18-2	1833239-05	cis-1,2-Dichloroethene	10/27/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-18-2	1833239-05	1,1-Dichloroethene	10/27/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-18-2	1833239-05	1,1-Dichloroethane	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-18-2	1833239-05	cis-1,3-Dichloropropene	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-18-2	1833239-05	Dichlorodifluoromethane	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-18-2	1833239-05	1,4-Dichlorobenzene	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-18-2	1833239-05	1,2-Dichloroethane	10/27/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-18-2	1833239-05	1,3-Dichloropropane	10/27/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-18-2	1833239-05	Methylene chloride	10/27/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-18-2	1833239-05	Hexachlorobutadiene	10/27/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-18-2	1833239-05	1,1-Dichloropropene	10/27/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-18-2	1833239-05	trans-1,3-Dichloropropene	10/27/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-18-2	1833239-05	Ethylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-18-2	1833239-05	1,3-Dichlorobenzene	10/27/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-18-2	1833239-05	Chloroethane	10/27/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-18-2	1833239-05	Isopropylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-18-2	1833239-05	p-Isopropyltoluene	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-18-2	1833239-05	2,2-Dichloropropane	10/27/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-18-2	1833239-05	Chloroform	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L



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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-18-2	1833239-05	Naphthalene	10/27/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-18-2	1833239-05	Diethyl ether	10/27/2018	2	Y	n	u		2.0	0.33	ug/L
MW-18-2	1833239-05	Methyl iodide	10/27/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-18-2	1833239-05	Carbon tetrachloride	10/27/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-18-2	1833239-05	Benzene	10/27/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-18-2	1833239-05	sec-Butylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-18-2	1833239-05	n-Butylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-18-2	1833239-05	Bromoform	10/27/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-18-2	1833239-05	Chloromethane	10/27/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-18-2	1833239-05	Chlorobenzene	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-18-2	1833239-05	1,2-Dichlorobenzene	10/27/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-18-2	1833239-05	tert-Butylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-18-2	1833239-05	2-Chlorotoluene	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-18-2	1833239-05	4-Chlorotoluene	10/27/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-18-2	1833239-05	Bromochloromethane	10/27/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-18-2	1833239-05	Dibromochloromethane	10/27/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-18-2	1833239-05	1,2-Dibromo-3-chloropropane	10/27/2018	1	Y	n	u		1.0	0.89	ug/L
MW-18-2	1833239-05	1,2-Dibromoethane	10/27/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-18-2	1833239-05	Dibromomethane	10/27/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-18-2	1833239-05	Bromodichloromethane	10/27/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-18-2	1833239-05	Tetrahydrofuran	10/27/2018	20	Y	n	u		20	5.2	ug/L
MW-18-2	1833239-05	Ethyl methacrylate	10/27/2018	4	Y	n	u		4.0	1.3	ug/L
MW-18-2	1833239-05	Ethyl t-butyl ether	10/27/2018	0.5	Y	n	u		0.50	0.32	ug/L
MW-18-2	1833239-05	Hexachloroethane	10/27/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-18-2	1833239-05	2-Hexanone	10/27/2018	10	Y	n	u		10	5.0	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-18-2	1833239-05	Methacrylonitrile	10/27/2018	10	Y	n	u		10	2.3	ug/L
MW-18-2	1833239-05	Methyl ethyl ketone	10/27/2018	10	Y	n	u		10	3.3	ug/L
MW-18-2	1833239-05	Methyl isobutyl ketone	10/27/2018	10	Y	n	u		10	2.4	ug/L
MW-18-2	1833239-05	Methyl methacrylate	10/27/2018	5	Y	n	u		5.0	1.2	ug/L
MW-18-2	1833239-05	Bromomethane	10/27/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-18-2	1833239-05	trans-1,4-Dichloro-2-butene	10/27/2018	5	Y	n	u		5.0	1.8	ug/L
MW-18-2	1833239-05	Propionitrile	10/27/2018	20	Y	n	u		20	6.2	ug/L
MW-18-2	1833239-05	Chloroacetonitrile	10/27/2018	0	Y	y	v				ug/L
MW-18-2	1833239-05	p- & m-Xylenes	10/27/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-18-2	1833239-05	o-Xylene	10/27/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-18-2	1833239-05	n-Propylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-18-2	1833239-05	Pentachloroethane	10/27/2018	2	Y	n	u		2.0	0.63	ug/L
MW-18-2	1833239-05	Carbon disulfide	10/27/2018	1	Y	n	u		1.0	0.48	ug/L
MW-18-2	1833239-05	1,1-Dichloropropanone	10/27/2018	0	Y	y	v				ug/L
MW-18-2	1833239-05	Methyl acrylate	10/27/2018	0	Y	y	v				ug/L
MW-18-2	1833239-05	Nitrobenzene	10/27/2018	0	Y	y	v				ug/L
MW-18-2	1833239-05	2-Nitropropane	10/27/2018	0	Y	y	v				ug/L
MW-18-2	1833239-05	Bromobenzene	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-18-2	1833239-05	Toluene	10/27/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-18-2	1833239-05	Styrene	10/27/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-18-2	1833239-05	1-Chlorobutane	10/27/2018	0	Y	y	v				ug/L
MW-18-2	1833239-05	1,1,1,2-Tetrachloroethane	10/27/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-18-2	1833239-05	1,1,2,2-Tetrachloroethane	10/27/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-18-2	1833239-05	Tetrachloroethene	10/27/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-18-2	1833239-05	1,2,3-Trichlorobenzene	10/27/2018	0.5	Y	n	u		0.50	0.19	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-18-2	1833239-05	1,2,4-Trichlorobenzene	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-18-2	1833239-05	1,1,1-Trichloroethane	10/27/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-18-2	1833239-05	1,1,2-Trichloroethane	10/27/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-18-2	1833239-05	Trichloroethene	10/27/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-18-2	1833239-05	Trichlorofluoromethane	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-18-2	1833239-05	Acrylonitrile	10/27/2018	5	Y	n	u		5.0	1.5	ug/L
MW-18-2	1833239-05	1,1,2-Trichloro-1,2,2-trifluoroethane	10/27/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-18-2	1833239-05	1,2,4-Trimethylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-18-2	1833239-05	1,3,5-Trimethylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-18-2	1833239-05	Vinyl chloride	10/27/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-18-2	1833239-05	Acetone	10/27/2018	10	Y	n	u		10	6.6	ug/L
MW-18-2	1833239-05	t-Amyl Methyl ether	10/27/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-18-2	1833239-05	t-Butyl alcohol	10/27/2018	10	Y	n	u		10	9.4	ug/L
MW-18-2	1833239-05	1,2,3-Trichloropropane	10/27/2018	1	Y	n	u		1.0	0.78	ug/L
MW-18-2	1833239-05	Allyl chloride	10/27/2018	5	Y	n	u		5.0	0.47	ug/L
MW-18-3	1833239-04	1,2-Dichloroethane	10/27/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-18-3	1833239-04	1,1-Dichloroethane	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-18-3	1833239-04	Dichlorodifluoromethane	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-18-3	1833239-04	1,4-Dichlorobenzene	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-18-3	1833239-04	1,3-Dichlorobenzene	10/27/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-18-3	1833239-04	1,2-Dichlorobenzene	10/27/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-18-3	1833239-04	Dibromomethane	10/27/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-18-3	1833239-04	Ethylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-18-3	1833239-04	1,1-Dichloroethene	10/27/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-18-3	1833239-04	cis-1,2-Dichloroethene	10/27/2018	0.5	Y	n	u		0.50	0.27	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-18-3	1833239-04	trans-1,2-Dichloroethene	10/27/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-18-3	1833239-04	cis-1,3-Dichloropropene	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-18-3	1833239-04	1,3-Dichloropropane	10/27/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-18-3	1833239-04	2,2-Dichloropropane	10/27/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-18-3	1833239-04	1,1-Dichloropropene	10/27/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-18-3	1833239-04	1,2-Dibromoethane	10/27/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-18-3	1833239-04	sec-Butylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-18-3	1833239-04	trans-1,3-Dichloropropene	10/27/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-18-3	1833239-04	1,2-Dichloropropane	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-18-3	1833239-04	tert-Butylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-18-3	1833239-04	Chloroacetonitrile	10/27/2018	0	Y	y	v				ug/L
MW-18-3	1833239-04	Bromomethane	10/27/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-18-3	1833239-04	Benzene	10/27/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-18-3	1833239-04	Bromobenzene	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-18-3	1833239-04	Bromochloromethane	10/27/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-18-3	1833239-04	Bromodichloromethane	10/27/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-18-3	1833239-04	Bromoform	10/27/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-18-3	1833239-04	Carbon tetrachloride	10/27/2018	0.3	Y	y	v j		0.50	0.17	ug/L
MW-18-3	1833239-04	Hexachlorobutadiene	10/27/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-18-3	1833239-04	1,2-Dibromo-3-chloropropane	10/27/2018	1	Y	n	u		1.0	0.89	ug/L
MW-18-3	1833239-04	Chlorobenzene	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-18-3	1833239-04	Chloroethane	10/27/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-18-3	1833239-04	Chloroform	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-18-3	1833239-04	Chloromethane	10/27/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-18-3	1833239-04	2-Chlorotoluene	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-18-3	1833239-04	4-Chlorotoluene	10/27/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-18-3	1833239-04	Dibromochloromethane	10/27/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-18-3	1833239-04	n-Butylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-18-3	1833239-04	Methyl methacrylate	10/27/2018	5	Y	n	u		5.0	1.2	ug/L
MW-18-3	1833239-04	t-Butyl alcohol	10/27/2018	10	Y	n	u		10	9.4	ug/L
MW-18-3	1833239-04	Carbon disulfide	10/27/2018	1	Y	n	u		1.0	0.48	ug/L
MW-18-3	1833239-04	trans-1,4-Dichloro-2-butene	10/27/2018	5	Y	n	u		5.0	1.8	ug/L
MW-18-3	1833239-04	Diethyl ether	10/27/2018	2	Y	n	u		2.0	0.33	ug/L
MW-18-3	1833239-04	Ethyl methacrylate	10/27/2018	4	Y	n	u		4.0	1.3	ug/L
MW-18-3	1833239-04	Ethyl t-butyl ether	10/27/2018	0.5	Y	n	u		0.50	0.32	ug/L
MW-18-3	1833239-04	Hexachloroethane	10/27/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-18-3	1833239-04	2-Hexanone	10/27/2018	10	Y	n	u		10	5.0	ug/L
MW-18-3	1833239-04	Methacrylonitrile	10/27/2018	10	Y	n	u		10	2.3	ug/L
MW-18-3	1833239-04	t-Amyl Methyl ether	10/27/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-18-3	1833239-04	Methyl isobutyl ketone	10/27/2018	10	Y	n	u		10	2.4	ug/L
MW-18-3	1833239-04	1,1-Dichloropropanone	10/27/2018	0	Y	y	v				ug/L
MW-18-3	1833239-04	Propionitrile	10/27/2018	20	Y	n	u		20	6.2	ug/L
MW-18-3	1833239-04	Tetrahydrofuran	10/27/2018	20	Y	n	u		20	5.2	ug/L
MW-18-3	1833239-04	o-Xylene	10/27/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-18-3	1833239-04	Methyl iodide	10/27/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-18-3	1833239-04	1-Chlorobutane	10/27/2018	0	Y	y	v				ug/L
MW-18-3	1833239-04	Methyl acrylate	10/27/2018	0	Y	y	v				ug/L
MW-18-3	1833239-04	Pentachloroethane	10/27/2018	2	Y	n	u		2.0	0.63	ug/L
MW-18-3	1833239-04	2-Nitropropane	10/27/2018	0	Y	y	v				ug/L
MW-18-3	1833239-04	Isopropylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-18-3	1833239-04	p- & m-Xylenes	10/27/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-18-3	1833239-04	Methyl ethyl ketone	10/27/2018	10	Y	n	u		10	3.3	ug/L
MW-18-3	1833239-04	Tetrachloroethene	10/27/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-18-3	1833239-04	Allyl chloride	10/27/2018	5	Y	n	u		5.0	0.47	ug/L
MW-18-3	1833239-04	Naphthalene	10/27/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-18-3	1833239-04	Methylene chloride	10/27/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-18-3	1833239-04	Methyl t-butyl ether	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-18-3	1833239-04	n-Propylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-18-3	1833239-04	p-Isopropyltoluene	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-18-3	1833239-04	Styrene	10/27/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-18-3	1833239-04	Nitrobenzene	10/27/2018	0	Y	y	v				ug/L
MW-18-3	1833239-04	1,1,2,2-Tetrachloroethane	10/27/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-18-3	1833239-04	Toluene	10/27/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-18-3	1833239-04	1,2,3-Trichlorobenzene	10/27/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-18-3	1833239-04	1,3,5-Trimethylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-18-3	1833239-04	Acrylonitrile	10/27/2018	5	Y	n	u		5.0	1.5	ug/L
MW-18-3	1833239-04	Acetone	10/27/2018	10	Y	n	u		10	6.6	ug/L
MW-18-3	1833239-04	1,1,1,2-Tetrachloroethane	10/27/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-18-3	1833239-04	Vinyl chloride	10/27/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-18-3	1833239-04	1,2,4-Trichlorobenzene	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-18-3	1833239-04	1,2,4-Trimethylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-18-3	1833239-04	1,1,2-Trichloro-1,2,2-trifluoroethane	10/27/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-18-3	1833239-04	1,2,3-Trichloropropane	10/27/2018	1	Y	n	u		1.0	0.78	ug/L
MW-18-3	1833239-04	Trichlorofluoromethane	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-18-3	1833239-04	Trichloroethene	10/27/2018	0.5	Y	n	u		0.50	0.19	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-18-3	1833239-04	1,1,2-Trichloroethane	10/27/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-18-3	1833239-04	1,1,1-Trichloroethane	10/27/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-18-4	1833239-03	Methyl t-butyl ether	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-18-4	1833239-03	1,2-Dichloroethane	10/27/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-18-4	1833239-03	1,1-Dichloroethene	10/27/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-18-4	1833239-03	cis-1,2-Dichloroethene	10/27/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-18-4	1833239-03	trans-1,2-Dichloroethene	10/27/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-18-4	1833239-03	1,2-Dichloropropane	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-18-4	1833239-03	1,3-Dichloropropane	10/27/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-18-4	1833239-03	1,1-Dichloroethane	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-18-4	1833239-03	2,2-Dichloropropane	10/27/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-18-4	1833239-03	1,1-Dichloropropene	10/27/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-18-4	1833239-03	cis-1,3-Dichloropropene	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-18-4	1833239-03	trans-1,3-Dichloropropene	10/27/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-18-4	1833239-03	Ethylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-18-4	1833239-03	Hexachlorobutadiene	10/27/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-18-4	1833239-03	Isopropylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-18-4	1833239-03	Dichlorodifluoromethane	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-18-4	1833239-03	Methylene chloride	10/27/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-18-4	1833239-03	Naphthalene	10/27/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-18-4	1833239-03	p-Isopropyltoluene	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-18-4	1833239-03	Chloroform	10/27/2018	0.71	Y	y	v		0.50	0.14	ug/L
MW-18-4	1833239-03	Ethyl methacrylate	10/27/2018	4	Y	n	u		4.0	1.3	ug/L
MW-18-4	1833239-03	n-Propylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-18-4	1833239-03	Bromoform	10/27/2018	0.5	Y	n	u		0.50	0.46	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-18-4	1833239-03	Methyl iodide	10/27/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-18-4	1833239-03	n-Butylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-18-4	1833239-03	sec-Butylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-18-4	1833239-03	tert-Butylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-18-4	1833239-03	Carbon tetrachloride	10/27/2018	1.5	Y	y	v		0.50	0.17	ug/L
MW-18-4	1833239-03	Chloromethane	10/27/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-18-4	1833239-03	Chloroethane	10/27/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-18-4	1833239-03	1,4-Dichlorobenzene	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-18-4	1833239-03	2-Chlorotoluene	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-18-4	1833239-03	4-Chlorotoluene	10/27/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-18-4	1833239-03	Dibromochloromethane	10/27/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-18-4	1833239-03	1,2-Dibromo-3-chloropropane	10/27/2018	1	Y	n	u		1.0	0.89	ug/L
MW-18-4	1833239-03	1,2-Dibromoethane	10/27/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-18-4	1833239-03	Dibromomethane	10/27/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-18-4	1833239-03	1,2-Dichlorobenzene	10/27/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-18-4	1833239-03	1,3-Dichlorobenzene	10/27/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-18-4	1833239-03	Chlorobenzene	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-18-4	1833239-03	Tetrahydrofuran	10/27/2018	20	Y	n	u		20	5.2	ug/L
MW-18-4	1833239-03	Diethyl ether	10/27/2018	2	Y	n	u		2.0	0.33	ug/L
MW-18-4	1833239-03	Ethyl t-butyl ether	10/27/2018	0.5	Y	n	u		0.50	0.32	ug/L
MW-18-4	1833239-03	Hexachloroethane	10/27/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-18-4	1833239-03	2-Hexanone	10/27/2018	10	Y	n	u		10	5.0	ug/L
MW-18-4	1833239-03	Methacrylonitrile	10/27/2018	10	Y	n	u		10	2.3	ug/L
MW-18-4	1833239-03	Methyl ethyl ketone	10/27/2018	10	Y	n	u		10	3.3	ug/L
MW-18-4	1833239-03	Methyl isobutyl ketone	10/27/2018	10	Y	n	u		10	2.4	ug/L



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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-18-4	1833239-03	trans-1,4-Dichloro-2-butene	10/27/2018	5	Y	n	u		5.0	1.8	ug/L
MW-18-4	1833239-03	Propionitrile	10/27/2018	20	Y	n	u		20	6.2	ug/L
MW-18-4	1833239-03	t-Amyl Methyl ether	10/27/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-18-4	1833239-03	p- & m-Xylenes	10/27/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-18-4	1833239-03	o-Xylene	10/27/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-18-4	1833239-03	Chloroacetonitrile	10/27/2018	0	Y	y	v				ug/L
MW-18-4	1833239-03	1-Chlorobutane	10/27/2018	0	Y	y	v				ug/L
MW-18-4	1833239-03	1,1-Dichloropropanone	10/27/2018	0	Y	y	v				ug/L
MW-18-4	1833239-03	Methyl acrylate	10/27/2018	0	Y	y	v				ug/L
MW-18-4	1833239-03	Nitrobenzene	10/27/2018	0	Y	y	v				ug/L
MW-18-4	1833239-03	2-Nitropropane	10/27/2018	0	Y	y	v				ug/L
MW-18-4	1833239-03	Methyl methacrylate	10/27/2018	5	Y	n	u		5.0	1.2	ug/L
MW-18-4	1833239-03	1,2,3-Trichloropropane	10/27/2018	1	Y	n	u		1.0	0.78	ug/L
MW-18-4	1833239-03	1,1,1,2-Tetrachloroethane	10/27/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-18-4	1833239-03	1,1,2,2-Tetrachloroethane	10/27/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-18-4	1833239-03	Tetrachloroethene	10/27/2018	0.59	Y	y	v		0.50	0.23	ug/L
MW-18-4	1833239-03	Toluene	10/27/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-18-4	1833239-03	1,2,3-Trichlorobenzene	10/27/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-18-4	1833239-03	1,2,4-Trichlorobenzene	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-18-4	1833239-03	1,1,1-Trichloroethane	10/27/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-18-4	1833239-03	1,1,2-Trichloroethane	10/27/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-18-4	1833239-03	Carbon disulfide	10/27/2018	1	Y	n	u		1.0	0.48	ug/L
MW-18-4	1833239-03	Trichlorofluoromethane	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-18-4	1833239-03	t-Butyl alcohol	10/27/2018	10	Y	n	u		10	9.4	ug/L
MW-18-4	1833239-03	1,1,2-Trichloro-1,2,2-trifluoroethane	10/27/2018	0.5	Y	n	u		0.50	0.19	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-18-4	1833239-03	1,2,4-Trimethylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-18-4	1833239-03	1,3,5-Trimethylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-18-4	1833239-03	Vinyl chloride	10/27/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-18-4	1833239-03	Acetone	10/27/2018	10	Y	n	u		10	6.6	ug/L
MW-18-4	1833239-03	Acrylonitrile	10/27/2018	5	Y	n	u		5.0	1.5	ug/L
MW-18-4	1833239-03	Allyl chloride	10/27/2018	5	Y	n	u		5.0	0.47	ug/L
MW-18-4	1833239-03	Styrene	10/27/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-18-4	1833239-03	Trichloroethene	10/27/2018	0.81	Y	y	v		0.50	0.19	ug/L
MW-18-4	1833239-03	Bromomethane	10/27/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-18-4	1833239-03	Pentachloroethane	10/27/2018	2	Y	n	u		2.0	0.63	ug/L
MW-18-4	1833239-03	Bromobenzene	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-18-4	1833239-03	Benzene	10/27/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-18-4	1833239-03	Bromochloromethane	10/27/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-18-4	1833239-03	Bromodichloromethane	10/27/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-18-5	1833239-02	Trichloroethene	10/27/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-18-5	1833239-02	t-Butyl alcohol	10/27/2018	10	Y	n	u		10	9.4	ug/L
MW-18-5	1833239-02	t-Amyl Methyl ether	10/27/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-18-5	1833239-02	Allyl chloride	10/27/2018	5	Y	n	u		5.0	0.47	ug/L
MW-18-5	1833239-02	Acrylonitrile	10/27/2018	5	Y	n	u		5.0	1.5	ug/L
MW-18-5	1833239-02	Acetone	10/27/2018	10	Y	n	u		10	6.6	ug/L
MW-18-5	1833239-02	Vinyl chloride	10/27/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-18-5	1833239-02	1,3,5-Trimethylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-18-5	1833239-02	1,2,4-Trimethylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-18-5	1833239-02	1,1,2-Trichloro-1,2,2-trifluoroethane	10/27/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-18-5	1833239-02	trans-1,4-Dichloro-2-butene	10/27/2018	5	Y	n	u		5.0	1.8	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-18-5	1833239-02	Trichlorofluoromethane	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-18-5	1833239-02	Methyl iodide	10/27/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-18-5	1833239-02	1,1,2-Trichloroethane	10/27/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-18-5	1833239-02	1,1,1-Trichloroethane	10/27/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-18-5	1833239-02	1,2,4-Trichlorobenzene	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-18-5	1833239-02	1,2,3-Trichlorobenzene	10/27/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-18-5	1833239-02	Toluene	10/27/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-18-5	1833239-02	Tetrachloroethene	10/27/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-18-5	1833239-02	1,2,3-Trichloropropane	10/27/2018	1	Y	n	u		1.0	0.78	ug/L
MW-18-5	1833239-02	Propionitrile	10/27/2018	20	Y	n	u		20	6.2	ug/L
MW-18-5	1833239-02	Pentachloroethane	10/27/2018	2	Y	n	u		2.0	0.63	ug/L
MW-18-5	1833239-02	2-Nitropropane	10/27/2018	0	Y	y	v				ug/L
MW-18-5	1833239-02	Nitrobenzene	10/27/2018	0	Y	y	v				ug/L
MW-18-5	1833239-02	Methyl acrylate	10/27/2018	0	Y	y	v				ug/L
MW-18-5	1833239-02	1,1-Dichloropropanone	10/27/2018	0	Y	y	v				ug/L
MW-18-5	1833239-02	1-Chlorobutane	10/27/2018	0	Y	y	v				ug/L
MW-18-5	1833239-02	Chloroacetonitrile	10/27/2018	0	Y	y	v				ug/L
MW-18-5	1833239-02	o-Xylene	10/27/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-18-5	1833239-02	Hexachloroethane	10/27/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-18-5	1833239-02	Tetrahydrofuran	10/27/2018	20	Y	n	u		20	5.2	ug/L
MW-18-5	1833239-02	Ethyl methacrylate	10/27/2018	4	Y	n	u		4.0	1.3	ug/L
MW-18-5	1833239-02	Methyl methacrylate	10/27/2018	5	Y	n	u		5.0	1.2	ug/L
MW-18-5	1833239-02	Methyl isobutyl ketone	10/27/2018	10	Y	n	u		10	2.4	ug/L
MW-18-5	1833239-02	Methyl ethyl ketone	10/27/2018	10	Y	n	u		10	3.3	ug/L
MW-18-5	1833239-02	Methacrylonitrile	10/27/2018	10	Y	n	u		10	2.3	ug/L

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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-18-5	1833239-02	Carbon disulfide	10/27/2018	1	Y	n	u		1.0	0.48	ug/L
MW-18-5	1833239-02	2-Hexanone	10/27/2018	10	Y	n	u		10	5.0	ug/L
MW-18-5	1833239-02	1,1,2,2-Tetrachloroethane	10/27/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-18-5	1833239-02	Ethyl t-butyl ether	10/27/2018	0.5	Y	n	u		0.50	0.32	ug/L
MW-18-5	1833239-02	p- & m-Xylenes	10/27/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-18-5	1833239-02	Carbon tetrachloride	10/27/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-18-5	1833239-02	1,2-Dichlorobenzene	10/27/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-18-5	1833239-02	Dibromomethane	10/27/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-18-5	1833239-02	1,2-Dibromoethane	10/27/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-18-5	1833239-02	1,2-Dibromo-3-chloropropane	10/27/2018	1	Y	n	u		1.0	0.89	ug/L
MW-18-5	1833239-02	Dibromochloromethane	10/27/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-18-5	1833239-02	4-Chlorotoluene	10/27/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-18-5	1833239-02	2-Chlorotoluene	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-18-5	1833239-02	Chloromethane	10/27/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-18-5	1833239-02	Chloroform	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-18-5	1833239-02	1,3-Dichlorobenzene	10/27/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-18-5	1833239-02	Chlorobenzene	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-18-5	1833239-02	Bromodichloromethane	10/27/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-18-5	1833239-02	tert-Butylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-18-5	1833239-02	sec-Butylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-18-5	1833239-02	n-Butylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-18-5	1833239-02	Bromoform	10/27/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-18-5	1833239-02	1,1,1,2-Tetrachloroethane	10/27/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-18-5	1833239-02	Bromochloromethane	10/27/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-18-5	1833239-02	Diethyl ether	10/27/2018	2	Y	n	u		2.0	0.33	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-18-5	1833239-02	Bromobenzene	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-18-5	1833239-02	Benzene	10/27/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-18-5	1833239-02	Bromomethane	10/27/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-18-5	1833239-02	Chloroethane	10/27/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-18-5	1833239-02	Methylene chloride	10/27/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-18-5	1833239-02	Styrene	10/27/2018	0.14	Y	y	v j		0.50	0.12	ug/L
MW-18-5	1833239-02	1,4-Dichlorobenzene	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-18-5	1833239-02	Naphthalene	10/27/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-18-5	1833239-02	Methyl t-butyl ether	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-18-5	1833239-02	n-Propylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-18-5	1833239-02	p-Isopropyltoluene	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-18-5	1833239-02	Isopropylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-18-5	1833239-02	Hexachlorobutadiene	10/27/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-18-5	1833239-02	Ethylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-18-5	1833239-02	trans-1,3-Dichloropropene	10/27/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-18-5	1833239-02	cis-1,3-Dichloropropene	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-18-5	1833239-02	1,2-Dichloroethane	10/27/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-18-5	1833239-02	2,2-Dichloropropane	10/27/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-18-5	1833239-02	1,3-Dichloropropane	10/27/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-18-5	1833239-02	1,2-Dichloropropane	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-18-5	1833239-02	trans-1,2-Dichloroethene	10/27/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-18-5	1833239-02	cis-1,2-Dichloroethene	10/27/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-18-5	1833239-02	1,1-Dichloroethene	10/27/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-18-5	1833239-02	1,1-Dichloroethane	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-18-5	1833239-02	1,1-Dichloropropene	10/27/2018	0.5	Y	n	u		0.50	0.19	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-18-5	1833239-02	Dichlorodifluoromethane	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-21-2	1833239-09	1,3,5-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-21-2	1833239-09	Vinyl chloride	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-21-2	1833239-09	Acetone	10/28/2018	10	Y	n	u		10	6.6	ug/L
MW-21-2	1833239-09	Acrylonitrile	10/28/2018	5	Y	n	u		5.0	1.5	ug/L
MW-21-2	1833239-09	Allyl chloride	10/28/2018	5	Y	n	u		5.0	0.47	ug/L
MW-21-2	1833239-09	t-Butyl alcohol	10/28/2018	10	Y	n	u		10	9.4	ug/L
MW-21-2	1833239-09	Trichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-21-2	1833239-09	Carbon disulfide	10/28/2018	1	Y	n	u		1.0	0.48	ug/L
MW-21-2	1833239-09	t-Amyl Methyl ether	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-21-2	1833239-09	1,2,4-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-21-2	1833239-09	1,1,2-Trichloro-1,2,2-trifluoroethane	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-21-2	1833239-09	1,2,4-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-21-2	1833239-09	Trichlorofluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-21-2	1833239-09	Tetrachloroethene	10/28/2018	0.42	Y	y	v j		0.50	0.23	ug/L
MW-21-2	1833239-09	1,1,2-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-21-2	1833239-09	1,1,1-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-21-2	1833239-09	trans-1,4-Dichloro-2-butene	10/28/2018	5	Y	n	u		5.0	1.8	ug/L
MW-21-2	1833239-09	Toluene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-21-2	1833239-09	1,2,3-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-21-2	1833239-09	1,2,3-Trichloropropane	10/28/2018	1	Y	n	u		1.0	0.78	ug/L
MW-21-2	1833239-09	Tetrahydrofuran	10/28/2018	20	Y	n	u		20	5.2	ug/L
MW-21-2	1833239-09	1,1,2,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-21-2	1833239-09	n-Propylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-21-2	1833239-09	Pentachloroethane	10/28/2018	2	Y	n	u	UJ	2.0	0.63	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-21-2	1833239-09	Nitrobenzene	10/28/2018	0	Y	y	v				ug/L
MW-21-2	1833239-09	Methyl acrylate	10/28/2018	0	Y	y	v				ug/L
MW-21-2	1833239-09	1,1-Dichloropropanone	10/28/2018	0	Y	y	v				ug/L
MW-21-2	1833239-09	1-Chlorobutane	10/28/2018	0	Y	y	v				ug/L
MW-21-2	1833239-09	Chloroacetonitrile	10/28/2018	0	Y	y	v				ug/L
MW-21-2	1833239-09	Methyl methacrylate	10/28/2018	5	Y	n	u		5.0	1.2	ug/L
MW-21-2	1833239-09	p- & m-Xylenes	10/28/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-21-2	1833239-09	Diethyl ether	10/28/2018	2	Y	n	u		2.0	0.33	ug/L
MW-21-2	1833239-09	Propionitrile	10/28/2018	20	Y	n	u		20	6.2	ug/L
MW-21-2	1833239-09	2-Nitropropane	10/28/2018	0	Y	y	v				ug/L
MW-21-2	1833239-09	Methyl isobutyl ketone	10/28/2018	10	Y	n	u		10	2.4	ug/L
MW-21-2	1833239-09	Methyl ethyl ketone	10/28/2018	10	Y	n	u		10	3.3	ug/L
MW-21-2	1833239-09	Methacrylonitrile	10/28/2018	10	Y	n	u		10	2.3	ug/L
MW-21-2	1833239-09	2-Hexanone	10/28/2018	10	Y	n	u		10	5.0	ug/L
MW-21-2	1833239-09	Hexachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-21-2	1833239-09	Ethyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.32	ug/L
MW-21-2	1833239-09	Ethyl methacrylate	10/28/2018	4	Y	n	u		4.0	1.3	ug/L
MW-21-2	1833239-09	o-Xylene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-21-2	1833239-09	tert-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-21-2	1833239-09	1,2-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-21-2	1833239-09	Dibromomethane	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-21-2	1833239-09	1,2-Dibromoethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-21-2	1833239-09	1,2-Dibromo-3-chloropropane	10/28/2018	1	Y	n	u		1.0	0.89	ug/L
MW-21-2	1833239-09	Dibromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-21-2	1833239-09	4-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.093	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-21-2	1833239-09	2-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-21-2	1833239-09	Chloroform	10/28/2018	0.16	Y	y	v j		0.50	0.14	ug/L
MW-21-2	1833239-09	Benzene	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-21-2	1833239-09	1,3-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-21-2	1833239-09	Carbon tetrachloride	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-21-2	1833239-09	Chloromethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-21-2	1833239-09	sec-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-21-2	1833239-09	n-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-21-2	1833239-09	Bromoform	10/28/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-21-2	1833239-09	Bromodichloromethane	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-21-2	1833239-09	Bromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-21-2	1833239-09	Bromobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-21-2	1833239-09	Methyl iodide	10/28/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-21-2	1833239-09	Bromomethane	10/28/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-21-2	1833239-09	1,1,1,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-21-2	1833239-09	Chlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-21-2	1833239-09	Ethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-21-2	1833239-09	Naphthalene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-21-2	1833239-09	Chloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-21-2	1833239-09	Styrene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-21-2	1833239-09	1,4-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-21-2	1833239-09	Methyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-21-2	1833239-09	Methylene chloride	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-21-2	1833239-09	p-Isopropyltoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-21-2	1833239-09	Hexachlorobutadiene	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L



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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-21-2	1833239-09	trans-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-21-2	1833239-09	cis-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-21-2	1833239-09	1,1-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-21-2	1833239-09	Dichlorodifluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-21-2	1833239-09	Isopropylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-21-2	1833239-09	1,2-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-21-2	1833239-09	1,1-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-21-2	1833239-09	cis-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-21-2	1833239-09	trans-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-21-2	1833239-09	1,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-21-2	1833239-09	1,3-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-21-2	1833239-09	2,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-21-2	1833239-09	1,1-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-21-3	1833239-08	1,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-21-3	1833239-08	Dichlorodifluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-21-3	1833239-08	Methyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-21-3	1833239-08	1,1-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-21-3	1833239-08	1,2-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-21-3	1833239-08	1,1-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-21-3	1833239-08	Naphthalene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-21-3	1833239-08	cis-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-21-3	1833239-08	trans-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-21-3	1833239-08	1,3-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-21-3	1833239-08	2,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-21-3	1833239-08	1,1-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-21-3	1833239-08	cis-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-21-3	1833239-08	trans-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-21-3	1833239-08	Ethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-21-3	1833239-08	Hexachlorobutadiene	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-21-3	1833239-08	Isopropylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-21-3	1833239-08	Methylene chloride	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-21-3	1833239-08	Bromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-21-3	1833239-08	p-Isopropyltoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-21-3	1833239-08	Chloromethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-21-3	1833239-08	Bromobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-21-3	1833239-08	trans-1,4-Dichloro-2-butene	10/28/2018	5	Y	n	u		5.0	1.8	ug/L
MW-21-3	1833239-08	Bromodichloromethane	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-21-3	1833239-08	n-Propylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-21-3	1833239-08	n-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-21-3	1833239-08	sec-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-21-3	1833239-08	tert-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-21-3	1833239-08	Carbon tetrachloride	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-21-3	1833239-08	Chlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-21-3	1833239-08	Bromoform	10/28/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-21-3	1833239-08	Chloroform	10/28/2018	0.42	Y	y	v j		0.50	0.14	ug/L
MW-21-3	1833239-08	1,4-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-21-3	1833239-08	Methyl iodide	10/28/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-21-3	1833239-08	2-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-21-3	1833239-08	4-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-21-3	1833239-08	Dibromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-21-3	1833239-08	1,2-Dibromo-3-chloropropane	10/28/2018	1	Y	n	u		1.0	0.89	ug/L
MW-21-3	1833239-08	1,2-Dibromoethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-21-3	1833239-08	Dibromomethane	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-21-3	1833239-08	1,2-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-21-3	1833239-08	1,3-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-21-3	1833239-08	Chloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-21-3	1833239-08	p- & m-Xylenes	10/28/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-21-3	1833239-08	Ethyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.32	ug/L
MW-21-3	1833239-08	t-Butyl alcohol	10/28/2018	10	Y	n	u		10	9.4	ug/L
MW-21-3	1833239-08	Bromomethane	10/28/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-21-3	1833239-08	2-Hexanone	10/28/2018	10	Y	n	u		10	5.0	ug/L
MW-21-3	1833239-08	Methacrylonitrile	10/28/2018	10	Y	n	u		10	2.3	ug/L
MW-21-3	1833239-08	Methyl ethyl ketone	10/28/2018	10	Y	n	u		10	3.3	ug/L
MW-21-3	1833239-08	Methyl isobutyl ketone	10/28/2018	10	Y	n	u		10	2.4	ug/L
MW-21-3	1833239-08	Methyl methacrylate	10/28/2018	5	Y	n	u		5.0	1.2	ug/L
MW-21-3	1833239-08	Styrene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-21-3	1833239-08	Tetrahydrofuran	10/28/2018	20	Y	n	u		20	5.2	ug/L
MW-21-3	1833239-08	Ethyl methacrylate	10/28/2018	4	Y	n	u		4.0	1.3	ug/L
MW-21-3	1833239-08	o-Xylene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-21-3	1833239-08	Chloroacetonitrile	10/28/2018	0	Y	y	v				ug/L
MW-21-3	1833239-08	1-Chlorobutane	10/28/2018	0	Y	y	v				ug/L
MW-21-3	1833239-08	1,1-Dichloropropanone	10/28/2018	0	Y	y	v				ug/L
MW-21-3	1833239-08	Methyl acrylate	10/28/2018	0	Y	y	v				ug/L
MW-21-3	1833239-08	Nitrobenzene	10/28/2018	0	Y	y	v				ug/L
MW-21-3	1833239-08	Pentachloroethane	10/28/2018	2	Y	n	u	UJ	2.0	0.63	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-21-3	1833239-08	2-Nitropropane	10/28/2018	0	Y	y	v				ug/L
MW-21-3	1833239-08	Benzene	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-21-3	1833239-08	Propionitrile	10/28/2018	20	Y	n	u		20	6.2	ug/L
MW-21-3	1833239-08	Trichlorofluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-21-3	1833239-08	1,1,1,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-21-3	1833239-08	1,1,2,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-21-3	1833239-08	Tetrachloroethene	10/28/2018	0.76	Y	y	v		0.50	0.23	ug/L
MW-21-3	1833239-08	Toluene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-21-3	1833239-08	1,2,3-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-21-3	1833239-08	1,2,4-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-21-3	1833239-08	1,1,1-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-21-3	1833239-08	Hexachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-21-3	1833239-08	Trichloroethene	10/28/2018	0.76	Y	y	v		0.50	0.19	ug/L
MW-21-3	1833239-08	Diethyl ether	10/28/2018	2	Y	n	u		2.0	0.33	ug/L
MW-21-3	1833239-08	1,2,3-Trichloropropane	10/28/2018	1	Y	n	u		1.0	0.78	ug/L
MW-21-3	1833239-08	1,1,2-Trichloro-1,2,2-trifluoroethane	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-21-3	1833239-08	1,2,4-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-21-3	1833239-08	1,3,5-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-21-3	1833239-08	Vinyl chloride	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-21-3	1833239-08	Acetone	10/28/2018	10	Y	n	u		10	6.6	ug/L
MW-21-3	1833239-08	Acrylonitrile	10/28/2018	5	Y	n	u		5.0	1.5	ug/L
MW-21-3	1833239-08	Allyl chloride	10/28/2018	5	Y	n	u		5.0	0.47	ug/L
MW-21-3	1833239-08	t-Amyl Methyl ether	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-21-3	1833239-08	Carbon disulfide	10/28/2018	1	Y	n	u		1.0	0.48	ug/L
MW-21-3	1833239-08	1,1,2-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-21-4	1833239-07	Bromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-21-4	1833239-07	Bromomethane	10/28/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-21-4	1833239-07	trans-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-21-4	1833239-07	Styrene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-21-4	1833239-07	1,2-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-21-4	1833239-07	1,1-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-21-4	1833239-07	cis-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-21-4	1833239-07	trans-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-21-4	1833239-07	1,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-21-4	1833239-07	1,3-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-21-4	1833239-07	2,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-21-4	1833239-07	Dichlorodifluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-21-4	1833239-07	cis-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-21-4	1833239-07	1,4-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-21-4	1833239-07	Ethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-21-4	1833239-07	Hexachlorobutadiene	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-21-4	1833239-07	Isopropylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-21-4	1833239-07	p-Isopropyltoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-21-4	1833239-07	Methylene chloride	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-21-4	1833239-07	Methyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-21-4	1833239-07	Naphthalene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-21-4	1833239-07	Bromobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-21-4	1833239-07	1,1-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-21-4	1833239-07	Chloromethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-21-4	1833239-07	Bromodichloromethane	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-21-4	1833239-07	Bromoform	10/28/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-21-4	1833239-07	Methyl iodide	10/28/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-21-4	1833239-07	n-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-21-4	1833239-07	sec-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-21-4	1833239-07	tert-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-21-4	1833239-07	Carbon tetrachloride	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-21-4	1833239-07	Chlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-21-4	1833239-07	1,1-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-21-4	1833239-07	Chloroform	10/28/2018	4	Y	y	v		0.50	0.14	ug/L
MW-21-4	1833239-07	1,1,1,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-21-4	1833239-07	2-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-21-4	1833239-07	4-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-21-4	1833239-07	Dibromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-21-4	1833239-07	1,2-Dibromo-3-chloropropane	10/28/2018	1	Y	n	u		1.0	0.89	ug/L
MW-21-4	1833239-07	1,2-Dibromoethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-21-4	1833239-07	Dibromomethane	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-21-4	1833239-07	1,2-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-21-4	1833239-07	1,3-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-21-4	1833239-07	Chloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-21-4	1833239-07	o-Xylene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-21-4	1833239-07	n-Propylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-21-4	1833239-07	Hexachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-21-4	1833239-07	2-Hexanone	10/28/2018	10	Y	n	u		10	5.0	ug/L
MW-21-4	1833239-07	Methacrylonitrile	10/28/2018	10	Y	n	u		10	2.3	ug/L
MW-21-4	1833239-07	Methyl ethyl ketone	10/28/2018	10	Y	n	u		10	3.3	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-21-4	1833239-07	Methyl isobutyl ketone	10/28/2018	10	Y	n	u		10	2.4	ug/L
MW-21-4	1833239-07	Methyl methacrylate	10/28/2018	5	Y	n	u		5.0	1.2	ug/L
MW-21-4	1833239-07	Propionitrile	10/28/2018	20	Y	n	u		20	6.2	ug/L
MW-21-4	1833239-07	Ethyl methacrylate	10/28/2018	4	Y	n	u		4.0	1.3	ug/L
MW-21-4	1833239-07	p- & m-Xylenes	10/28/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-21-4	1833239-07	Diethyl ether	10/28/2018	2	Y	n	u		2.0	0.33	ug/L
MW-21-4	1833239-07	Chloroacetonitrile	10/28/2018	0	Y	y	v				ug/L
MW-21-4	1833239-07	1-Chlorobutane	10/28/2018	0	Y	y	v				ug/L
MW-21-4	1833239-07	1,1-Dichloropropanone	10/28/2018	0	Y	y	v				ug/L
MW-21-4	1833239-07	Methyl acrylate	10/28/2018	0	Y	y	v				ug/L
MW-21-4	1833239-07	Nitrobenzene	10/28/2018	0	Y	y	v				ug/L
MW-21-4	1833239-07	2-Nitropropane	10/28/2018	0	Y	y	v				ug/L
MW-21-4	1833239-07	Benzene	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-21-4	1833239-07	Pentachloroethane	10/28/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-21-4	1833239-07	Tetrahydrofuran	10/28/2018	20	Y	n	u		20	5.2	ug/L
MW-21-4	1833239-07	1,1,2-Trichloro-1,2,2-trifluoroethane	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-21-4	1833239-07	1,1,2,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-21-4	1833239-07	Tetrachloroethene	10/28/2018	0.97	Y	y	v		0.50	0.23	ug/L
MW-21-4	1833239-07	Toluene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-21-4	1833239-07	1,2,3-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-21-4	1833239-07	1,2,4-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-21-4	1833239-07	1,1,1-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-21-4	1833239-07	1,1,2-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-21-4	1833239-07	Trichloroethene	10/28/2018	0.32	Y	y	v j		0.50	0.19	ug/L
MW-21-4	1833239-07	Ethyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.32	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-21-4	1833239-07	1,2,3-Trichloropropane	10/28/2018	1	Y	n	u		1.0	0.78	ug/L
MW-21-4	1833239-07	Allyl chloride	10/28/2018	5	Y	n	u		5.0	0.47	ug/L
MW-21-4	1833239-07	1,2,4-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-21-4	1833239-07	1,3,5-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-21-4	1833239-07	Vinyl chloride	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-21-4	1833239-07	Acetone	10/28/2018	10	Y	n	u		10	6.6	ug/L
MW-21-4	1833239-07	Acrylonitrile	10/28/2018	5	Y	n	u		5.0	1.5	ug/L
MW-21-4	1833239-07	t-Amyl Methyl ether	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-21-4	1833239-07	Carbon disulfide	10/28/2018	1	Y	n	u		1.0	0.48	ug/L
MW-21-4	1833239-07	trans-1,4-Dichloro-2-butene	10/28/2018	5	Y	n	u		5.0	1.8	ug/L
MW-21-4	1833239-07	Trichlorofluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-21-4	1833239-07	t-Butyl alcohol	10/28/2018	10	Y	n	u		10	9.4	ug/L
MW-21-5	1833239-06	1,4-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-21-5	1833239-06	Dichlorodifluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-21-5	1833239-06	1,1-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-21-5	1833239-06	1,2-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-21-5	1833239-06	1,1-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-21-5	1833239-06	cis-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-21-5	1833239-06	trans-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-21-5	1833239-06	1,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-21-5	1833239-06	n-Propylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-21-5	1833239-06	1,1-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-21-5	1833239-06	Dibromomethane	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-21-5	1833239-06	1,3-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-21-5	1833239-06	trans-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L



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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-21-5	1833239-06	Ethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-21-5	1833239-06	Hexachlorobutadiene	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-21-5	1833239-06	Isopropylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-21-5	1833239-06	p-Isopropyltoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-21-5	1833239-06	Methylene chloride	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-21-5	1833239-06	Methyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-21-5	1833239-06	Naphthalene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-21-5	1833239-06	1,3-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-21-5	1833239-06	Chlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-21-5	1833239-06	1-Chlorobutane	10/28/2018	0	Y	y	v				ug/L
MW-21-5	1833239-06	Pentachloroethane	10/28/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-21-5	1833239-06	Benzene	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-21-5	1833239-06	Bromobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-21-5	1833239-06	Bromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-21-5	1833239-06	Bromodichloromethane	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-21-5	1833239-06	Bromoform	10/28/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-21-5	1833239-06	n-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-21-5	1833239-06	sec-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-21-5	1833239-06	Bromomethane	10/28/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-21-5	1833239-06	Carbon tetrachloride	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-21-5	1833239-06	1,2-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-21-5	1833239-06	Chloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-21-5	1833239-06	Chloroform	10/28/2018	5.9	Y	y	v		0.50	0.14	ug/L
MW-21-5	1833239-06	Chloromethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-21-5	1833239-06	2-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-21-5	1833239-06	4-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-21-5	1833239-06	Dibromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-21-5	1833239-06	1,2-Dibromo-3-chloropropane	10/28/2018	1	Y	n	u		1.0	0.89	ug/L
MW-21-5	1833239-06	1,2-Dibromoethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-21-5	1833239-06	cis-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-21-5	1833239-06	tert-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-21-5	1833239-06	Propionitrile	10/28/2018	20	Y	n	u		20	6.2	ug/L
MW-21-5	1833239-06	Diethyl ether	10/28/2018	2	Y	n	u		2.0	0.33	ug/L
MW-21-5	1833239-06	Ethyl methacrylate	10/28/2018	4	Y	n	u		4.0	1.3	ug/L
MW-21-5	1833239-06	Ethyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.32	ug/L
MW-21-5	1833239-06	Hexachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-21-5	1833239-06	2-Hexanone	10/28/2018	10	Y	n	u		10	5.0	ug/L
MW-21-5	1833239-06	Methacrylonitrile	10/28/2018	10	Y	n	u		10	2.3	ug/L
MW-21-5	1833239-06	Methyl ethyl ketone	10/28/2018	10	Y	n	u		10	3.3	ug/L
MW-21-5	1833239-06	Styrene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-21-5	1833239-06	trans-1,4-Dichloro-2-butene	10/28/2018	5	Y	n	u		5.0	1.8	ug/L
MW-21-5	1833239-06	2,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-21-5	1833239-06	Methyl isobutyl ketone	10/28/2018	10	Y	n	u		10	2.4	ug/L
MW-21-5	1833239-06	Tetrahydrofuran	10/28/2018	20	Y	n	u		20	5.2	ug/L
MW-21-5	1833239-06	p- & m-Xylenes	10/28/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-21-5	1833239-06	o-Xylene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-21-5	1833239-06	Chloroacetonitrile	10/28/2018	0	Y	y	v				ug/L
MW-21-5	1833239-06	2-Nitropropane	10/28/2018	0	Y	y	v				ug/L
MW-21-5	1833239-06	Nitrobenzene	10/28/2018	0	Y	y	v				ug/L
MW-21-5	1833239-06	Methyl acrylate	10/28/2018	0	Y	y	v				ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-21-5	1833239-06	1,1-Dichloropropanone	10/28/2018	0	Y	y	v				ug/L
MW-21-5	1833239-06	Methyl methacrylate	10/28/2018	5	Y	n	u		5.0	1.2	ug/L
MW-21-5	1833239-06	Toluene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-21-5	1833239-06	1,1,1,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-21-5	1833239-06	1,1,2,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-21-5	1833239-06	Methyl iodide	10/28/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-21-5	1833239-06	Tetrachloroethene	10/28/2018	0.74	Y	y	v		0.50	0.23	ug/L
MW-21-5	1833239-06	Carbon disulfide	10/28/2018	1	Y	n	u		1.0	0.48	ug/L
MW-21-5	1833239-06	1,2,3-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-21-5	1833239-06	1,2,4-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-21-5	1833239-06	1,1,1-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-21-5	1833239-06	1,1,2-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-21-5	1833239-06	Trichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-21-5	1833239-06	Trichlorofluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-21-5	1833239-06	Allyl chloride	10/28/2018	5	Y	n	u		5.0	0.47	ug/L
MW-21-5	1833239-06	1,2,3-Trichloropropane	10/28/2018	1	Y	n	u		1.0	0.78	ug/L
MW-21-5	1833239-06	t-Amyl Methyl ether	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-21-5	1833239-06	t-Butyl alcohol	10/28/2018	10	Y	n	u		10	9.4	ug/L
MW-21-5	1833239-06	Acrylonitrile	10/28/2018	5	Y	n	u		5.0	1.5	ug/L
MW-21-5	1833239-06	Acetone	10/28/2018	10	Y	n	u		10	6.6	ug/L
MW-21-5	1833239-06	Vinyl chloride	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-21-5	1833239-06	1,3,5-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-21-5	1833239-06	1,2,4-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-21-5	1833239-06	1,1,2-Trichloro-1,2,2-trifluoroethane	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
SB-2-102218	1833239-12	Toluene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
SB-2-102218	1833239-12	Allyl chloride	10/28/2018	5	Y	n	u		5.0	0.47	ug/L
SB-2-102218	1833239-12	Trichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
SB-2-102218	1833239-12	Acetone	10/28/2018	10	Y	n	u		10	6.6	ug/L
SB-2-102218	1833239-12	Vinyl chloride	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
SB-2-102218	1833239-12	1,3,5-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
SB-2-102218	1833239-12	1,2,4-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
SB-2-102218	1833239-12	1,1,2-Trichloro-1,2,2-trifluoroethane	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
SB-2-102218	1833239-12	1,2,3-Trichloropropane	10/28/2018	1	Y	n	u		1.0	0.78	ug/L
SB-2-102218	1833239-12	Trichlorofluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
SB-2-102218	1833239-12	Acrylonitrile	10/28/2018	5	Y	n	u		5.0	1.5	ug/L
SB-2-102218	1833239-12	1,1,2-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
SB-2-102218	1833239-12	1,1,1-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
SB-2-102218	1833239-12	1,2,4-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
SB-2-102218	1833239-12	p-Isopropyltoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
SB-2-102218	1833239-12	1,2,3-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
SB-2-102218	1833239-12	Tetrachloroethene	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
SB-2-102218	1833239-12	1,1,2,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
SB-2-102218	1833239-12	1,1,1,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
SB-2-102218	1833239-12	n-Propylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
SB-2-102218	1833239-12	Methylene chloride	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
SB-2-102218	1833239-12	Methyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
SB-2-102218	1833239-12	Styrene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
SB-2-102218	1833239-12	Naphthalene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
SB-2-102218	1833239-12	Methyl isobutyl ketone	10/28/2018	10	Y	n	u		10	2.4	ug/L
SB-2-102218	1833239-12	2-Nitropropane	10/28/2018	0	Y	y	v				ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
SB-2-102218	1833239-12	Nitrobenzene	10/28/2018	0	Y	y	v				ug/L
SB-2-102218	1833239-12	Methyl acrylate	10/28/2018	0	Y	y	v				ug/L
SB-2-102218	1833239-12	1,1-Dichloropropanone	10/28/2018	0	Y	y	v				ug/L
SB-2-102218	1833239-12	Isopropylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
SB-2-102218	1833239-12	Chloroacetonitrile	10/28/2018	0	Y	y	v				ug/L
SB-2-102218	1833239-12	o-Xylene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
SB-2-102218	1833239-12	p- & m-Xylenes	10/28/2018	0.5	Y	n	u		0.50	0.34	ug/L
SB-2-102218	1833239-12	Tetrahydrofuran	10/28/2018	20	Y	n	u		20	5.2	ug/L
SB-2-102218	1833239-12	Propionitrile	10/28/2018	20	Y	n	u		20	6.2	ug/L
SB-2-102218	1833239-12	1-Chlorobutane	10/28/2018	0	Y	y	v				ug/L
SB-2-102218	1833239-12	Methyl methacrylate	10/28/2018	5	Y	n	u		5.0	1.2	ug/L
SB-2-102218	1833239-12	t-Amyl Methyl ether	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
SB-2-102218	1833239-12	Methyl ethyl ketone	10/28/2018	10	Y	n	u		10	3.3	ug/L
SB-2-102218	1833239-12	Methacrylonitrile	10/28/2018	10	Y	n	u		10	2.3	ug/L
SB-2-102218	1833239-12	2-Hexanone	10/28/2018	10	Y	n	u		10	5.0	ug/L
SB-2-102218	1833239-12	Hexachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
SB-2-102218	1833239-12	Ethyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.32	ug/L
SB-2-102218	1833239-12	Ethyl methacrylate	10/28/2018	4	Y	n	u		4.0	1.3	ug/L
SB-2-102218	1833239-12	Diethyl ether	10/28/2018	2	Y	n	u		2.0	0.33	ug/L
SB-2-102218	1833239-12	trans-1,4-Dichloro-2-butene	10/28/2018	5	Y	n	u		5.0	1.8	ug/L
SB-2-102218	1833239-12	Carbon disulfide	10/28/2018	1	Y	n	u		1.0	0.48	ug/L
SB-2-102218	1833239-12	t-Butyl alcohol	10/28/2018	10	Y	n	u		10	9.4	ug/L
SB-2-102218	1833239-12	Pentachloroethane	10/28/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
SB-2-102218	1833239-12	Bromoform	10/28/2018	0.5	Y	n	u		0.50	0.46	ug/L
SB-2-102218	1833239-12	Dibromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
SB-2-102218	1833239-12	4-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.093	ug/L
SB-2-102218	1833239-12	2-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
SB-2-102218	1833239-12	Chloromethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
SB-2-102218	1833239-12	Chloroform	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
SB-2-102218	1833239-12	Chloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
SB-2-102218	1833239-12	Carbon tetrachloride	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
SB-2-102218	1833239-12	1,2-Dibromo-3-chloropropane	10/28/2018	1	Y	n	u		1.0	0.89	ug/L
SB-2-102218	1833239-12	sec-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
SB-2-102218	1833239-12	n-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
SB-2-102218	1833239-12	Bromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
SB-2-102218	1833239-12	Bromobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
SB-2-102218	1833239-12	Benzene	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
SB-2-102218	1833239-12	Hexachlorobutadiene	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
SB-2-102218	1833239-12	Chlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
SB-2-102218	1833239-12	Bromomethane	10/28/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
SB-2-102218	1833239-12	Methyl iodide	10/28/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
SB-2-102218	1833239-12	tert-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
SB-2-102218	1833239-12	1,3-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
SB-2-102218	1833239-12	Ethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
SB-2-102218	1833239-12	trans-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
SB-2-102218	1833239-12	cis-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
SB-2-102218	1833239-12	Bromodichloromethane	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
SB-2-102218	1833239-12	1,2-Dibromoethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
SB-2-102218	1833239-12	2,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
SB-2-102218	1833239-12	1,1-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L

SDG: 1833239

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
SB-2-102218	1833239-12	1,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
SB-2-102218	1833239-12	trans-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
SB-2-102218	1833239-12	Dichlorodifluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
SB-2-102218	1833239-12	cis-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
SB-2-102218	1833239-12	1,1-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
SB-2-102218	1833239-12	1,2-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
SB-2-102218	1833239-12	1,1-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
SB-2-102218	1833239-12	Dibromomethane	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
SB-2-102218	1833239-12	1,2-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
SB-2-102218	1833239-12	1,3-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
SB-2-102218	1833239-12	1,4-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-5-102218	1833239-01	Methylene chloride	10/27/2018	0.5	Y	n	u		0.50	0.21	ug/L
TB-5-102218	1833239-01	p-Isopropyltoluene	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-5-102218	1833239-01	Isopropylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-5-102218	1833239-01	1,1-Dichloropropene	10/27/2018	0.5	Y	n	u		0.50	0.19	ug/L
TB-5-102218	1833239-01	Ethylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-5-102218	1833239-01	1,3-Dichloropropane	10/27/2018	0.5	Y	n	u		0.50	0.13	ug/L
TB-5-102218	1833239-01	trans-1,3-Dichloropropene	10/27/2018	0.5	Y	n	u		0.50	0.13	ug/L
TB-5-102218	1833239-01	cis-1,3-Dichloropropene	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-5-102218	1833239-01	Methyl t-butyl ether	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-5-102218	1833239-01	2,2-Dichloropropane	10/27/2018	0.5	Y	n	u		0.50	0.18	ug/L
TB-5-102218	1833239-01	Hexachlorobutadiene	10/27/2018	0.5	Y	n	u		0.50	0.20	ug/L
TB-5-102218	1833239-01	Naphthalene	10/27/2018	0.5	Y	n	u		0.50	0.16	ug/L
TB-5-102218	1833239-01	n-Propylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.12	ug/L
TB-5-102218	1833239-01	Styrene	10/27/2018	0.5	Y	n	u		0.50	0.12	ug/L

SDG: 1833239

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
TB-5-102218	1833239-01	1,1,1,2-Tetrachloroethane	10/27/2018	0.5	Y	n	u		0.50	0.21	ug/L
TB-5-102218	1833239-01	Tetrachloroethene	10/27/2018	0.5	Y	n	u		0.50	0.23	ug/L
TB-5-102218	1833239-01	Toluene	10/27/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-5-102218	1833239-01	1,2,3-Trichlorobenzene	10/27/2018	0.5	Y	n	u		0.50	0.19	ug/L
TB-5-102218	1833239-01	1,2,4-Trichlorobenzene	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-5-102218	1833239-01	1,1,1-Trichloroethane	10/27/2018	0.5	Y	n	u		0.50	0.21	ug/L
TB-5-102218	1833239-01	1,2-Dichloropropane	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-5-102218	1833239-01	Chloromethane	10/27/2018	0.5	Y	n	u		0.50	0.11	ug/L
TB-5-102218	1833239-01	1,1,2,2-Tetrachloroethane	10/27/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-5-102218	1833239-01	Dibromomethane	10/27/2018	0.5	Y	n	u		0.50	0.23	ug/L
TB-5-102218	1833239-01	1,2-Dibromo-3-chloropropane	10/27/2018	1	Y	n	u		1.0	0.89	ug/L
TB-5-102218	1833239-01	n-Butylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-5-102218	1833239-01	Dibromochloromethane	10/27/2018	0.5	Y	n	u		0.50	0.22	ug/L
TB-5-102218	1833239-01	4-Chlorotoluene	10/27/2018	0.5	Y	n	u		0.50	0.093	ug/L
TB-5-102218	1833239-01	sec-Butylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.13	ug/L
TB-5-102218	1833239-01	2-Chlorotoluene	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-5-102218	1833239-01	Chloroform	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-5-102218	1833239-01	1,1,2-Trichloroethane	10/27/2018	0.5	Y	n	u		0.50	0.21	ug/L
TB-5-102218	1833239-01	Chlorobenzene	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-5-102218	1833239-01	Chloroethane	10/27/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-5-102218	1833239-01	1,2-Dibromoethane	10/27/2018	0.5	Y	n	u		0.50	0.22	ug/L
TB-5-102218	1833239-01	trans-1,2-Dichloroethene	10/27/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-5-102218	1833239-01	1,2-Dichlorobenzene	10/27/2018	0.5	Y	n	u		0.50	0.21	ug/L
TB-5-102218	1833239-01	1,3-Dichlorobenzene	10/27/2018	0.5	Y	n	u		0.50	0.16	ug/L
TB-5-102218	1833239-01	1,4-Dichlorobenzene	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L



SDG: 1833239

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
TB-5-102218	1833239-01	Dichlorodifluoromethane	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-5-102218	1833239-01	1,1-Dichloroethane	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-5-102218	1833239-01	1,2-Dichloroethane	10/27/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-5-102218	1833239-01	1,1-Dichloroethene	10/27/2018	0.5	Y	n	u		0.50	0.27	ug/L
TB-5-102218	1833239-01	cis-1,2-Dichloroethene	10/27/2018	0.5	Y	n	u		0.50	0.27	ug/L
TB-5-102218	1833239-01	tert-Butylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.18	ug/L
TB-5-102218	1833239-01	Carbon tetrachloride	10/27/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-5-102218	1833239-01	Methyl acrylate	10/27/2018	0	Y	y	v				ug/L
TB-5-102218	1833239-01	Trichloroethene	10/27/2018	0.5	Y	n	u		0.50	0.19	ug/L
TB-5-102218	1833239-01	Methyl methacrylate	10/27/2018	5	Y	n	u		5.0	1.2	ug/L
TB-5-102218	1833239-01	Methyl iodide	10/27/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
TB-5-102218	1833239-01	Tetrahydrofuran	10/27/2018	20	Y	n	u		20	5.2	ug/L
TB-5-102218	1833239-01	p- & m-Xylenes	10/27/2018	0.5	Y	n	u		0.50	0.34	ug/L
TB-5-102218	1833239-01	o-Xylene	10/27/2018	0.5	Y	n	u		0.50	0.13	ug/L
TB-5-102218	1833239-01	Chloroacetonitrile	10/27/2018	0	Y	y	v				ug/L
TB-5-102218	1833239-01	Bromoform	10/27/2018	0.5	Y	n	u		0.50	0.46	ug/L
TB-5-102218	1833239-01	1,1-Dichloropropanone	10/27/2018	0	Y	y	v				ug/L
TB-5-102218	1833239-01	Methyl isobutyl ketone	10/27/2018	10	Y	n	u		10	2.4	ug/L
TB-5-102218	1833239-01	Nitrobenzene	10/27/2018	0	Y	y	v				ug/L
TB-5-102218	1833239-01	2-Nitropropane	10/27/2018	0	Y	y	v				ug/L
TB-5-102218	1833239-01	Bromodichloromethane	10/27/2018	0.5	Y	n	u		0.50	0.20	ug/L
TB-5-102218	1833239-01	Bromomethane	10/27/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
TB-5-102218	1833239-01	Bromochloromethane	10/27/2018	0.5	Y	n	u		0.50	0.27	ug/L
TB-5-102218	1833239-01	Pentachloroethane	10/27/2018	2	Y	n	u		2.0	0.63	ug/L
TB-5-102218	1833239-01	Benzene	10/27/2018	0.5	Y	n	u		0.50	0.11	ug/L

SDG: 1833239

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
TB-5-102218	1833239-01	Bromobenzene	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-5-102218	1833239-01	1-Chlorobutane	10/27/2018	0	Y	y	v				ug/L
TB-5-102218	1833239-01	Acrylonitrile	10/27/2018	5	Y	n	u		5.0	1.5	ug/L
TB-5-102218	1833239-01	Trichlorofluoromethane	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-5-102218	1833239-01	1,2,3-Trichloropropane	10/27/2018	1	Y	n	u		1.0	0.78	ug/L
TB-5-102218	1833239-01	1,1,2-Trichloro-1,2,2-trifluoroethane	10/27/2018	0.5	Y	n	u		0.50	0.19	ug/L
TB-5-102218	1833239-01	1,2,4-Trimethylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-5-102218	1833239-01	1,3,5-Trimethylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-5-102218	1833239-01	Vinyl chloride	10/27/2018	0.5	Y	n	u		0.50	0.18	ug/L
TB-5-102218	1833239-01	Propionitrile	10/27/2018	20	Y	n	u		20	6.2	ug/L
TB-5-102218	1833239-01	Acetone	10/27/2018	10	Y	n	u		10	6.6	ug/L
TB-5-102218	1833239-01	Methyl ethyl ketone	10/27/2018	10	Y	n	u		10	3.3	ug/L
TB-5-102218	1833239-01	Allyl chloride	10/27/2018	5	Y	n	u		5.0	0.47	ug/L
TB-5-102218	1833239-01	Ethyl methacrylate	10/27/2018	4	Y	n	u		4.0	1.3	ug/L
TB-5-102218	1833239-01	Methacrylonitrile	10/27/2018	10	Y	n	u		10	2.3	ug/L
TB-5-102218	1833239-01	2-Hexanone	10/27/2018	10	Y	n	u		10	5.0	ug/L
TB-5-102218	1833239-01	Ethyl t-butyl ether	10/27/2018	0.5	Y	n	u		0.50	0.32	ug/L
TB-5-102218	1833239-01	t-Amyl Methyl ether	10/27/2018	0.5	Y	n	u		0.50	0.19	ug/L
TB-5-102218	1833239-01	Diethyl ether	10/27/2018	2	Y	n	u		2.0	0.33	ug/L
TB-5-102218	1833239-01	trans-1,4-Dichloro-2-butene	10/27/2018	5	Y	n	u		5.0	1.8	ug/L
TB-5-102218	1833239-01	Carbon disulfide	10/27/2018	1	Y	n	u		1.0	0.48	ug/L
TB-5-102218	1833239-01	t-Butyl alcohol	10/27/2018	10	Y	n	u		10	9.4	ug/L
TB-5-102218	1833239-01	Hexachloroethane	10/27/2018	0.5	Y	n	u		0.50	0.11	ug/L

SDG: 1833239

Analytical Method EPA-7196

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
DUP-4-4Q18	1833239-10	Hexavalent Chromium	10/22/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
EB-5-102218	1833239-11	Hexavalent Chromium	10/22/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
MW-18-2	1833239-05	Hexavalent Chromium	10/22/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
MW-18-3	1833239-04	Hexavalent Chromium	10/22/2018	0.0018	Y	y	v j		0.0020	0.0007	mg/L
MW-18-4	1833239-03	Hexavalent Chromium	10/22/2018	0.0023	Y	y	v		0.0020	0.0007	mg/L
MW-18-5	1833239-02	Hexavalent Chromium	10/22/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
MW-21-2	1833239-09	Hexavalent Chromium	10/22/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
MW-21-3	1833239-08	Hexavalent Chromium	10/22/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
MW-21-4	1833239-07	Hexavalent Chromium	10/22/2018	0.0016	Y	y	v j		0.0020	0.0007	mg/L
MW-21-5	1833239-06	Hexavalent Chromium	10/22/2018	0.0014	Y	y	v j		0.0020	0.0007	mg/L
SB-2-102218	1833239-12	Hexavalent Chromium	10/22/2018	0.002	Y	n	u		0.0020	0.0007	mg/L

LDC #: 43151

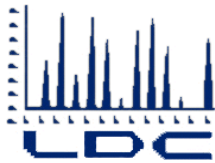
**EDD POPULATION COMPLETENESS WORKSHEET**

Date: 12/13/18  
 Page: 1 of 1  
 2<sup>nd</sup> Reviewer: JTE

The LDC job number listed above was entered by [Signature]  
 Entered from Body or Summary

	EDD Process		Comments/Action
I.	EDD Completeness	-	
Ia.	- All methods present?	y	
Ib.	- All samples present/match report?	y	
Ic.	- All reported analytes present?	y	
Id.	- 10% or 100% verification of EDD?	y	
II.	EDD Preparation/Entry	-	
IIa.	- Carryover U/I?	N	
IIb.	- Reason Codes used? If so, note which codes.	y	Full Reason
IIc.	- Additional Information (QC Level, Validator, Validated Y/N, etc.)	N	
III.	Reasonableness Checks	-	
IIIa.	- Do all qualified ND results have ND qualifier (e.g. UJ)?	y	
IIIb.	- Do all qualified detect results have detect qualifier (e.g. J)?	y	
IIIc.	- If reason codes are used, do all qualified results have reason code field populated, and vice versa?	y	
IIId.	- Does the detect flag require changing for blank qualifier? If so, are all U results marked ND?	N/NA	
IIIe.	- Do blank concentrations in report match EDD where data was qualified due to blank contamination?	y	
IIIf.	- Were multiple results reported due to dilutions/reanalysis? If so, were results qualified appropriately?	N/NA	
IIIg.	- Are there any discrepancies between the data packet and the EDD?	N	

Notes: \*see discrepancy sheet



## LABORATORY DATA CONSULTANTS, INC.

2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

Tidewater, Inc.  
3761 Attucks Drive  
Powell, OH 43065  
ATTN: Mr. David Conner

December 20, 2018

SUBJECT: NASA JPL, 4Q2018, Data Validation

Dear Mr. Conner,

Enclosed are the final validation reports for the fractions listed below. These SDGs were received on November 28, 2018. Attachment 1 is a summary of the samples that were reviewed for each analysis.

### LDC Project #43795:

<u>SDG #</u>	<u>Fraction</u>
1833402, 1833531 1833674	Volatiles, Chromium, Wet Chemistry

The data validation was performed under Level III & IV guidelines. The analyses were validated using the following documents, as applicable to each method:

- USEPA National Functional Guidelines for Organic Superfund Methods Data Review; January 2017
- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review; January 2017
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007, update V, July 2014

Please feel free to contact us if you have any questions.

Sincerely,

Pei Geng  
Project Manager/Senior Chemist



## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** NASA JPL, 4Q2018  
**LDC Report Date:** December 18, 2018  
**Parameters:** Volatiles  
**Validation Level:** Level III & IV  
**Laboratory:** BC Laboratories, Inc.  
**Sample Delivery Group (SDG):** 1833402

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
TB-6-102318	1833402-01	Water	10/23/18
MW-23-5**	1833402-02**	Water	10/23/18
MW-23-4	1833402-03	Water	10/23/18
MW-23-3	1833402-04	Water	10/23/18
DUP-5-4Q18	1833402-05	Water	10/23/18
MW-23-2	1833402-06	Water	10/23/18
MW-23-1	1833402-07	Water	10/23/18
MW-4-5	1833402-08	Water	10/23/18
MW-4-4	1833402-09	Water	10/23/18
MW-4-3**	1833402-10**	Water	10/23/18
MW-4-2	1833402-11	Water	10/23/18
MW-4-1	1833402-12	Water	10/23/18
EB-6-102318	1833402-13	Water	10/23/18

\*\*Indicates sample underwent Level IV review

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) Method 524.2

All sample results were subjected to Level III data validation, which comprises an evaluation of quality control (QC) summary results. Samples appended with a double asterisk on the cover page were subjected to Level IV evaluation, which is comprised of the QC summary forms as well as the raw data, to confirm sample quantitation and identification.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated due to non-conformances discovered during data validation.
- U (Non-detected): The compound or analyte was analyzed for and positively identified by the laboratory; however the compound or analyte should be considered non-detected at the reported concentration due to the presence of contaminants detected in the associated blank(s).
- UJ (Non-detected estimated): The compound or analyte was reported as not detected by the laboratory; however the reported quantitation/detection limit is estimated due to non-conformances discovered during data validation.
- R (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.



## I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

## III. Initial Calibration and Initial Calibration Verification

An initial calibration was performed as required by the method.

For compounds where average relative response factors (RRFs) were utilized, the percent relative standard deviations (%RSD) were less than or equal to 20.0%

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination ( $r^2$ ) were greater than or equal to 0.990.

Average relative response factors (RRF) for all compounds were within validation criteria.

The percent differences (%D) of the initial calibration verification (ICV) standard were less than or equal to 30.0% for all compounds.

## IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

The percent differences (%D) were less than or equal to 30.0% for all compounds with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
10/28/18 (27OCT32)	Bromomethane	33.4	TB-6-102318 MW-23-5** MW-23-4 MW-23-3 DUP-5-4Q18 MW-23-2 MW-23-1 MW-4-5 MW-4-4	UJ (all non-detects)	P

Date	Compound	%D	Associated Samples	Flag	A or P
10/28/18 (27OCT33)	Methyl iodide Pentachloroethane	66.4 80.6	TB-6-102318 MW-23-5** MW-23-4 MW-23-3 DUP-5-4Q18 MW-23-2 MW-23-1 MW-4-5 MW-4-4	UJ (all non-detects) UJ (all non-detects)	P
10/28/18 (27OCT62)	Bromomethane	64.9	MW-4-3** MW-4-2 MW-4-1 EB-6-102318	UJ (all non-detects)	P
10/28/18 (27OCT63)	trans-1,4-Dichloro-2-butene Methyl iodide Pentachloroethane	34.5 62.1 98.5	MW-4-3** MW-4-2 MW-4-1 EB-6-102318	UJ (all non-detects) UJ (all non-detects) UJ (all non-detects)	P

## V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## VI. Field Blanks

Sample TB-6-102318 was identified as a trip blank. No contaminants were found.

Sample EB-6-102318 was identified as an equipment blank. No contaminants were found.

## VII. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## VIII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## IX. Laboratory Control Samples

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **X. Field Duplicates**

Samples MW-23-3 and DUP-5-4Q18 were identified as field duplicates. No results were detected in any of the samples.

## **XI. Internal Standards**

All internal standard areas and retention times were within QC limits.

## **XII. Compound Quantitation**

All compound quantitations met validation criteria for samples which underwent Level IV validation. Raw data were not reviewed for Level III validation.

## **XIII. Target Compound Identifications**

All target compound identifications met validation criteria for samples which underwent Level IV validation. Raw data were not reviewed for Level III validation.

## **XIV. System Performance**

The system performance was acceptable for samples which underwent Level IV validation. Raw data were not reviewed for Level III validation.

## **XV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to continuing calibration %D, data were qualified as estimated in thirteen samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the data validation all other results are considered valid and usable for all purposes.

**NASA JPL, 4Q2018**  
**Volatiles - Data Qualification Summary - SDG 1833402**

Sample	Compound	Flag	A or P	Reason
TB-6-102318 MW-23-5** MW-23-4 MW-23-3 DUP-5-4Q18 MW-23-2 MW-23-1 MW-4-5 MW-4-4	Bromomethane Methyl iodide Pentachloroethane	UJ (all non-detects) UJ (all non-detects) UJ (all non-detects)	P	Continuing calibration (%D)
MW-4-3** MW-4-2 MW-4-1 EB-6-102318	Bromomethane trans-1,4-Dichloro-2-butene Methyl iodide Pentachloroethane	UJ (all non-detects) UJ (all non-detects) UJ (all non-detects) UJ (all non-detects)	P	Continuing calibration (%D)

**NASA JPL, 4Q2018**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 1833402**

No Sample Data Qualified in this SDG

LDC #: 43795A1  
 SDG #: 1833402  
 Laboratory: BC Laboratories, Inc.

**VALIDATION COMPLETENESS WORKSHEET**  
 Level III/IV

Date: 11/18  
 Page: 1 of 1  
 Reviewer: [Signature]  
 2nd Reviewer: \_\_\_\_\_

**METHOD:** GC/MS Volatiles (EPA Method 524.2)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A	
II.	GC/MS Instrument performance check	A	
III.	Initial calibration/ICV	A/A	RSD ≤ 20% . 8 <sup>2</sup> CV ≤ 30%
IV.	Continuing calibration	MW	CV ≤ 30%
V.	Laboratory Blanks	A	
VI.	Field blanks	ND	TB = 1 . EB = 13
VII.	Surrogate spikes	A	
VIII.	Matrix spike/Matrix spike duplicates	N	CS
IX.	Laboratory control samples	A	LCS
X.	Field duplicates	ND	D = 4 + 5
XI.	Internal standards	A	
XII.	Compound quantitation RL/LOQ/LODs	A	Not reviewed for Level III validation
XIII.	Target compound identification	A	Not reviewed for Level III validation
XIV.	System performance	A	Not reviewed for Level III validation
XV.	Overall assessment of data	A	

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB = Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

\*\* Indicates sample underwent Level IV validation

	Client ID	Lab ID	Matrix	Date
1	TB-6-102318	1833402-01	Water	10/23/18
2	MW-23-5**	1833402-02**	Water	10/23/18
3	MW-23-4	1833402-03	Water	10/23/18
4	MW-23-3	1833402-04	Water	10/23/18
5	DUP-5-4Q18	1833402-05	Water	10/23/18
6	MW-23-2	1833402-06	Water	10/23/18
7	MW-23-1	1833402-07	Water	10/23/18
8	MW-4-5	1833402-08	Water	10/23/18
9	MW-4-4	1833402-09	Water	10/23/18
10	MW-4-3**	1833402-10**	Water	10/23/18
11	MW-4-2	1833402-11	Water	10/23/18
12	MW-4-1	1833402-12	Water	10/23/18
13	EB-6-102318	1833402-13	Water	10/23/18

VALIDATION FINDINGS CHECKLIST

Method: Volatiles (EPA Method 524.2)

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
Were all technical holding times met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was cooler temperature criteria met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. GC/MS Instrument performance check</b>				
Was a tune check performed prior to establishing and/or re-establishing an initial calibration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the BFB performance results reviewed and found to be within the specified criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>III. Initial calibration</b>				
Did the laboratory perform at least 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) < 20%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IIIa. Initial Calibration Verification calibration</b>				
Was an initial calibration verification standard analyzed after each initial calibration for each instrument?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) < 30%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Continuing calibration</b>				
Was a continuing calibration standard analyzed at the beginning of each analysis batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) of continuing calibration < 30%?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>V. Laboratory Blanks</b>				
Was a laboratory blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a laboratory blank analyzed with each analysis batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the laboratory blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VI. Field blanks</b>				
Field blanks were identified in this SDG.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field blanks.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VII. Surrogate spikes</b>				
Were all surrogate %R within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VIII. Matrix spike/Matrix spike duplicates</b>				
Was a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for this SDG?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>IX. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

VALIDATION FINDINGS CHECKLIST

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per analytical batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) within 70-130%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>X. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field duplicates.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>XI. Internal standards</b>				
Were internal standard area counts within +/-30% of the area of the most recent continuing calibration standard and +/-50% of the average peak area in the initial calibration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were retention times within +/-30 seconds of the associated calibration standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XII. Compound quantitation/CRQLs</b>				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) or regression equations used to quantitate the compound?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIII. Target compound identification</b>				
Were relative retention times (RRT's) within + 0.06 RRT units of the standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were chromatogram peaks verified and accounted for?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIV. System performance</b>				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XV. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

## TARGET COMPOUND WORKSHEET

### METHOD: VOA

A. Chloromethane	AA. Tetrachloroethene	AAA. 1,3,5-Trimethylbenzene	AAAA. Ethyl tert-butyl ether	A1. 1,3-Butadiene
B. Bromomethane	BB. 1,1,2,2-Tetrachloroethane	BBB. 4-Chlorotoluene	BBBB. tert-Amyl methyl ether	B1. Hexane
C. Vinyl chloride	CC. Toluene	CCC. tert-Butylbenzene	CCCC. 1-Chlorohexane	C1. Heptane
D. Chloroethane	DD. Chlorobenzene	DDD. 1,2,4-Trimethylbenzene	DDDD. Isopropyl alcohol	D1. Propylene
E. Methylene chloride	EE. Ethylbenzene	EEE. sec-Butylbenzene	EEEE. Acetonitrile	E1. Freon 11
F. Acetone	FF. Styrene	FFF. 1,3-Dichlorobenzene	FFFF. Acrolein	F1. Freon 12
G. Carbon disulfide	GG. Xylenes, total	GGG. p-Isopropyltoluene	GGGG. Acrylonitrile	G1. Freon 113
H. 1,1-Dichloroethene	HH. Vinyl acetate	HHH. 1,4-Dichlorobenzene	HHHH. 1,4-Dioxane	H1. Freon 114
I. 1,1-Dichloroethane	II. 2-Chloroethylvinyl ether	III. n-Butylbenzene	IIII. Isobutyl alcohol	I1. 2-Nitropropane
J. 1,2-Dichloroethene, total	JJ. Dichlorodifluoromethane	JJJ. 1,2-Dichlorobenzene	JJJJ. Methacrylonitrile	J1. Dimethyl disulfide
K. Chloroform	KK. Trichlorofluoromethane	KKK. 1,2,4-Trichlorobenzene	KKKK. Propionitrile	K1. 2,3-Dimethyl pentane
L. 1,2-Dichloroethane	LL. Methyl-tert-butyl ether	LLL. Hexachlorobutadiene	LLLL. Ethyl ether	L1. 2,4-Dimethyl pentane
M. 2-Butanone	MM. 1,2-Dibromo-3-chloropropane	MMM. Naphthalene	MMMM. Benzyl chloride	M1. 3,3-Dimethyl pentane
N. 1,1,1-Trichloroethane	NN. Methyl ethyl ketone	NNN. 1,2,3-Trichlorobenzene	NNNN. Iodomethane	N1. 2-Methylpentane
O. Carbon tetrachloride	OO. 2,2-Dichloropropane	OOO. 1,3,5-Trichlorobenzene	OOOO. 1,1-Difluoroethane	O1. 3-Methylpentane
P. Bromodichloromethane	PP. Bromochloromethane	PPP. trans-1,2-Dichloroethene	PPPP. Tetrahydrofuran	P1. 3-Ethylpentane
Q. 1,2-Dichloropropane	QQ. 1,1-Dichloropropene	QQQ. cis-1,2-Dichloroethene	QQQQ. Methyl acetate	Q1. 2,2-Dimethylpentane
R. cis-1,3-Dichloropropene	RR. Dibromomethane	RRR. m,p-Xylenes	RRRR. Ethyl acetate	R1. 2,2,3-Trimethylbutane
S. Trichloroethene	SS. 1,3-Dichloropropane	SSS. o-Xylene	SSSS. Cyclohexane	S1. 2,2,4-Trimethylpentane
T. Dibromochloromethane	TT. 1,2-Dibromoethane	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	TTTT. Methylcyclohexane	T1. 2-Methylhexane
U. 1,1,2-Trichloroethane	UU. 1,1,1,2-Tetrachloroethane	UUU. 1,2-Dichlorotetrafluoroethane	UUUU. Allyl chloride	U1. Nonanal
V. Benzene	VV. Isopropylbenzene	VVV. 4-Ethyltoluene	VVVV. Methyl methacrylate	V1. 2-Methylnaphthalene
W. trans-1,3-Dichloropropene	WW. Bromobenzene	WWW. Ethanol	WWWW. Ethyl methacrylate	W1. Methanol
X. Bromoform	XX. 1,2,3-Trichloropropane	XXX. Di-isopropyl ether	XXXX. cis-1,4-Dichloro-2-butene	X1. 1,2,3-Trimethylbenzene
Y. 4-Methyl-2-pentanone	YY. n-Propylbenzene	YYY. tert-Butanol	YYYY. trans-1,4-Dichloro-2-butene	Y1. Methyl iodide
Z. 2-Hexanone	ZZ. 2-Chlorotoluene	ZZZ. tert-Butyl alcohol	ZZZZ. Pentachloroethane	Z1.



### VALIDATION FINDINGS WORKSHEET Continuing Calibration

**METHOD:** GC/MS VOA (EPA Method 524.2)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?

Y N N/A Were all percent differences (%D) ≤ 30% ?

#	Date	Standard ID	Compound	Finding %D (Limit: <30.0%)	Associated Samples	Qualifications
	10/27/18	STOCT02 ↓ 3	B Y1	39.6 52.9	MB	Y/N/A ↓
	10/28/18	STOCT32 ↓ 33	<del>33#</del> B Y1 2222	33.4 66.4 80.6	1-9. MB (NO)	Y/N/A ↓
	10/28/18	STOCT62 ↓ 63	B Y1 Y1 2222	64.9 34.5 62.1 98.5	10-13. (NO)	Y/N/A ↓

### VALIDATION FINDINGS WORKSHEET Initial Calibration Calculation Verification

**METHOD:** GC/MS VOA (EPA SW 846 Method 8260B)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

RRF =  $(A_x)(C_{is}) / (A_{is})(C_x)$   
 average RRF = sum of the RRFs/number of standards  
 %RSD =  $100 * (S/X)$

A<sub>x</sub> = Area of compound,  
 C<sub>x</sub> = Concentration of compound,  
 S = Standard deviation of the RRFs  
 X = Mean of the RRFs

A<sub>is</sub> = Area of associated internal standard  
 C<sub>is</sub> = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported	Recalculated	Reported	Recalculated	Reported	Recalculated
				RRF (10 std)	RRF (10 std)	Average RRF (initial)	Average RRF (initial)	%RSD	%RSD
1	ICAL (MS-V5)	10/24/18	QQQ (1st internal standard)	0.5602554	0.5602554	0.5369482	0.5369482	5.466507	5.4665
			S (2nd internal standard)	0.3618204	0.3618204	0.3481508	0.3481508	7.054761	7.0547
			EE (3rd internal standard)	1.860682	1.8606817	1.826999	1.826999	12.71603	12.7160
			(4th internal standard)						
2			QQQ (1st internal standard)						
			S (2nd internal standard)						
			AA (3rd internal standard)						
			HHH (4th internal standard)						
3			QQQ (1st internal standard)						
			S (2nd internal standard)						
			AA (3rd internal standard)						
			HHH (4th internal standard)						
4			QQQ (1st internal standard)						
			S (2nd internal standard)						
			AA (3rd internal standard)						
			HHH (4th internal standard)						

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

## VALIDATION FINDINGS WORKSHEET

### Continuing Calibration Results Verification

**METHOD:** GC/MS VOA (EPA Method 524.2)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

$$\% \text{ Difference} = 100 * (\text{ave. RRF} - \text{RRF}) / \text{ave. RRF}$$

$$\text{RRF} = (A_x)(C_s) / (A_s)(C_x)$$

Where: ave. RRF = initial calibration average RRF

RRF = continuing calibration RRF

A<sub>x</sub> = Area of compound,

A<sub>s</sub> = Area of associated internal standard

C<sub>x</sub> = Concentration of compound,

C<sub>s</sub> = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference internal Standard)	Average RRF (initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	27OCT02	10/27/18	QQQ (1st internal standard)	0.5369482	0.5932511	0.5932511	10.5	10.5
			S (2nd internal standard)	0.3481508	0.3355735	0.3355734	3.6	3.6
			EE (3rd internal standard)	1.826999	1.809214	1.809214	1.0	1.0
			HHH (4th internal standard)					
2	27OCT32	10/28/18	QQQ (1st internal standard)	0.5369482	0.5777778	0.5777778	7.6	7.6
			S (2nd internal standard)	0.3481508	0.3429448	0.3429448	1.5	1.5
			EE (3rd internal standard)	1.826999	1.77152	1.77152	3.0	3.0
			HHH (4th internal standard)					
3	27OCT62	10/28/18	QQQ (1st internal standard)	0.5369482	0.5690076	0.5690076	6.0	6.0
			S (2nd internal standard)	0.3481508	0.3690017	0.3690017	6.0	6.0
			EE (3rd internal standard)	1.826999	1.753664	1.753664	4.0	4.0
			HHH (4th internal standard)					
4			QQQ (1st internal standard)					
			S (2nd internal standard)					
			AA (3rd internal standard)					
			HHH (4th internal standard)					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 13795A

## VALIDATION FINDINGS WORKSHEET Surrogate Results Verification

Page: 1 of 1  
 Reviewer: [Signature]  
 2nd reviewer: [Signature]

**METHOD:** GC/MS VOA (EPA Method 524.2)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS \* 100

Where: SF = Surrogate Found  
 SS = Surrogate Spiked

Sample ID: 2

	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
			Reported	Recalculated	
Toluene-d8	10.00	9.84	98.4	98.4	0
Bromofluorobenzene	✓	10.24	102	102	✓
1,2-Dichlorobenzene-d4 <u>1,2-DCE</u>	✓	10.66	107	107	✓
Dibromofluoromethane					

Sample ID: \_\_\_\_\_

	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
			Reported	Recalculated	
Toluene-d8					
Bromofluorobenzene					
1,2-Dichlorobenzene-d4					
Dibromofluoromethane					

Sample ID: \_\_\_\_\_

	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
			Reported	Recalculated	
Toluene-d8					
Bromofluorobenzene					
1,2-Dichlorobenzene-d4					
Dibromofluoromethane					

Sample ID: \_\_\_\_\_

	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
			Reported	Recalculated	
Toluene-d8					
Bromofluorobenzene					
1,2-Dichlorobenzene-d4					
Dibromofluoromethane					

LDC #: 1379A

## VALIDATION FINDINGS WORKSHEET Laboratory Control Sample Results Verification

Page: 1 of 1  
Reviewer: [Signature]  
2nd Reviewer: [Signature]

**METHOD:** GC/MS VOA (EPA Method 524.2)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate (if applicable) were recalculated for the compounds identified below using the following calculation:

% Recovery =  $100 * SSC/SA$

Where: SSC = Spiked sample concentration  
SA = Spike added

RPD =  $| LCSC - LCSDC | * 2 / (LCSC + LCSDC)$

LCSC = Laboratory control sample concentration    LCSDC = Laboratory control sample duplicate concentration

LCS ID: ED28563-PS1

Compound	Spike Added ( <u>100%</u> )		Spiked Sample Concentration ( <u>100%</u> )		LCS		LCSD		LCS/LCSD	
	LCS	LCSD	LCS	LCSD	Percent Recovery		Percent Recovery		RPD	
					Reported	Recalc.	Reported	Recalc.	Reported	Recalculated
1,1-Dichloroethene	<u>25.000</u>	<u>NA</u>	<u>26.980</u>	<u>NA</u>	<u>108</u>	<u>108</u>				
Trichloroethene	<u>↓</u>	<u>↓</u>	<u>26.060</u>	<u>↓</u>	<u>104</u>	<u>104</u>				
Benzene	<u>↓</u>	<u>↓</u>	<u>25.580</u>	<u>↓</u>	<u>102</u>	<u>102</u>				
Toluene	<u>↓</u>	<u>↓</u>	<u>24.400</u>	<u>↓</u>	<u>97.6</u>	<u>97.6</u>				
Chlorobenzene	<u>↓</u>	<u>↓</u>	<u>24.440</u>	<u>↓</u>	<u>97.8</u>	<u>97.8</u>				

Comments: Refer to Laboratory Control Sample findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 13795A

### VALIDATION FINDINGS WORKSHEET Sample Calculation Verification

Page: 1 of 1  
Reviewer: [Signature]  
2nd reviewer: JLC

**METHOD:** GC/MS VOA (EPA Method 524.2)

Y N N/A Were all reported results recalculated and verified for all level IV samples?

Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

$$\text{Concentration} = \frac{(A_x)(I_s)(DF)}{(A_{is})(RRF)(V_s)(\%S)}$$

- $A_x$  = Area of the characteristic ion (EICP) for the compound to be measured
- $A_{is}$  = Area of the characteristic ion (EICP) for the specific internal standard
- $I_s$  = Amount of internal standard added in nanograms (ng)
- RRF = Relative response factor of the calibration standard.
- $V_s$  = Volume or weight of sample pruged in milliliters (ml) or grams (g).
- Df = Dilution factor.
- %S = Percent solids, applicable to soils and solid matrices only.

Example:

Sample I.D. 10, 5:

$$\text{Conc.} = \frac{(6160)(10^0)(1)}{(33155)(0.3481508)( )} = 0.53 \text{ } \mu\text{L}$$

#	Sample ID	Compound	Reported Concentration ( <u>μg/L</u> )	Calculated Concentration ( )	Qualification
	<u>10</u>	<u>5</u>	<u>0.53</u>		

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** NASA JPL, 4Q2018

**LDC Report Date:** December 18, 2018

**Parameters:** Chromium

**Validation Level:** Level III & IV

**Laboratory:** BC Laboratories, Inc.

**Sample Delivery Group (SDG):** 1833402

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-23-5**	1833402-02**	Water	10/23/18
MW-23-4	1833402-03	Water	10/23/18
MW-23-3	1833402-04	Water	10/23/18
DUP-5-4Q18	1833402-05	Water	10/23/18
MW-23-2	1833402-06	Water	10/23/18
MW-23-1	1833402-07	Water	10/23/18
MW-4-5	1833402-08	Water	10/23/18
MW-4-4	1833402-09	Water	10/23/18
MW-4-3**	1833402-10**	Water	10/23/18
MW-4-2	1833402-11	Water	10/23/18
MW-4-1	1833402-12	Water	10/23/18
EB-6-102318	1833402-13	Water	10/23/18
MW-23-5MS	1833402-02MS	Water	10/23/18
MW-23-5MSD	1833402-02MSD	Water	10/23/18
MW-23-5DUP	1833402-02DUP	Water	10/23/18

\*\*Indicates sample underwent Level IV validation

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with a modified outline of the USEPA National Functional Guidelines (NFG) for Inorganic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Chromium by Environmental Protection Agency (EPA) Method 200.8

All sample results were subjected to Level III data validation, which comprises an evaluation of quality control (QC) summary results. Samples appended with a double asterisk on the cover page were subjected to Level IV data validation, which is comprised of the QC summary forms as well as the raw data, to confirm sample quantitation and identification.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated due to non-conformances discovered during data validation.
- U (Non-detected): The compound or analyte was analyzed for and positively identified by the laboratory; however the compound or analyte should be considered non-detected at the reported concentration due to the presence of contaminants detected in the associated blank(s).
- UJ (Non-detected estimated): The compound or analyte was reported as not detected by the laboratory; however the reported quantitation/detection limit is estimated due to non-conformances discovered during data validation.
- R (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.



## I. Sample Receipt and Technical Holding Times

All samples were received in good condition.

All technical holding time requirements were met.

## II. ICPMS Tune

The mass calibration was within 0.1 AMU and the percent relative standard deviation (%RSD) was less than or equal to 5%.

## III. Instrument Calibration

Initial and continuing calibrations were performed as required by the method.

The initial calibration verification (ICV) and continuing calibration verification (CCV) standards were within QC limits.

## IV. ICP Interference Check Sample Analysis

ICP interference check sample analysis data were not required by the method.

## V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks with the following exceptions:

Blank ID	Analyte	Maximum Concentration	Associated Samples
ICB/CCB	Chromium	0.55800 ug/L	MW-23-5** MW-23-4 MW-23-3 DUP-5-4Q18 MW-23-2 MW-23-1 MW-4-5 MW-4-4 MW-4-3** MW-4-2

Data qualification by the laboratory blanks was based on the maximum contaminant concentration in the laboratory blanks in the analysis of each analyte. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated laboratory blanks with the following exceptions:

Sample	Analyte	Reported Concentration	Modified Final Concentration
MW-23-2	Chromium	0.87 ug/L	0.87U ug/L

Sample	Analyte	Reported Concentration	Modified Final Concentration
MW-23-1	Chromium	2.3 ug/L	2.3U ug/L

## VI. Field Blanks

Sample EB-6-102318 was identified as an equipment blank. No contaminants were found with the following exceptions:

Blank ID	Analyte	Concentration (ug/L)
EB-6-102318	Chromium	1.0

## VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## VIII. Duplicate Sample Analysis

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## IX. Serial Dilution

Serial dilution analysis was performed on an associated project sample. Percent differences (%D) were within QC limits.

## X. Laboratory Control Samples

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## XI. Field Duplicates

Samples MW-23-3 and DUP-5-4Q18 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Analyte	Concentration (ug/L)		RPD
	MW-23-3	DUP-5-4Q18	
Chromium	3.0	3.1	3

## **XII. Internal Standards (ICP-MS)**

All internal standard percent recoveries (%R) were within QC limits for samples which underwent Level IV validation. Raw data were not reviewed for Level III validation.

## **XIII. Sample Result Verification**

All sample result verifications were acceptable for samples which underwent Level IV validation. Raw data were not reviewed for Level III validation.

## **XIV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to laboratory blank contamination, data were qualified as not detected in two samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Based upon the data validation all other results are considered valid and usable for all purposes.

**NASA JPL, 4Q2018**  
**Chromium - Data Qualification Summary - SDG 1833402**

No Sample Data Qualified in this SDG

**NASA JPL, 4Q2018**  
**Chromium - Laboratory Blank Data Qualification Summary - SDG 1833402**

Sample	Analyte	Modified Final Concentration	A or P
MW-23-2	Chromium	0.87U ug/L	A
MW-23-1	Chromium	2.3U ug/L	A

LDC #: 43795A4a

**VALIDATION COMPLETENESS WORKSHEET**

Date: 12-13-18

SDG #: 1833402 1833402

Level III/IV

Page: 1 of 2

Laboratory: BC Laboratories, Inc.

gmb

Reviewer: MG2nd Reviewer: Q**METHOD:** Chromium (EPA Method 200.8)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A	
II.	ICP/MS Tune	A	
III.	Instrument Calibration	A	
IV.	ICP Interference Check Sample (ICS) Analysis	N	not required
V.	Laboratory Blanks	SW	
VI.	Field Blanks	SW	EB=12
VII.	Matrix Spike/Matrix Spike Duplicates	A	MS/MSD (SDG: 1833531)
VIII.	Duplicate sample analysis	A	DUP ( ↓ )
IX.	Serial Dilution	A	SD: 1
X.	Laboratory control samples	A	LCS
XI.	Field Duplicates	SW	D=3+4
XII.	Internal Standard (ICP-MS)	A	not reviewed for Level III
XIII.	Sample Result Verification	A	Not reviewed for Level III validation
XIV.	Overall Assessment of Data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

\*\* Indicates sample underwent Level IV validation

	Client ID	Lab ID	Matrix	Date
1	MW-23-5**	1833402-02**	Water	10/23/18
2	MW-23-4	1833402-03	Water	10/23/18
3	MW-23-3	1833402-04	Water	10/23/18
4	DUP-5-4Q18	1833402-05	Water	10/23/18
5	MW-23-2	1833402-06	Water	10/23/18
6	MW-23-1	1833402-07	Water	10/23/18
7	MW-4-5	1833402-08	Water	10/23/18
8	MW-4-4	1833402-09	Water	10/23/18
9	MW-4-3**	1833402-10**	Water	10/23/18
10	MW-4-2	1833402-11	Water	10/23/18
11	MW-4-1	1833402-12	Water	10/23/18
12	EB-6-102318	1833402-13	Water	10/23/18
13	MW-23-5MS	1833402-02MS	Water	10/23/18
14	MW-23-5MSD	1833402-02MSD	Water	10/23/18
15	MW-23-5DUP	1833402-02DUP	Water	10/23/18

LDC #: 43795A4a

# VALIDATION COMPLETENESS WORKSHEET

Date: 12-13-18

SDG #: 1833409

Level III/IV

Page: 2 of 2

Laboratory: BC Laboratories, Inc.

Reviewer: MG

2nd Reviewer: 

**METHOD:** Chromium (EPA Method 200.8)

	Client ID	Lab ID	Matrix	Date
16				
17	PBW 1			
18	PBW 2			

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Method: Metals (EPA SW 846 Method 6010/7000/6020)

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
<b>II. ICP/MS Tune</b>				
Were all isotopes in the tuning solution mass resolution within 0.1 amu?	✓			
Were %RSD of isotopes in the tuning solution $\leq 5\%$ ?	✓			
<b>III. Calibration</b>				
Were all instruments calibrated daily, each set-up time?	✓			
Were the proper number of standards used?	✓			
Were all initial and continuing calibration verification %Rs within the 90-110% (80-120% for mercury) QC limits?	✓			
Were all initial calibration correlation coefficients $> 0.995$ ?	✓			
<b>IV. Blanks</b>				
Was a method blank associated with every sample in this SDG?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	✓			
<b>V. ICP Interference Check Sample</b>				
Were ICP interference check samples performed daily?		✓		<i>not required</i>
Were the AB solution percent recoveries (%R) with the 80-120% QC limits?			✓	
<b>VI. Matrix spike/Matrix spike duplicates</b>				
Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.	✓			
Were the MS/MSD or duplicate relative percent differences (RPD) $< 20\%$ for waters and $\leq 35\%$ for soil samples? A control limit of $\pm RL$ ( $\pm 2X RL$ for soil) was used for samples that were $\leq 5X$ the RL, including when only one of the duplicate sample values were $< 5X$ the RL.	✓			
<b>VII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% QC limits for water samples and laboratory established QC limits for soils?	✓			

Validation Area	Yes	No	NA	Findings/Comments
<b>VIII. Internal Standards (EPA SW 846 Method 6020/EPA 200.8)</b>				
Were all the percent recoveries (%R) within the 30-120% (6020)/60-125% (200.8) of the intensity of the internal standard in the associated initial calibration?	✓			
If the %Rs were outside the criteria, was a reanalysis performed?			✓	
<b>IX. ICP Serial Dilution</b>				
Was an ICP serial dilution analyzed if analyte concentrations were > 50X the MDL (ICP)/>100X the MDL(ICP/MS)?	✓			
Were all percent differences (%Ds) < 10%?	✓			
Was there evidence of negative interference? If yes, professional judgement will be used to qualify the data.		✓		
<b>X. Sample Result Verification</b>				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
<b>XI. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	✓			
<b>XII. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	✓			
Target analytes were detected in the field duplicates.	✓			
<b>XIII. Field blanks</b>				
Field blanks were identified in this SDG.	✓			
Target analytes were detected in the field blanks.	✓			



LDC #: 43795A4a

SDG #: See Cover

METHOD: Trace metals (EPA SW 864 Method 200.8)

Sample Concentration units, unless otherwise noted: ug/L

VALIDATION FINDINGS WORKSHEET

PB/ICB/CCB QUALIFIED SAMPLES

Soil preparation factor applied: NA

Associated Samples: 1-10

Reviewer: MG

2nd Reviewer: [Signature]

Analyte	Maximum PB <sup>a</sup> (mg/Kg)	Maximum PB <sup>a</sup> (ug/L)	Maximum ICB/CCB <sup>a</sup> (ug/L)	Action Limit	5	6								
Cr			0.55800	2.790	0.87	2.3								

Samples with analyte concentrations within five times the associated ICB, CCB or PB concentration are listed above with the identifications from the Validation Completeness Worksheet. These sample results were qualified as not detected, "U".

Note : a - The listed analyte concentration is the highest ICB, CCB, or PB detected in the analysis of each element.

LDC #: 43795A4a

### VALIDATION FINDINGS WORKSHEET Field Blanks

Page: 1 of 1  
Reviewer: MG  
2nd reviewer: X

**METHOD:** Trace Metals (EPA SW 846 Method 6010/6020/7000)

- N N/A Were field blanks identified in this SDG?
- N N/A Were target analytes detected in the field blanks?

Sample: 12 Field Blank / Trip Blank / Rinsate / Other (EB) (circle one)

Analyte	Concentration Units ( )
<u>Cr</u>	<u>1.0 (µg/L)</u>

Sample: \_\_\_\_\_ Field Blank / Trip Blank / Rinsate / Other \_\_\_\_\_ (circle one)

Analyte	Concentration Units ( )

LDC#: 43795A4a

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

Page: 1 of 1  
Reviewer: MG  
2nd Reviewer:           

**METHOD:** Metals (EPA Method 200.8)

Analyte	Concentration (ug/L)		RPD	
	3	4		
Chromium	3.0	3.1	3	

V:\FIELD DUPLICATES\Field Duplicates\FD\_inorganic\2018\43795A4a.WPD

LDC #: 43795A4a

**VALIDATION FINDINGS WORKSHEET**  
**Initial and Continuing Calibration Calculation Verification**

Page: 1 of 1  
 Reviewer: MG  
 2nd Reviewer: [Signature]

**METHOD:** Trace metals (EPA SW 846 Method 6010/6020/7000)

An initial and continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

$$\%R = \frac{\text{Found}}{\text{True}} \times 100$$

Where, Found = concentration (in ug/L) of each analyte measured in the analysis of the ICV or CCV solution  
 True = concentration (in ug/L) of each analyte in the ICV or CCV source

Standard ID	Type of Analysis	Element	Found (ug/L)	True (ug/L)	Recalculated	Reported	Acceptable (Y/N)
					%R	%R	
	ICP (Low Level calibration)						
	ICP/MS (Low Level calibration)						
	ICP (Initial calibration)						
<u>2103</u> <u>ICV</u>	ICP/MS (Initial calibration)	<u>Cr</u>	<u>48.793</u>	<u>50.000</u>	<u>97.6</u>	<u>97.6</u>	<u>Y</u>
	CVAA (Initial calibration)						↓
	ICP (Continuing calibration)						
<u>0243</u> <u>CCVB</u>	ICP/MS (Continuing calibration)	<u>Cr</u>	<u>39.734</u>	<u>40.000</u>	<u>99.3</u>	<u>99.3</u>	↓
	CVAA (Continuing calibration)						

ICP-MS TUNE	Calculation	Mass	Actual (Mean Counts / Axis)	Required (Counts / Axis)	Recalculated %RSD	Acceptable (Y/N)
<u>tune</u>	Mass Axis	<u>114.904</u>	<u>114.875</u>	± 0.1 AMU	NA	<u>Y</u>
↓	%RSD	<u>238.1</u>	<u>0.4</u>	≤ 5% RSD	<u>0.4</u>	↓

Comments:

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LDC #: 43795A4a

**VALIDATION FINDINGS WORKSHEET**  
**Level IV Recalculation Worksheet**

Page: 1 of 1  
Reviewer: MG  
2nd Reviewer: [Signature]

**METHOD:** Trace Metals (EPA SW 846 Method 6010/6020/7000)

Percent recoveries (%R) for an ICP interference check sample, a laboratory control sample and a matrix spike sample were recalculated using the following formula:

$$\%R = \frac{\text{Found}}{\text{True}} \times 100$$
 Where, Found = Concentration of each analyte measured in the analysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result) - SR (sample result).  
 True = Concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

$$RPD = \frac{|S-D|}{(S+D)/2} \times 100$$
 Where, S = Original sample concentration  
 D = Duplicate sample concentration

An ICP serial dilution percent difference (%D) was recalculated using the following formula:

$$\%D = \frac{|I-SDR|}{I} \times 100$$
 Where, I = Initial Sample Result (mg/L)  
 SDR = Serial Dilution Result (mg/L) (Instrument Reading x 5)

Sample ID	Type of Analysis	Element	Found / S / I (units)	True / D / SDR (units)	Recalculated	Reported	Acceptable (Y/N)
					%R / RPD / %D	%R / RPD / %D	
-	ICP interference check	-	-	-	-	-	-
0916 LCS	Laboratory control sample	Cr	40.33 (µg/L)	40.00 (µg/L)	101	101	Y
0933 13	Matrix spike	Cr	(SSR-SR) 41.02 (µg/L)	40.00 (µg/L)	103	103	
0933/0226 15	Duplicate	Cr	0.50 u (µg/L)	1.27 (µg/L)	87	-	
0933/0930 1	ICP serial dilution	Cr	0.50 u (µg/L)	4.74 (µg/L)	100	-	

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.



## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** NASA JPL, 4Q2018

**LDC Report Date:** December 18, 2018

**Parameters:** Wet Chemistry

**Validation Level:** Level III & IV

**Laboratory:** BC Laboratories, Inc.

**Sample Delivery Group (SDG):** 1833402

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-23-5**	1833402-02**	Water	10/23/18
MW-23-4	1833402-03	Water	10/23/18
MW-23-3	1833402-04	Water	10/23/18
DUP-5-4Q18	1833402-05	Water	10/23/18
MW-23-2	1833402-06	Water	10/23/18
MW-23-1	1833402-07	Water	10/23/18
MW-4-5	1833402-08	Water	10/23/18
MW-4-4	1833402-09	Water	10/23/18
MW-4-3**	1833402-10**	Water	10/23/18
MW-4-2	1833402-11	Water	10/23/18
MW-4-1	1833402-12	Water	10/23/18
EB-6-102318	1833402-13	Water	10/23/18
MW-23-5MS	1833402-02MS	Water	10/23/18
MW-23-5MSD	1833402-02MSD	Water	10/23/18
MW-23-5DUP	1833402-02DUP	Water	10/23/18
MW-4-2MS	1833402-11MS	Water	10/23/18
MW-4-2MSD	1833402-11MSD	Water	10/23/18
MW-4-2DUP	1833402-11DUP	Water	10/23/18

\*\*Indicates sample underwent Level IV validation

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with a modified outline of the USEPA National Functional Guidelines (NFG) for Inorganic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following methods:

Hexavalent Chromium by Environmental Protection Agency (EPA) SW 846 Method 7196

Perchlorate by EPA Method 314.0

All sample results were subjected to Level III data validation, which comprises an evaluation of quality control (QC) summary results. Samples appended with a double asterisk on the cover page were subjected to Level IV data validation, which is comprised of the QC summary forms as well as the raw data, to confirm sample quantitation and identification.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated due to non-conformances discovered during data validation.
- U (Non-detected): The compound or analyte was analyzed for and positively identified by the laboratory; however the compound or analyte should be considered non-detected at the reported concentration due to the presence of contaminants detected in the associated blank(s).
- UJ (Non-detected estimated): The compound or analyte was reported as not detected by the laboratory; however the reported quantitation/detection limit is estimated due to non-conformances discovered during data validation.
- R (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.



## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition.

All technical holding time requirements were met.

## **II. Initial Calibration**

All criteria for the initial calibration of each method were met.

## **III. Continuing Calibration**

Continuing calibration frequency and analysis criteria were met for each method when applicable.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the methods. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

Sample EB-6-102318 was identified as an equipment blank. No contaminants were found.

## **VI. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **VII. Duplicate Sample Analysis**

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the methods. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

Samples MW-23-3 and DUP-5-4Q18 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Analyte	Concentration		RPD
	MW-23-3	DUP-5-4Q18	
Hexavalent chromium	0.0037 mg/L	0.0036 mg/L	3
Perchlorate	2.9 ug/L	3.0 ug/L	3

### X. Sample Result Verification

All sample result verifications were acceptable for samples which underwent Level IV validation. Raw data were not reviewed for Level III validation.

### XI. Overall Assessment of Data

The analysis was conducted within all specifications of the methods. No results were rejected in this SDG.

The quality control criteria reviewed were met and are considered acceptable. Based upon the data validation all results are considered valid and usable for all purposes.

**NASA JPL, 4Q2018**  
**Wet Chemistry - Data Qualification Summary - SDG 1833402**

No Sample Data Qualified in this SDG

**NASA JPL, 4Q2018**  
**Wet Chemistry - Laboratory Blank Data Qualification Summary - SDG 1833402**

No Sample Data Qualified in this SDG

LDC #: 43795A6

**VALIDATION COMPLETENESS WORKSHEET**

Date: 12-13-18

SDG #: 1833409 / 1833402

Level III/IV

Page: 1 of 2

Laboratory: BC Laboratories, Inc.

mB

Reviewer: MG

2nd Reviewer: J

**METHOD: (Analyte) Hexavalent Chromium (EPA SW846 Method 7196), Perchlorate (EPA Method 314.0)**

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A	
II	Initial calibration	A	
III.	Calibration verification	A	
IV	Laboratory Blanks	A	
V	Field blanks	ND	EB=12
VI.	Matrix Spike/Matrix Spike Duplicates	A	MS/MSD
VII.	Duplicate sample analysis	A	DUP
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	SW	D=3+4
X.	Sample result verification	A	Not reviewed for Level III validation
XI	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

\*\* Indicates sample underwent Level IV validation

	Client ID	Lab ID	Matrix	Date
1	MW-23-5**	1833402-02**	Water	10/23/18
2	MW-23-4	1833402-03	Water	10/23/18
3	MW-23-3	1833402-04	Water	10/23/18
4	DUP-5-4Q18	1833402-05	Water	10/23/18
5	MW-23-2	1833402-06	Water	10/23/18
6	MW-23-1	1833402-07	Water	10/23/18
7	MW-4-5	1833402-08	Water	10/23/18
8	MW-4-4	1833402-09	Water	10/23/18
9	MW-4-3**	1833402-10**	Water	10/23/18
10	MW-4-2	1833402-11	Water	10/23/18
11	MW-4-1	1833402-12	Water	10/23/18
12	EB-6-102318	1833402-13	Water	10/23/18
13	MW-23-5MS	1833402-02MS	Water	10/23/18
14	MW-23-5MSD	1833402-02MSD	Water	10/23/18
15	MW-23-5DUP	1833402-02DUP	Water	10/23/18
16	MW-4-2MS	1833402-11MS	Water	10/23/18
17	MW-4-2MSD	1833402-11MSD	Water	10/23/18

LDC #: 43795A6  
SDG #: 1833409  
Laboratory: BC Laboratories, Inc.

# VALIDATION COMPLETENESS WORKSHEET

Level III/IV

Date: 12-13-18  
Page: 2 of 2  
Reviewer: MG  
2nd Reviewer: [Signature]

**METHOD: (Analyte)** Hexavalent Chromium (EPA SW846 Method 7196), Perchlorate (EPA Method 314.0)

	Client ID	Lab ID	Matrix	Date
17 <sup>18</sup>	MW-4-2DUP	1833402-11DUP	Water	10/23/18
18	PBW1			
19	PBW2			

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Method: Inorganics (EPA Method *see cover*)

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
<b>II. Calibration</b>				
Were all instruments calibrated daily, each set-up time?	✓			
Were the proper number of standards used?	✓			
Were all initial calibration correlation coefficients $> 0.995$ ?	✓			
Were all initial and continuing calibration verification %Rs within the 90-110% QC limits?	✓			
Were titrant checks performed as required? (Level IV only)			✓	
Were balance checks performed as required? (Level IV only)			✓	
<b>III. Blanks</b>				
Was a method blank associated with every sample in this SDG?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
<b>IV. Matrix spike/Matrix spike duplicates and Duplicates</b>				
Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.	✓			
Were the MS/MSD or duplicate relative percent differences (RPD) $\leq 20\%$ for waters and $\leq 35\%$ for soil samples? A control limit of $\leq 2X$ CRDL ( $\leq 2X$ CRDL for soil) was used for samples that were $\leq 5X$ the CRDL, including when only one of the duplicate sample values were $\leq 5X$ the CRDL.	✓			
<b>V. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% (85-115% for Method 300.0) QC limits?	✓			
<b>VI. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

VALIDATION FINDINGS CHECKLIST

Validation Area	Yes	No	NA	Findings/Comments
<b>VII. Sample Result Verification</b>				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
Were detection limits < RL?	✓			
<b>VIII. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	✓			
<b>IX. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	✓			
Target analytes were detected in the field duplicates.	✓			
<b>X. Field blanks</b>				
Field blanks were identified in this SDG.	✓			
Target analytes were detected in the field blanks.		✓		





**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

Inorganics, Method See Cover

Analyte	Concentration (mg/L)		RPD	
	3	4		
Hexavalent Chromium	0.0037	0.0036	3	
Perchlorate (ug/L)	2.9	3.0	3	

V:\FIELD DUPLICATES\Field Duplicates\FD\_inorganic\2018\43795A6.WPD

LDC #: 43795A6

**VALIDATION FINDINGS WORKSHEET**  
**Initial and Continuing Calibration Calculation Verification**

Page: 1 of 1  
 Reviewer: MG  
 2nd Reviewer: [Signature]

**METHOD:** Inorganics, Method See cover

The correlation coefficient (r) for the calibration of C104 was recalculated. Calibration date: 10-29-18

An initial or continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

$$\%R = \frac{\text{Found}}{\text{True}} \times 100$$

Where, Found = concentration of each analyte measured in the analysis of the ICV or CCV solution  
 True = concentration of each analyte in the ICV or CCV source

Type of Analysis	Analyte	Standard ID	Conc. Found (units)	Area True (units)	Recalculated	Reported	Acceptable (Y/N)
					r or %R	r or %R	
Initial calibration	C104	Blank	-	-	$r^2 = 0.999573$	$r^2 = 0.999288$	Y
		Standard 1	2.5 (µg/L)	0.0028			
		Standard 2	4.0 ( )	0.0046			
		Standard 3	6.0 ( )	0.0064			
		Standard 4	10.0 ( )	0.0112			
		Standard 5	20.0 ( )	0.0223			
		Standard 6	-	-			
		Standard 7	-	-			
Calibration verification	Cr VI	0046 CCV7	0.051 (mg/L)	0.050 (mg/L)	102	102	↓
Calibration verification	C104	0030 CCV1	9.625 (mg/L)	10.00 (mg/L)	96.2	96.2	
Calibration verification	-	-	-	-	-	-	

Comments: Refer to Calibration Verification findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 43795A6

**VALIDATION FINDINGS WORKSHEET**  
**Level IV Recalculation Worksheet**

Page: 1 of 1  
 Reviewer: MG  
 2nd Reviewer: [Signature]

**METHOD:** Inorganics, Method see cover

Percent recoveries (%R) for a laboratory control sample and a matrix spike sample were recalculated using the following formula:

$\%R = \frac{\text{Found}}{\text{True}} \times 100$  Where, Found = concentration of each analyte measured in the analysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result) - SR (sample result).  
 True = concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

$RPD = \frac{|S-D|}{(S+D)/2} \times 100$  Where, S = Original sample concentration  
 D = Duplicate sample concentration

Sample ID	Type of Analysis	Element	Found / S (units)	True / D (units)	Recalculated	Reported	Acceptable (Y/N)
					%R / RPD	%R / RPD	
<u>0010</u> <u>LCS</u>	Laboratory control sample	<u>Cr VI</u>	<u>0.055 (mg/L)</u>	<u>0.050 (mg/L)</u>	<u>110</u>	<u>109</u>	<u>Y</u>
<u>2379</u> <u>13</u>	Matrix spike sample	<u>C104</u>	<u>(SSR-SR)</u> <u>11.16 (ug/L)</u>	<u>10.101 (ug/L)</u>	<u>110</u>	<u>111</u>	↓
<u>0010/0033</u> <u>15</u>	Duplicate sample	<u>Cr VI</u>	<u>(mg/L)</u> <u>0.000704</u>	<u>(mg/L)</u> <u>0.000704</u>	<u>0</u>	<u>-</u>	

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

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## NASA JPL, 4Q2018 - LDC#43795

SDG: 1833402

Analytical Method		EPA-200.8									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
DUP-5-4Q18	1833402-05	Total Recoverable Chromium	10/31/2018	3.1	Y	y	v		3.0	0.50	ug/L
EB-6-102318	1833402-13	Total Recoverable Chromium	11/1/2018	1	Y	y	v j		3.0	0.50	ug/L
MW-23-1	1833402-07	Total Recoverable Chromium	10/31/2018	2.3	Y	y	v j	U	3.0	0.50	ug/L
MW-23-2	1833402-06	Total Recoverable Chromium	10/31/2018	0.87	Y	y	v j	U	3.0	0.50	ug/L
MW-23-3	1833402-04	Total Recoverable Chromium	10/31/2018	3	Y	y	v		3.0	0.50	ug/L
MW-23-4	1833402-03	Total Recoverable Chromium	10/31/2018	4.3	Y	y	v		3.0	0.50	ug/L
MW-23-5	1833402-02	Total Recoverable Chromium	10/31/2018	3	Y	n	u		3.0	0.50	ug/L
MW-4-1	1833402-12	Total Recoverable Chromium	11/1/2018	0.57	Y	y	v j		3.0	0.50	ug/L
MW-4-2	1833402-11	Total Recoverable Chromium	10/31/2018	4.1	Y	y	v		3.0	0.50	ug/L
MW-4-3	1833402-10	Total Recoverable Chromium	10/31/2018	3	Y	n	u		3.0	0.50	ug/L
MW-4-4	1833402-09	Total Recoverable Chromium	10/31/2018	3	Y	n	u		3.0	0.50	ug/L
MW-4-5	1833402-08	Total Recoverable Chromium	10/31/2018	5.6	Y	y	v		3.0	0.50	ug/L

Analytical Method		EPA-314.0									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
DUP-5-4Q18	1833402-05	Perchlorate	11/1/2018	3	Y	y	v j		4.0	0.92	ug/L
EB-6-102318	1833402-13	Perchlorate	11/1/2018	4	Y	n	u		4.0	0.92	ug/L
MW-23-1	1833402-07	Perchlorate	11/1/2018	4	Y	y	v		4.0	0.92	ug/L
MW-23-2	1833402-06	Perchlorate	11/1/2018	4.9	Y	y	v		4.0	0.92	ug/L
MW-23-3	1833402-04	Perchlorate	11/1/2018	2.9	Y	y	v j		4.0	0.92	ug/L
MW-23-4	1833402-03	Perchlorate	10/31/2018	1.4	Y	y	v j		4.0	0.92	ug/L
MW-23-5	1833402-02	Perchlorate	10/31/2018	4	Y	n	u		4.0	0.92	ug/L
MW-4-1	1833402-12	Perchlorate	11/1/2018	4	Y	n	u		4.0	0.92	ug/L
MW-4-2	1833402-11	Perchlorate	11/1/2018	9.9	Y	y	v		4.0	0.92	ug/L

SDG: 1833402

Analytical Method		EPA-314.0									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-4-3	1833402-10	Perchlorate	11/1/2018	4	Y	n	u		4.0	0.92	ug/L
MW-4-4	1833402-09	Perchlorate	11/1/2018	4	Y	n	u		4.0	0.92	ug/L
MW-4-5	1833402-08	Perchlorate	11/1/2018	4	Y	n	u		4.0	0.92	ug/L

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
DUP-5-4Q18	1833402-05	Acrylonitrile	10/28/2018	5	Y	n	u		5.0	1.5	ug/L
DUP-5-4Q18	1833402-05	Allyl chloride	10/28/2018	5	Y	n	u		5.0	0.47	ug/L
DUP-5-4Q18	1833402-05	t-Amyl Methyl ether	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
DUP-5-4Q18	1833402-05	t-Butyl alcohol	10/28/2018	10	Y	n	u		10	9.4	ug/L
DUP-5-4Q18	1833402-05	Carbon disulfide	10/28/2018	1	Y	n	u		1.0	0.48	ug/L
DUP-5-4Q18	1833402-05	trans-1,4-Dichloro-2-butene	10/28/2018	5	Y	n	u		5.0	1.8	ug/L
DUP-5-4Q18	1833402-05	Ethyl methacrylate	10/28/2018	4	Y	n	u		4.0	1.3	ug/L
DUP-5-4Q18	1833402-05	Diethyl ether	10/28/2018	2	Y	n	u		2.0	0.33	ug/L
DUP-5-4Q18	1833402-05	Vinyl chloride	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
DUP-5-4Q18	1833402-05	1,2,4-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-5-4Q18	1833402-05	1,1,2-Trichloro-1,2,2-trifluoroethane	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
DUP-5-4Q18	1833402-05	1,2,3-Trichloropropane	10/28/2018	1	Y	n	u		1.0	0.78	ug/L
DUP-5-4Q18	1833402-05	Trichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
DUP-5-4Q18	1833402-05	1,1,2-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
DUP-5-4Q18	1833402-05	Ethyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.32	ug/L
DUP-5-4Q18	1833402-05	o-Xylene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
DUP-5-4Q18	1833402-05	Trichlorofluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-5-4Q18	1833402-05	Propionitrile	10/28/2018	20	Y	n	u		20	6.2	ug/L
DUP-5-4Q18	1833402-05	2-Nitropropane	10/28/2018	0	Y	y	v				ug/L

SDG: 1833402

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
DUP-5-4Q18	1833402-05	Nitrobenzene	10/28/2018	0	Y	y	v				ug/L
DUP-5-4Q18	1833402-05	Methyl acrylate	10/28/2018	0	Y	y	v				ug/L
DUP-5-4Q18	1833402-05	1,1-Dichloropropanone	10/28/2018	0	Y	y	v				ug/L
DUP-5-4Q18	1833402-05	1-Chlorobutane	10/28/2018	0	Y	y	v				ug/L
DUP-5-4Q18	1833402-05	Chloroacetonitrile	10/28/2018	0	Y	y	v				ug/L
DUP-5-4Q18	1833402-05	1,1,1,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
DUP-5-4Q18	1833402-05	Tetrahydrofuran	10/28/2018	20	Y	n	u		20	5.2	ug/L
DUP-5-4Q18	1833402-05	1,1,1-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
DUP-5-4Q18	1833402-05	Hexachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
DUP-5-4Q18	1833402-05	Pentachloroethane	10/28/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
DUP-5-4Q18	1833402-05	Methyl methacrylate	10/28/2018	5	Y	n	u		5.0	1.2	ug/L
DUP-5-4Q18	1833402-05	Methyl isobutyl ketone	10/28/2018	10	Y	n	u		10	2.4	ug/L
DUP-5-4Q18	1833402-05	Methyl iodide	10/28/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
DUP-5-4Q18	1833402-05	Methyl ethyl ketone	10/28/2018	10	Y	n	u		10	3.3	ug/L
DUP-5-4Q18	1833402-05	Methacrylonitrile	10/28/2018	10	Y	n	u		10	2.3	ug/L
DUP-5-4Q18	1833402-05	2-Hexanone	10/28/2018	10	Y	n	u		10	5.0	ug/L
DUP-5-4Q18	1833402-05	p- & m-Xylenes	10/28/2018	0.5	Y	n	u		0.50	0.34	ug/L
DUP-5-4Q18	1833402-05	Chlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-5-4Q18	1833402-05	Tetrachloroethene	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
DUP-5-4Q18	1833402-05	1,3-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
DUP-5-4Q18	1833402-05	1,2-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
DUP-5-4Q18	1833402-05	Dibromomethane	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
DUP-5-4Q18	1833402-05	1,2-Dibromoethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
DUP-5-4Q18	1833402-05	1,2-Dibromo-3-chloropropane	10/28/2018	1	Y	n	u		1.0	0.89	ug/L
DUP-5-4Q18	1833402-05	Dibromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L

SDG: 1833402

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
DUP-5-4Q18	1833402-05	4-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.093	ug/L
DUP-5-4Q18	1833402-05	2-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-5-4Q18	1833402-05	Chloromethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
DUP-5-4Q18	1833402-05	Dichlorodifluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-5-4Q18	1833402-05	Chloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-5-4Q18	1833402-05	1,1-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-5-4Q18	1833402-05	Carbon tetrachloride	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-5-4Q18	1833402-05	tert-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
DUP-5-4Q18	1833402-05	sec-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
DUP-5-4Q18	1833402-05	n-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-5-4Q18	1833402-05	Bromomethane	10/28/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
DUP-5-4Q18	1833402-05	Bromoform	10/28/2018	0.5	Y	n	u		0.50	0.46	ug/L
DUP-5-4Q18	1833402-05	Bromodichloromethane	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
DUP-5-4Q18	1833402-05	Bromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
DUP-5-4Q18	1833402-05	Bromobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-5-4Q18	1833402-05	Benzene	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
DUP-5-4Q18	1833402-05	Chloroform	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-5-4Q18	1833402-05	Ethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-5-4Q18	1833402-05	1,2,3-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
DUP-5-4Q18	1833402-05	Toluene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-5-4Q18	1833402-05	1,1,2,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-5-4Q18	1833402-05	Acetone	10/28/2018	10	Y	n	u		10	6.6	ug/L
DUP-5-4Q18	1833402-05	Styrene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
DUP-5-4Q18	1833402-05	n-Propylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
DUP-5-4Q18	1833402-05	Naphthalene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L



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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
DUP-5-4Q18	1833402-05	Methyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-5-4Q18	1833402-05	Methylene chloride	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
DUP-5-4Q18	1833402-05	p-Isopropyltoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-5-4Q18	1833402-05	1,4-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-5-4Q18	1833402-05	Hexachlorobutadiene	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
DUP-5-4Q18	1833402-05	1,2,4-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-5-4Q18	1833402-05	trans-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
DUP-5-4Q18	1833402-05	cis-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-5-4Q18	1833402-05	1,1-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
DUP-5-4Q18	1833402-05	2,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
DUP-5-4Q18	1833402-05	1,3-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
DUP-5-4Q18	1833402-05	1,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-5-4Q18	1833402-05	trans-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-5-4Q18	1833402-05	cis-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
DUP-5-4Q18	1833402-05	1,1-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
DUP-5-4Q18	1833402-05	1,2-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-5-4Q18	1833402-05	Isopropylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-5-4Q18	1833402-05	1,3,5-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-6-102318	1833402-13	1,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-6-102318	1833402-13	Dibromomethane	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
EB-6-102318	1833402-13	1,2-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
EB-6-102318	1833402-13	1,3-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
EB-6-102318	1833402-13	1,4-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-6-102318	1833402-13	Dichlorodifluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-6-102318	1833402-13	1,1-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L

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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
EB-6-102318	1833402-13	1,2-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-6-102318	1833402-13	1,1-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
EB-6-102318	1833402-13	2-Nitropropane	10/28/2018	0	Y	y	v				ug/L
EB-6-102318	1833402-13	trans-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-6-102318	1833402-13	Dibromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
EB-6-102318	1833402-13	1,3-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
EB-6-102318	1833402-13	1,1-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
EB-6-102318	1833402-13	trans-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
EB-6-102318	1833402-13	Ethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-6-102318	1833402-13	Hexachlorobutadiene	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
EB-6-102318	1833402-13	Isopropylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-6-102318	1833402-13	p-Isopropyltoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-6-102318	1833402-13	cis-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
EB-6-102318	1833402-13	tert-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
EB-6-102318	1833402-13	Nitrobenzene	10/28/2018	0	Y	y	v				ug/L
EB-6-102318	1833402-13	Methyl acrylate	10/28/2018	0	Y	y	v				ug/L
EB-6-102318	1833402-13	Benzene	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
EB-6-102318	1833402-13	Bromobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-6-102318	1833402-13	Bromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
EB-6-102318	1833402-13	Bromodichloromethane	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
EB-6-102318	1833402-13	Bromoform	10/28/2018	0.5	Y	n	u		0.50	0.46	ug/L
EB-6-102318	1833402-13	Bromomethane	10/28/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
EB-6-102318	1833402-13	1,2-Dibromoethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
EB-6-102318	1833402-13	sec-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
EB-6-102318	1833402-13	1,2-Dibromo-3-chloropropane	10/28/2018	1	Y	n	u		1.0	0.89	ug/L

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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
EB-6-102318	1833402-13	Carbon tetrachloride	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-6-102318	1833402-13	Chlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-6-102318	1833402-13	Chloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-6-102318	1833402-13	Chloroform	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-6-102318	1833402-13	Chloromethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
EB-6-102318	1833402-13	2-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-6-102318	1833402-13	4-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.093	ug/L
EB-6-102318	1833402-13	Naphthalene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
EB-6-102318	1833402-13	n-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-6-102318	1833402-13	Methyl ethyl ketone	10/28/2018	10	Y	n	u		10	3.3	ug/L
EB-6-102318	1833402-13	Methylene chloride	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
EB-6-102318	1833402-13	t-Butyl alcohol	10/28/2018	10	Y	n	u		10	9.4	ug/L
EB-6-102318	1833402-13	Carbon disulfide	10/28/2018	1	Y	n	u		1.0	0.48	ug/L
EB-6-102318	1833402-13	trans-1,4-Dichloro-2-butene	10/28/2018	5	Y	n	u	UJ	5.0	1.8	ug/L
EB-6-102318	1833402-13	Diethyl ether	10/28/2018	2	Y	n	u		2.0	0.33	ug/L
EB-6-102318	1833402-13	Ethyl methacrylate	10/28/2018	4	Y	n	u		4.0	1.3	ug/L
EB-6-102318	1833402-13	Ethyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.32	ug/L
EB-6-102318	1833402-13	Hexachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
EB-6-102318	1833402-13	Allyl chloride	10/28/2018	5	Y	n	u		5.0	0.47	ug/L
EB-6-102318	1833402-13	Methacrylonitrile	10/28/2018	10	Y	n	u		10	2.3	ug/L
EB-6-102318	1833402-13	Acrylonitrile	10/28/2018	5	Y	n	u		5.0	1.5	ug/L
EB-6-102318	1833402-13	Methyl iodide	10/28/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
EB-6-102318	1833402-13	Methyl isobutyl ketone	10/28/2018	10	Y	n	u		10	2.4	ug/L
EB-6-102318	1833402-13	Methyl methacrylate	10/28/2018	5	Y	n	u		5.0	1.2	ug/L
EB-6-102318	1833402-13	Pentachloroethane	10/28/2018	2	Y	n	u	UJ	2.0	0.63	ug/L

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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
EB-6-102318	1833402-13	Propionitrile	10/28/2018	20	Y	n	u		20	6.2	ug/L
EB-6-102318	1833402-13	Tetrahydrofuran	10/28/2018	20	Y	n	u		20	5.2	ug/L
EB-6-102318	1833402-13	1,1-Dichloropropanone	10/28/2018	0	Y	y	v				ug/L
EB-6-102318	1833402-13	1-Chlorobutane	10/28/2018	0	Y	y	v				ug/L
EB-6-102318	1833402-13	2-Hexanone	10/28/2018	10	Y	n	u		10	5.0	ug/L
EB-6-102318	1833402-13	1,1,2-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
EB-6-102318	1833402-13	2,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
EB-6-102318	1833402-13	n-Propylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
EB-6-102318	1833402-13	Styrene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
EB-6-102318	1833402-13	1,1,1,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
EB-6-102318	1833402-13	1,1,2,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-6-102318	1833402-13	Tetrachloroethene	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
EB-6-102318	1833402-13	Toluene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-6-102318	1833402-13	1,2,3-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
EB-6-102318	1833402-13	t-Amyl Methyl ether	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
EB-6-102318	1833402-13	1,1,1-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
EB-6-102318	1833402-13	Methyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-6-102318	1833402-13	Trichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
EB-6-102318	1833402-13	Trichlorofluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-6-102318	1833402-13	1,2,3-Trichloropropane	10/28/2018	1	Y	n	u		1.0	0.78	ug/L
EB-6-102318	1833402-13	1,1,2-Trichloro-1,2,2-trifluoroethane	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
EB-6-102318	1833402-13	1,2,4-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-6-102318	1833402-13	1,3,5-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-6-102318	1833402-13	Vinyl chloride	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
EB-6-102318	1833402-13	Acetone	10/28/2018	10	Y	n	u		10	6.6	ug/L

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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
EB-6-102318	1833402-13	1,2,4-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-6-102318	1833402-13	p- & m-Xylenes	10/28/2018	0.5	Y	n	u		0.50	0.34	ug/L
EB-6-102318	1833402-13	o-Xylene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
EB-6-102318	1833402-13	Chloroacetonitrile	10/28/2018	0	Y	y	v				ug/L
EB-6-102318	1833402-13	cis-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-23-1	1833402-07	Trichlorofluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-23-1	1833402-07	n-Propylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-23-1	1833402-07	Styrene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-23-1	1833402-07	1,1,1,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-23-1	1833402-07	1,1,2,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-23-1	1833402-07	Tetrachloroethene	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-23-1	1833402-07	Toluene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-23-1	1833402-07	1,2,4-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-23-1	1833402-07	Naphthalene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-23-1	1833402-07	Trichloroethene	10/28/2018	1.2	Y	y	v		0.50	0.19	ug/L
MW-23-1	1833402-07	p-Isopropyltoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-23-1	1833402-07	1,2,3-Trichloropropane	10/28/2018	1	Y	n	u		1.0	0.78	ug/L
MW-23-1	1833402-07	1,1,2-Trichloro-1,2,2-trifluoroethane	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-23-1	1833402-07	1,2,4-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-23-1	1833402-07	1,1,2-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-23-1	1833402-07	1,3,5-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-23-1	1833402-07	Methylene chloride	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-23-1	1833402-07	Acrylonitrile	10/28/2018	5	Y	n	u		5.0	1.5	ug/L
MW-23-1	1833402-07	Isopropylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-23-1	1833402-07	Hexachlorobutadiene	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L

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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-23-1	1833402-07	Ethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-23-1	1833402-07	trans-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-23-1	1833402-07	cis-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-23-1	1833402-07	1,1-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-23-1	1833402-07	2,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-23-1	1833402-07	1,3-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-23-1	1833402-07	1,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-23-1	1833402-07	trans-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-23-1	1833402-07	cis-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-23-1	1833402-07	Methyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-23-1	1833402-07	Methyl ethyl ketone	10/28/2018	10	Y	n	u		10	3.3	ug/L
MW-23-1	1833402-07	2-Nitropropane	10/28/2018	0	Y	y	v				ug/L
MW-23-1	1833402-07	Nitrobenzene	10/28/2018	0	Y	y	v				ug/L
MW-23-1	1833402-07	Methyl acrylate	10/28/2018	0	Y	y	v				ug/L
MW-23-1	1833402-07	1,1-Dichloropropanone	10/28/2018	0	Y	y	v				ug/L
MW-23-1	1833402-07	1-Chlorobutane	10/28/2018	0	Y	y	v				ug/L
MW-23-1	1833402-07	Chloroacetonitrile	10/28/2018	0	Y	y	v				ug/L
MW-23-1	1833402-07	o-Xylene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-23-1	1833402-07	p- & m-Xylenes	10/28/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-23-1	1833402-07	Tetrahydrofuran	10/28/2018	20	Y	n	u		20	5.2	ug/L
MW-23-1	1833402-07	Propionitrile	10/28/2018	20	Y	n	u		20	6.2	ug/L
MW-23-1	1833402-07	Pentachloroethane	10/28/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-23-1	1833402-07	Methyl methacrylate	10/28/2018	5	Y	n	u		5.0	1.2	ug/L
MW-23-1	1833402-07	Vinyl chloride	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-23-1	1833402-07	Methyl iodide	10/28/2018	2	Y	n	u	UJ	2.0	1.1	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-23-1	1833402-07	1,1-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-23-1	1833402-07	Methacrylonitrile	10/28/2018	10	Y	n	u		10	2.3	ug/L
MW-23-1	1833402-07	2-Hexanone	10/28/2018	10	Y	n	u		10	5.0	ug/L
MW-23-1	1833402-07	Hexachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-23-1	1833402-07	Ethyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.32	ug/L
MW-23-1	1833402-07	Ethyl methacrylate	10/28/2018	4	Y	n	u		4.0	1.3	ug/L
MW-23-1	1833402-07	Diethyl ether	10/28/2018	2	Y	n	u		2.0	0.33	ug/L
MW-23-1	1833402-07	trans-1,4-Dichloro-2-butene	10/28/2018	5	Y	n	u		5.0	1.8	ug/L
MW-23-1	1833402-07	Carbon disulfide	10/28/2018	1	Y	n	u		1.0	0.48	ug/L
MW-23-1	1833402-07	t-Butyl alcohol	10/28/2018	10	Y	n	u		10	9.4	ug/L
MW-23-1	1833402-07	t-Amyl Methyl ether	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-23-1	1833402-07	Allyl chloride	10/28/2018	5	Y	n	u		5.0	0.47	ug/L
MW-23-1	1833402-07	1,2,3-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-23-1	1833402-07	Acetone	10/28/2018	10	Y	n	u		10	6.6	ug/L
MW-23-1	1833402-07	Methyl isobutyl ketone	10/28/2018	10	Y	n	u		10	2.4	ug/L
MW-23-1	1833402-07	Carbon tetrachloride	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-23-1	1833402-07	1,2-Dibromoethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-23-1	1833402-07	1,2-Dibromo-3-chloropropane	10/28/2018	1	Y	n	u		1.0	0.89	ug/L
MW-23-1	1833402-07	Dibromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-23-1	1833402-07	4-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-23-1	1833402-07	2-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-23-1	1833402-07	Chloromethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-23-1	1833402-07	Chloroform	10/28/2018	0.45	Y	y	v j		0.50	0.14	ug/L
MW-23-1	1833402-07	Dibromomethane	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-23-1	1833402-07	Chlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-23-1	1833402-07	tert-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-23-1	1833402-07	sec-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-23-1	1833402-07	Bromomethane	10/28/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-23-1	1833402-07	Bromoform	10/28/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-23-1	1833402-07	Bromodichloromethane	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-23-1	1833402-07	Bromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-23-1	1833402-07	Bromobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-23-1	1833402-07	Benzene	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-23-1	1833402-07	1,1,1-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-23-1	1833402-07	Chloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-23-1	1833402-07	1,2-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-23-1	1833402-07	1,2-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-23-1	1833402-07	n-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-23-1	1833402-07	1,1-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-23-1	1833402-07	Dichlorodifluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-23-1	1833402-07	1,4-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-23-1	1833402-07	1,3-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-23-2	1833402-06	1,1,2,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-23-2	1833402-06	Bromoform	10/28/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-23-2	1833402-06	Diethyl ether	10/28/2018	2	Y	n	u		2.0	0.33	ug/L
MW-23-2	1833402-06	Styrene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-23-2	1833402-06	n-Propylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-23-2	1833402-06	Naphthalene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-23-2	1833402-06	Methyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-23-2	1833402-06	Methylene chloride	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L



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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-23-2	1833402-06	p-Isopropyltoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-23-2	1833402-06	1,1,1,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-23-2	1833402-06	Bromodichloromethane	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-23-2	1833402-06	Bromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-23-2	1833402-06	Hexachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-23-2	1833402-06	1,2,4-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-23-2	1833402-06	2-Hexanone	10/28/2018	10	Y	n	u		10	5.0	ug/L
MW-23-2	1833402-06	Benzene	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-23-2	1833402-06	Methacrylonitrile	10/28/2018	10	Y	n	u		10	2.3	ug/L
MW-23-2	1833402-06	Methyl ethyl ketone	10/28/2018	10	Y	n	u		10	3.3	ug/L
MW-23-2	1833402-06	Methyl iodide	10/28/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-23-2	1833402-06	Methyl isobutyl ketone	10/28/2018	10	Y	n	u		10	2.4	ug/L
MW-23-2	1833402-06	Methyl methacrylate	10/28/2018	5	Y	n	u		5.0	1.2	ug/L
MW-23-2	1833402-06	Ethyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.32	ug/L
MW-23-2	1833402-06	Pentachloroethane	10/28/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-23-2	1833402-06	Trichloroethene	10/28/2018	1	Y	y	v		0.50	0.19	ug/L
MW-23-2	1833402-06	1,1,2-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-23-2	1833402-06	Trichlorofluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-23-2	1833402-06	1,2,3-Trichloropropane	10/28/2018	1	Y	n	u		1.0	0.78	ug/L
MW-23-2	1833402-06	1,1,2-Trichloro-1,2,2-trifluoroethane	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-23-2	1833402-06	1,2,4-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-23-2	1833402-06	1,3,5-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-23-2	1833402-06	Vinyl chloride	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-23-2	1833402-06	Toluene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-23-2	1833402-06	Acetone	10/28/2018	10	Y	n	u		10	6.6	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-23-2	1833402-06	Bromobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-23-2	1833402-06	1,1,1-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-23-2	1833402-06	Acrylonitrile	10/28/2018	5	Y	n	u		5.0	1.5	ug/L
MW-23-2	1833402-06	Allyl chloride	10/28/2018	5	Y	n	u		5.0	0.47	ug/L
MW-23-2	1833402-06	t-Amyl Methyl ether	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-23-2	1833402-06	t-Butyl alcohol	10/28/2018	10	Y	n	u		10	9.4	ug/L
MW-23-2	1833402-06	Carbon disulfide	10/28/2018	1	Y	n	u		1.0	0.48	ug/L
MW-23-2	1833402-06	trans-1,4-Dichloro-2-butene	10/28/2018	5	Y	n	u		5.0	1.8	ug/L
MW-23-2	1833402-06	1,2,3-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-23-2	1833402-06	Tetrachloroethene	10/28/2018	0.25	Y	y	v j		0.50	0.23	ug/L
MW-23-2	1833402-06	Chloroform	10/28/2018	0.39	Y	y	v j		0.50	0.14	ug/L
MW-23-2	1833402-06	1,3-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-23-2	1833402-06	Chlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-23-2	1833402-06	Nitrobenzene	10/28/2018	0	Y	y	v				ug/L
MW-23-2	1833402-06	Methyl acrylate	10/28/2018	0	Y	y	v				ug/L
MW-23-2	1833402-06	2-Nitropropane	10/28/2018	0	Y	y	v				ug/L
MW-23-2	1833402-06	Ethyl methacrylate	10/28/2018	4	Y	n	u		4.0	1.3	ug/L
MW-23-2	1833402-06	Dibromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-23-2	1833402-06	1,2-Dibromo-3-chloropropane	10/28/2018	1	Y	n	u		1.0	0.89	ug/L
MW-23-2	1833402-06	1,2-Dibromoethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-23-2	1833402-06	Ethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-23-2	1833402-06	1,2-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-23-2	1833402-06	trans-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-23-2	1833402-06	1,4-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-23-2	1833402-06	Dichlorodifluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-23-2	1833402-06	1,1-Dichloroethane	10/28/2018	0.15	Y	y	v j		0.50	0.15	ug/L
MW-23-2	1833402-06	1,2-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-23-2	1833402-06	1,1-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-23-2	1833402-06	cis-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-23-2	1833402-06	trans-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-23-2	1833402-06	Isopropylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-23-2	1833402-06	Dibromomethane	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-23-2	1833402-06	Chloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-23-2	1833402-06	Tetrahydrofuran	10/28/2018	20	Y	n	u		20	5.2	ug/L
MW-23-2	1833402-06	p- & m-Xylenes	10/28/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-23-2	1833402-06	o-Xylene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-23-2	1833402-06	Chloroacetonitrile	10/28/2018	0	Y	y	v				ug/L
MW-23-2	1833402-06	1-Chlorobutane	10/28/2018	0	Y	y	v				ug/L
MW-23-2	1833402-06	1,1-Dichloropropanone	10/28/2018	0	Y	y	v				ug/L
MW-23-2	1833402-06	Bromomethane	10/28/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-23-2	1833402-06	n-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-23-2	1833402-06	sec-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-23-2	1833402-06	Hexachlorobutadiene	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-23-2	1833402-06	Carbon tetrachloride	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-23-2	1833402-06	Propionitrile	10/28/2018	20	Y	n	u		20	6.2	ug/L
MW-23-2	1833402-06	1,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-23-2	1833402-06	Chloromethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-23-2	1833402-06	2-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-23-2	1833402-06	4-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-23-2	1833402-06	1,3-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-23-2	1833402-06	2,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-23-2	1833402-06	1,1-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-23-2	1833402-06	cis-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-23-2	1833402-06	tert-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-23-3	1833402-04	1-Chlorobutane	10/28/2018	0	Y	y	v				ug/L
MW-23-3	1833402-04	1,2-Dibromoethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-23-3	1833402-04	Carbon disulfide	10/28/2018	1	Y	n	u		1.0	0.48	ug/L
MW-23-3	1833402-04	trans-1,4-Dichloro-2-butene	10/28/2018	5	Y	n	u		5.0	1.8	ug/L
MW-23-3	1833402-04	Diethyl ether	10/28/2018	2	Y	n	u		2.0	0.33	ug/L
MW-23-3	1833402-04	Ethyl methacrylate	10/28/2018	4	Y	n	u		4.0	1.3	ug/L
MW-23-3	1833402-04	Ethyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.32	ug/L
MW-23-3	1833402-04	Chloromethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-23-3	1833402-04	2-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-23-3	1833402-04	4-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-23-3	1833402-04	cis-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-23-3	1833402-04	Methyl acrylate	10/28/2018	0	Y	y	v				ug/L
MW-23-3	1833402-04	Allyl chloride	10/28/2018	5	Y	n	u		5.0	0.47	ug/L
MW-23-3	1833402-04	2-Nitropropane	10/28/2018	0	Y	y	v				ug/L
MW-23-3	1833402-04	1,2-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-23-3	1833402-04	1,3-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-23-3	1833402-04	1,4-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-23-3	1833402-04	Dichlorodifluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-23-3	1833402-04	1,1-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-23-3	1833402-04	1,2-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-23-3	1833402-04	1,1-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-23-3	1833402-04	Dibromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-23-3	1833402-04	Chlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-23-3	1833402-04	Benzene	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-23-3	1833402-04	Bromobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-23-3	1833402-04	Bromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-23-3	1833402-04	Bromodichloromethane	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-23-3	1833402-04	Bromoform	10/28/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-23-3	1833402-04	Bromomethane	10/28/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-23-3	1833402-04	n-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-23-3	1833402-04	sec-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-23-3	1833402-04	t-Butyl alcohol	10/28/2018	10	Y	n	u		10	9.4	ug/L
MW-23-3	1833402-04	Carbon tetrachloride	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-23-3	1833402-04	t-Amyl Methyl ether	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-23-3	1833402-04	Chloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-23-3	1833402-04	Chloroform	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-23-3	1833402-04	1,1,2-Trichloro-1,2,2-trifluoroethane	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-23-3	1833402-04	1,2,4-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-23-3	1833402-04	1,3,5-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-23-3	1833402-04	Vinyl chloride	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-23-3	1833402-04	Acetone	10/28/2018	10	Y	n	u		10	6.6	ug/L
MW-23-3	1833402-04	Acrylonitrile	10/28/2018	5	Y	n	u		5.0	1.5	ug/L
MW-23-3	1833402-04	Dibromomethane	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-23-3	1833402-04	tert-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-23-3	1833402-04	Styrene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-23-3	1833402-04	Pentachloroethane	10/28/2018	2	Y	n	u	UJ	2.0	0.63	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-23-3	1833402-04	Methyl methacrylate	10/28/2018	5	Y	n	u		5.0	1.2	ug/L
MW-23-3	1833402-04	Methyl isobutyl ketone	10/28/2018	10	Y	n	u		10	2.4	ug/L
MW-23-3	1833402-04	Methyl iodide	10/28/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-23-3	1833402-04	Methyl ethyl ketone	10/28/2018	10	Y	n	u		10	3.3	ug/L
MW-23-3	1833402-04	Methacrylonitrile	10/28/2018	10	Y	n	u		10	2.3	ug/L
MW-23-3	1833402-04	2-Hexanone	10/28/2018	10	Y	n	u		10	5.0	ug/L
MW-23-3	1833402-04	Hexachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-23-3	1833402-04	Trichlorofluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-23-3	1833402-04	1,2,3-Trichloropropane	10/28/2018	1	Y	n	u		1.0	0.78	ug/L
MW-23-3	1833402-04	p- & m-Xylenes	10/28/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-23-3	1833402-04	1,1,1,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-23-3	1833402-04	1,1,2,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-23-3	1833402-04	Tetrachloroethene	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-23-3	1833402-04	Toluene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-23-3	1833402-04	1,2,3-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-23-3	1833402-04	1,2,4-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-23-3	1833402-04	1,1,1-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-23-3	1833402-04	1,1,2-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-23-3	1833402-04	Trichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-23-3	1833402-04	1,2-Dibromo-3-chloropropane	10/28/2018	1	Y	n	u		1.0	0.89	ug/L
MW-23-3	1833402-04	Methylene chloride	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-23-3	1833402-04	trans-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-23-3	1833402-04	1,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-23-3	1833402-04	1,3-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-23-3	1833402-04	2,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-23-3	1833402-04	1,1-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-23-3	1833402-04	cis-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-23-3	1833402-04	trans-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-23-3	1833402-04	Ethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-23-3	1833402-04	Hexachlorobutadiene	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-23-3	1833402-04	Propionitrile	10/28/2018	20	Y	n	u		20	6.2	ug/L
MW-23-3	1833402-04	p-Isopropyltoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-23-3	1833402-04	Tetrahydrofuran	10/28/2018	20	Y	n	u		20	5.2	ug/L
MW-23-3	1833402-04	Methyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-23-3	1833402-04	Naphthalene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-23-3	1833402-04	n-Propylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-23-3	1833402-04	Nitrobenzene	10/28/2018	0	Y	y	v				ug/L
MW-23-3	1833402-04	1,1-Dichloropropanone	10/28/2018	0	Y	y	v				ug/L
MW-23-3	1833402-04	Chloroacetonitrile	10/28/2018	0	Y	y	v				ug/L
MW-23-3	1833402-04	o-Xylene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-23-3	1833402-04	Isopropylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-23-4	1833402-03	Naphthalene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-23-4	1833402-03	1,1,2,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-23-4	1833402-03	1,1,2-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-23-4	1833402-03	Acetone	10/28/2018	10	Y	n	u		10	6.6	ug/L
MW-23-4	1833402-03	Vinyl chloride	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-23-4	1833402-03	1,3,5-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-23-4	1833402-03	1,2,4-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-23-4	1833402-03	1,1,2-Trichloro-1,2,2-trifluoroethane	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-23-4	1833402-03	1,2,3-Trichloropropane	10/28/2018	1	Y	n	u		1.0	0.78	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-23-4	1833402-03	Styrene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-23-4	1833402-03	Trichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-23-4	1833402-03	n-Propylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-23-4	1833402-03	1,1,1-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-23-4	1833402-03	1,2,4-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-23-4	1833402-03	1,2,3-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-23-4	1833402-03	Toluene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-23-4	1833402-03	Tetrachloroethene	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-23-4	1833402-03	1,3-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-23-4	1833402-03	1,1,1,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-23-4	1833402-03	Trichlorofluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-23-4	1833402-03	Nitrobenzene	10/28/2018	0	Y	y	v				ug/L
MW-23-4	1833402-03	Bromomethane	10/28/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-23-4	1833402-03	Pentachloroethane	10/28/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-23-4	1833402-03	Propionitrile	10/28/2018	20	Y	n	u		20	6.2	ug/L
MW-23-4	1833402-03	Tetrahydrofuran	10/28/2018	20	Y	n	u		20	5.2	ug/L
MW-23-4	1833402-03	o-Xylene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-23-4	1833402-03	1-Chlorobutane	10/28/2018	0	Y	y	v				ug/L
MW-23-4	1833402-03	Methyl isobutyl ketone	10/28/2018	10	Y	n	u		10	2.4	ug/L
MW-23-4	1833402-03	Methyl acrylate	10/28/2018	0	Y	y	v				ug/L
MW-23-4	1833402-03	Methyl iodide	10/28/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-23-4	1833402-03	2-Nitropropane	10/28/2018	0	Y	y	v				ug/L
MW-23-4	1833402-03	Benzene	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-23-4	1833402-03	Bromobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-23-4	1833402-03	Bromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L



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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-23-4	1833402-03	Bromodichloromethane	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-23-4	1833402-03	Bromoform	10/28/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-23-4	1833402-03	1,1-Dichloropropanone	10/28/2018	0	Y	y	v				ug/L
MW-23-4	1833402-03	Diethyl ether	10/28/2018	2	Y	n	u		2.0	0.33	ug/L
MW-23-4	1833402-03	Dichlorodifluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-23-4	1833402-03	Methyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-23-4	1833402-03	Acrylonitrile	10/28/2018	5	Y	n	u		5.0	1.5	ug/L
MW-23-4	1833402-03	Allyl chloride	10/28/2018	5	Y	n	u		5.0	0.47	ug/L
MW-23-4	1833402-03	t-Amyl Methyl ether	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-23-4	1833402-03	t-Butyl alcohol	10/28/2018	10	Y	n	u		10	9.4	ug/L
MW-23-4	1833402-03	Methyl methacrylate	10/28/2018	5	Y	n	u		5.0	1.2	ug/L
MW-23-4	1833402-03	trans-1,4-Dichloro-2-butene	10/28/2018	5	Y	n	u		5.0	1.8	ug/L
MW-23-4	1833402-03	Chloroacetonitrile	10/28/2018	0	Y	y	v				ug/L
MW-23-4	1833402-03	Ethyl methacrylate	10/28/2018	4	Y	n	u		4.0	1.3	ug/L
MW-23-4	1833402-03	Ethyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.32	ug/L
MW-23-4	1833402-03	Hexachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-23-4	1833402-03	2-Hexanone	10/28/2018	10	Y	n	u		10	5.0	ug/L
MW-23-4	1833402-03	Methacrylonitrile	10/28/2018	10	Y	n	u		10	2.3	ug/L
MW-23-4	1833402-03	Methyl ethyl ketone	10/28/2018	10	Y	n	u		10	3.3	ug/L
MW-23-4	1833402-03	Carbon disulfide	10/28/2018	1	Y	n	u		1.0	0.48	ug/L
MW-23-4	1833402-03	2,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-23-4	1833402-03	Dibromomethane	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-23-4	1833402-03	1,2-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-23-4	1833402-03	1,4-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-23-4	1833402-03	1,1-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-23-4	1833402-03	1,2-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-23-4	1833402-03	1,1-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-23-4	1833402-03	cis-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-23-4	1833402-03	trans-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-23-4	1833402-03	1,2-Dibromoethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-23-4	1833402-03	1,3-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-23-4	1833402-03	cis-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-23-4	1833402-03	1,1-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-23-4	1833402-03	n-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-23-4	1833402-03	trans-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-23-4	1833402-03	p- & m-Xylenes	10/28/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-23-4	1833402-03	Hexachlorobutadiene	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-23-4	1833402-03	Isopropylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-23-4	1833402-03	p-Isopropyltoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-23-4	1833402-03	Methylene chloride	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-23-4	1833402-03	1,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-23-4	1833402-03	Ethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-23-4	1833402-03	1,2-Dibromo-3-chloropropane	10/28/2018	1	Y	n	u		1.0	0.89	ug/L
MW-23-4	1833402-03	Chlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-23-4	1833402-03	Dibromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-23-4	1833402-03	4-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-23-4	1833402-03	Carbon tetrachloride	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-23-4	1833402-03	2-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-23-4	1833402-03	Chloromethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-23-4	1833402-03	Chloroform	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-23-4	1833402-03	tert-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-23-4	1833402-03	Chloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-23-4	1833402-03	sec-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-23-5	1833402-02	1,3-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-23-5	1833402-02	1,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-23-5	1833402-02	trans-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-23-5	1833402-02	1,1-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-23-5	1833402-02	1,2-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-23-5	1833402-02	1,1-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-23-5	1833402-02	Dichlorodifluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-23-5	1833402-02	cis-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-23-5	1833402-02	1,4-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-23-5	1833402-02	1,1-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-23-5	1833402-02	2-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-23-5	1833402-02	cis-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-23-5	1833402-02	trans-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-23-5	1833402-02	Ethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-23-5	1833402-02	Hexachlorobutadiene	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-23-5	1833402-02	Isopropylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-23-5	1833402-02	p-Isopropyltoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-23-5	1833402-02	Methylene chloride	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-23-5	1833402-02	Methyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-23-5	1833402-02	Naphthalene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-23-5	1833402-02	n-Propylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-23-5	1833402-02	2,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-23-5	1833402-02	Bromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-23-5	1833402-02	Styrene	10/28/2018	0.3	Y	y	v j		0.50	0.12	ug/L
MW-23-5	1833402-02	Bromobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-23-5	1833402-02	Benzene	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-23-5	1833402-02	Chlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-23-5	1833402-02	Carbon tetrachloride	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-23-5	1833402-02	tert-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-23-5	1833402-02	sec-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-23-5	1833402-02	n-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-23-5	1833402-02	Bromomethane	10/28/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-23-5	1833402-02	Dibromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-23-5	1833402-02	Bromodichloromethane	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-23-5	1833402-02	1,3-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-23-5	1833402-02	Chloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-23-5	1833402-02	Chloroform	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-23-5	1833402-02	Chloromethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-23-5	1833402-02	Propionitrile	10/28/2018	20	Y	n	u		20	6.2	ug/L
MW-23-5	1833402-02	4-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-23-5	1833402-02	1,2-Dibromo-3-chloropropane	10/28/2018	1	Y	n	u		1.0	0.89	ug/L
MW-23-5	1833402-02	1,2-Dibromoethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-23-5	1833402-02	Dibromomethane	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-23-5	1833402-02	1,2-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-23-5	1833402-02	Bromoform	10/28/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-23-5	1833402-02	Tetrahydrofuran	10/28/2018	20	Y	n	u		20	5.2	ug/L
MW-23-5	1833402-02	1,1,1,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-23-5	1833402-02	Ethyl methacrylate	10/28/2018	4	Y	n	u		4.0	1.3	ug/L
MW-23-5	1833402-02	Methyl methacrylate	10/28/2018	5	Y	n	u		5.0	1.2	ug/L
MW-23-5	1833402-02	Hexachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-23-5	1833402-02	2-Hexanone	10/28/2018	10	Y	n	u		10	5.0	ug/L
MW-23-5	1833402-02	Methacrylonitrile	10/28/2018	10	Y	n	u		10	2.3	ug/L
MW-23-5	1833402-02	Methyl ethyl ketone	10/28/2018	10	Y	n	u		10	3.3	ug/L
MW-23-5	1833402-02	Methyl iodide	10/28/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-23-5	1833402-02	trans-1,4-Dichloro-2-butene	10/28/2018	5	Y	n	u		5.0	1.8	ug/L
MW-23-5	1833402-02	Pentachloroethane	10/28/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-23-5	1833402-02	Diethyl ether	10/28/2018	2	Y	n	u		2.0	0.33	ug/L
MW-23-5	1833402-02	p- & m-Xylenes	10/28/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-23-5	1833402-02	o-Xylene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-23-5	1833402-02	Chloroacetonitrile	10/28/2018	0	Y	y	v				ug/L
MW-23-5	1833402-02	1-Chlorobutane	10/28/2018	0	Y	y	v				ug/L
MW-23-5	1833402-02	1,1-Dichloropropanone	10/28/2018	0	Y	y	v				ug/L
MW-23-5	1833402-02	Methyl acrylate	10/28/2018	0	Y	y	v				ug/L
MW-23-5	1833402-02	Nitrobenzene	10/28/2018	0	Y	y	v				ug/L
MW-23-5	1833402-02	2-Nitropropane	10/28/2018	0	Y	y	v				ug/L
MW-23-5	1833402-02	Methyl isobutyl ketone	10/28/2018	10	Y	n	u		10	2.4	ug/L
MW-23-5	1833402-02	Trichlorofluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-23-5	1833402-02	1,1,2,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-23-5	1833402-02	Tetrachloroethene	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-23-5	1833402-02	Toluene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-23-5	1833402-02	1,2,3-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-23-5	1833402-02	1,2,4-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-23-5	1833402-02	1,1,1-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-23-5	1833402-02	1,1,2-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-23-5	1833402-02	Ethyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.32	ug/L
MW-23-5	1833402-02	Trichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-23-5	1833402-02	Carbon disulfide	10/28/2018	1	Y	n	u		1.0	0.48	ug/L
MW-23-5	1833402-02	1,2,3-Trichloropropane	10/28/2018	1	Y	n	u		1.0	0.78	ug/L
MW-23-5	1833402-02	1,1,2-Trichloro-1,2,2-trifluoroethane	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-23-5	1833402-02	1,2,4-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-23-5	1833402-02	1,3,5-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-23-5	1833402-02	Vinyl chloride	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-23-5	1833402-02	Acetone	10/28/2018	10	Y	n	u		10	6.6	ug/L
MW-23-5	1833402-02	Acrylonitrile	10/28/2018	5	Y	n	u		5.0	1.5	ug/L
MW-23-5	1833402-02	Allyl chloride	10/28/2018	5	Y	n	u		5.0	0.47	ug/L
MW-23-5	1833402-02	t-Amyl Methyl ether	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-23-5	1833402-02	t-Butyl alcohol	10/28/2018	10	Y	n	u		10	9.4	ug/L
MW-4-1	1833402-12	1-Chlorobutane	10/28/2018	0	Y	y	v				ug/L
MW-4-1	1833402-12	Nitrobenzene	10/28/2018	0	Y	y	v				ug/L
MW-4-1	1833402-12	1,1-Dichloropropanone	10/28/2018	0	Y	y	v				ug/L
MW-4-1	1833402-12	2-Nitropropane	10/28/2018	0	Y	y	v				ug/L
MW-4-1	1833402-12	1,1-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-4-1	1833402-12	Naphthalene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-4-1	1833402-12	1,1-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-4-1	1833402-12	1,2-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-4-1	1833402-12	1,1-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-4-1	1833402-12	cis-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-4-1	1833402-12	trans-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-4-1	1833402-12	1,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-4-1	1833402-12	Methyl acrylate	10/28/2018	0	Y	y	v				ug/L
MW-4-1	1833402-12	1,3-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-4-1	1833402-12	2,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-4-1	1833402-12	Dibromomethane	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-4-1	1833402-12	cis-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-1	1833402-12	trans-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-4-1	1833402-12	Ethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-4-1	1833402-12	Hexachlorobutadiene	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-4-1	1833402-12	Isopropylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-1	1833402-12	p-Isopropyltoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-1	1833402-12	Methylene chloride	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-4-1	1833402-12	Methyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-1	1833402-12	1,3-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-4-1	1833402-12	Chlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-1	1833402-12	Benzene	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-4-1	1833402-12	Bromobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-4-1	1833402-12	Bromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-4-1	1833402-12	Bromodichloromethane	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-4-1	1833402-12	Bromoform	10/28/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-4-1	1833402-12	Bromomethane	10/28/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-4-1	1833402-12	n-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-4-1	1833402-12	sec-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-4-1	1833402-12	Dichlorodifluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-4-1	1833402-12	Carbon tetrachloride	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-4-1	1833402-12	1,4-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-4-1	1833402-12	Chloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-4-1	1833402-12	Chloroform	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-1	1833402-12	Chloromethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-4-1	1833402-12	2-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-1	1833402-12	4-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-4-1	1833402-12	Dibromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-4-1	1833402-12	1,2-Dibromo-3-chloropropane	10/28/2018	1	Y	n	u		1.0	0.89	ug/L
MW-4-1	1833402-12	1,2-Dibromoethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-4-1	1833402-12	tert-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-4-1	1833402-12	Methyl isobutyl ketone	10/28/2018	10	Y	n	u		10	2.4	ug/L
MW-4-1	1833402-12	Carbon disulfide	10/28/2018	1	Y	n	u		1.0	0.48	ug/L
MW-4-1	1833402-12	trans-1,4-Dichloro-2-butene	10/28/2018	5	Y	n	u	UJ	5.0	1.8	ug/L
MW-4-1	1833402-12	Diethyl ether	10/28/2018	2	Y	n	u		2.0	0.33	ug/L
MW-4-1	1833402-12	Ethyl methacrylate	10/28/2018	4	Y	n	u		4.0	1.3	ug/L
MW-4-1	1833402-12	Ethyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.32	ug/L
MW-4-1	1833402-12	Hexachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-4-1	1833402-12	2-Hexanone	10/28/2018	10	Y	n	u		10	5.0	ug/L
MW-4-1	1833402-12	Methacrylonitrile	10/28/2018	10	Y	n	u		10	2.3	ug/L
MW-4-1	1833402-12	t-Butyl alcohol	10/28/2018	10	Y	n	u		10	9.4	ug/L
MW-4-1	1833402-12	Methyl iodide	10/28/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-4-1	1833402-12	o-Xylene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-4-1	1833402-12	Methyl methacrylate	10/28/2018	5	Y	n	u		5.0	1.2	ug/L
MW-4-1	1833402-12	Pentachloroethane	10/28/2018	2	Y	n	u	UJ	2.0	0.63	ug/L



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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-4-1	1833402-12	Propionitrile	10/28/2018	20	Y	n	u		20	6.2	ug/L
MW-4-1	1833402-12	Tetrahydrofuran	10/28/2018	20	Y	n	u		20	5.2	ug/L
MW-4-1	1833402-12	p- & m-Xylenes	10/28/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-4-1	1833402-12	n-Propylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-4-1	1833402-12	Chloroacetonitrile	10/28/2018	0	Y	y	v				ug/L
MW-4-1	1833402-12	1,2-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-4-1	1833402-12	Methyl ethyl ketone	10/28/2018	10	Y	n	u		10	3.3	ug/L
MW-4-1	1833402-12	1,1,2,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-4-1	1833402-12	t-Amyl Methyl ether	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-4-1	1833402-12	1,1,1,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-4-1	1833402-12	Tetrachloroethene	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-4-1	1833402-12	Toluene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-4-1	1833402-12	1,2,3-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-4-1	1833402-12	1,2,4-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-4-1	1833402-12	1,1,1-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-4-1	1833402-12	1,1,2-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-4-1	1833402-12	Trichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-4-1	1833402-12	Trichlorofluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-1	1833402-12	1,1,2-Trichloro-1,2,2-trifluoroethane	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-4-1	1833402-12	1,2,4-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-4-1	1833402-12	1,3,5-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-1	1833402-12	Vinyl chloride	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-4-1	1833402-12	Acetone	10/28/2018	10	Y	n	u		10	6.6	ug/L
MW-4-1	1833402-12	Acrylonitrile	10/28/2018	5	Y	n	u		5.0	1.5	ug/L
MW-4-1	1833402-12	Allyl chloride	10/28/2018	5	Y	n	u		5.0	0.47	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-4-1	1833402-12	Styrene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-4-1	1833402-12	1,2,3-Trichloropropane	10/28/2018	1	Y	n	u		1.0	0.78	ug/L
MW-4-2	1833402-11	Dibromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-4-2	1833402-11	Dichlorodifluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-4-2	1833402-11	1,4-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-4-2	1833402-11	1,3-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-4-2	1833402-11	1,2-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-4-2	1833402-11	Dibromomethane	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-4-2	1833402-11	trans-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-4-2	1833402-11	1,2-Dibromo-3-chloropropane	10/28/2018	1	Y	n	u		1.0	0.89	ug/L
MW-4-2	1833402-11	1,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-4-2	1833402-11	4-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-4-2	1833402-11	1,2-Dibromoethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-4-2	1833402-11	1,1-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-4-2	1833402-11	1,2-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-4-2	1833402-11	1,1-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-4-2	1833402-11	trans-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-4-2	1833402-11	1,3-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-4-2	1833402-11	2,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-4-2	1833402-11	2-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-2	1833402-11	cis-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-2	1833402-11	Bromodichloromethane	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-4-2	1833402-11	1,1-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-4-2	1833402-11	cis-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-4-2	1833402-11	Bromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L

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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-4-2	1833402-11	Ethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-4-2	1833402-11	1,1,1,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-4-2	1833402-11	Pentachloroethane	10/28/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-4-2	1833402-11	Chloroacetonitrile	10/28/2018	0	Y	y	v				ug/L
MW-4-2	1833402-11	p- & m-Xylenes	10/28/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-4-2	1833402-11	1-Chlorobutane	10/28/2018	0	Y	y	v				ug/L
MW-4-2	1833402-11	Tetrahydrofuran	10/28/2018	20	Y	n	u		20	5.2	ug/L
MW-4-2	1833402-11	Propionitrile	10/28/2018	20	Y	n	u		20	6.2	ug/L
MW-4-2	1833402-11	Bromomethane	10/28/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-4-2	1833402-11	Bromobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-4-2	1833402-11	Chloromethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-4-2	1833402-11	Bromoform	10/28/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-4-2	1833402-11	o-Xylene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-4-2	1833402-11	n-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-4-2	1833402-11	sec-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-4-2	1833402-11	tert-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-4-2	1833402-11	Carbon tetrachloride	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-4-2	1833402-11	Chlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-2	1833402-11	Chloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-4-2	1833402-11	Chloroform	10/28/2018	0.37	Y	y	v j		0.50	0.14	ug/L
MW-4-2	1833402-11	Benzene	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-4-2	1833402-11	1,1-Dichloropropanone	10/28/2018	0	Y	y	v				ug/L
MW-4-2	1833402-11	Acrylonitrile	10/28/2018	5	Y	n	u		5.0	1.5	ug/L
MW-4-2	1833402-11	Allyl chloride	10/28/2018	5	Y	n	u		5.0	0.47	ug/L
MW-4-2	1833402-11	t-Amyl Methyl ether	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-4-2	1833402-11	t-Butyl alcohol	10/28/2018	10	Y	n	u		10	9.4	ug/L
MW-4-2	1833402-11	Carbon disulfide	10/28/2018	1	Y	n	u		1.0	0.48	ug/L
MW-4-2	1833402-11	trans-1,4-Dichloro-2-butene	10/28/2018	5	Y	n	u	UJ	5.0	1.8	ug/L
MW-4-2	1833402-11	Diethyl ether	10/28/2018	2	Y	n	u		2.0	0.33	ug/L
MW-4-2	1833402-11	Ethyl methacrylate	10/28/2018	4	Y	n	u		4.0	1.3	ug/L
MW-4-2	1833402-11	Acetone	10/28/2018	10	Y	n	u		10	6.6	ug/L
MW-4-2	1833402-11	Hexachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-4-2	1833402-11	2-Nitropropane	10/28/2018	0	Y	y	v				ug/L
MW-4-2	1833402-11	2-Hexanone	10/28/2018	10	Y	n	u		10	5.0	ug/L
MW-4-2	1833402-11	Methyl acrylate	10/28/2018	0	Y	y	v				ug/L
MW-4-2	1833402-11	Nitrobenzene	10/28/2018	0	Y	y	v				ug/L
MW-4-2	1833402-11	Methacrylonitrile	10/28/2018	10	Y	n	u		10	2.3	ug/L
MW-4-2	1833402-11	Hexachlorobutadiene	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-4-2	1833402-11	Methyl ethyl ketone	10/28/2018	10	Y	n	u		10	3.3	ug/L
MW-4-2	1833402-11	n-Propylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-4-2	1833402-11	Methyl isobutyl ketone	10/28/2018	10	Y	n	u		10	2.4	ug/L
MW-4-2	1833402-11	Methyl methacrylate	10/28/2018	5	Y	n	u		5.0	1.2	ug/L
MW-4-2	1833402-11	Ethyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.32	ug/L
MW-4-2	1833402-11	Tetrachloroethene	10/28/2018	0.25	Y	y	v j		0.50	0.23	ug/L
MW-4-2	1833402-11	Isopropylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-2	1833402-11	Vinyl chloride	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-4-2	1833402-11	p-Isopropyltoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-2	1833402-11	Methyl iodide	10/28/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-4-2	1833402-11	Methyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-2	1833402-11	Methylene chloride	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-4-2	1833402-11	Styrene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-4-2	1833402-11	1,1,2,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-4-2	1833402-11	Toluene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-4-2	1833402-11	Trichlorofluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-2	1833402-11	1,2,4-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-4-2	1833402-11	1,3,5-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-2	1833402-11	1,1,1-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-4-2	1833402-11	1,1,2-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-4-2	1833402-11	Trichloroethene	10/28/2018	1	Y	y	v		0.50	0.19	ug/L
MW-4-2	1833402-11	1,2,3-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-4-2	1833402-11	1,2,4-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-4-2	1833402-11	Naphthalene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-4-2	1833402-11	1,1,2-Trichloro-1,2,2-trifluoroethane	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-4-2	1833402-11	1,2,3-Trichloropropane	10/28/2018	1	Y	n	u		1.0	0.78	ug/L
MW-4-3	1833402-10	Naphthalene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-4-3	1833402-10	n-Propylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-4-3	1833402-10	1,1,1,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-4-3	1833402-10	Methyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-3	1833402-10	2,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-4-3	1833402-10	Styrene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-4-3	1833402-10	Methylene chloride	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-4-3	1833402-10	Isopropylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-3	1833402-10	Ethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-4-3	1833402-10	trans-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-4-3	1833402-10	1,1-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-4-3	1833402-10	1,1,2-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-4-3	1833402-10	1,3-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-4-3	1833402-10	cis-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-3	1833402-10	Trichlorofluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-3	1833402-10	t-Amyl Methyl ether	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-4-3	1833402-10	Allyl chloride	10/28/2018	5	Y	n	u		5.0	0.47	ug/L
MW-4-3	1833402-10	Acrylonitrile	10/28/2018	5	Y	n	u		5.0	1.5	ug/L
MW-4-3	1833402-10	Acetone	10/28/2018	10	Y	n	u		10	6.6	ug/L
MW-4-3	1833402-10	Vinyl chloride	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-4-3	1833402-10	1,3,5-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-3	1833402-10	1,2,4-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-4-3	1833402-10	1,2,4-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-4-3	1833402-10	1,2,3-Trichloropropane	10/28/2018	1	Y	n	u		1.0	0.78	ug/L
MW-4-3	1833402-10	1,1,2,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-4-3	1833402-10	Trichloroethene	10/28/2018	0.53	Y	y	v		0.50	0.19	ug/L
MW-4-3	1833402-10	1,2-Dibromoethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-4-3	1833402-10	1,1,1-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-4-3	1833402-10	1,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-4-3	1833402-10	1,2,3-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-4-3	1833402-10	Toluene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-4-3	1833402-10	Tetrachloroethene	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-4-3	1833402-10	1,1,2-Trichloro-1,2,2-trifluoroethane	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-4-3	1833402-10	Carbon tetrachloride	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-4-3	1833402-10	1,2-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-4-3	1833402-10	Bromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-4-3	1833402-10	Bromodichloromethane	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-4-3	1833402-10	Bromoform	10/28/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-4-3	1833402-10	Bromomethane	10/28/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-4-3	1833402-10	n-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-4-3	1833402-10	Benzene	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-4-3	1833402-10	tert-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-4-3	1833402-10	t-Butyl alcohol	10/28/2018	10	Y	n	u		10	9.4	ug/L
MW-4-3	1833402-10	Chloroacetonitrile	10/28/2018	0	Y	y	v				ug/L
MW-4-3	1833402-10	1-Chlorobutane	10/28/2018	0	Y	y	v				ug/L
MW-4-3	1833402-10	1,1-Dichloropropanone	10/28/2018	0	Y	y	v				ug/L
MW-4-3	1833402-10	Methyl acrylate	10/28/2018	0	Y	y	v				ug/L
MW-4-3	1833402-10	Nitrobenzene	10/28/2018	0	Y	y	v				ug/L
MW-4-3	1833402-10	2-Nitropropane	10/28/2018	0	Y	y	v				ug/L
MW-4-3	1833402-10	p-Isopropyltoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-3	1833402-10	sec-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-4-3	1833402-10	1,2-Dibromo-3-chloropropane	10/28/2018	1	Y	n	u		1.0	0.89	ug/L
MW-4-3	1833402-10	cis-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-4-3	1833402-10	1,1-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-4-3	1833402-10	1,2-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-4-3	1833402-10	1,1-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-4-3	1833402-10	Dichlorodifluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-4-3	1833402-10	1,4-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-4-3	1833402-10	Bromobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-4-3	1833402-10	Dibromomethane	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-4-3	1833402-10	trans-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-4-3	1833402-10	Dibromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-4-3	1833402-10	4-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-4-3	1833402-10	2-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-3	1833402-10	Chloromethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-4-3	1833402-10	Chloroform	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-3	1833402-10	Chloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-4-3	1833402-10	Chlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-3	1833402-10	1,3-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-4-3	1833402-10	Propionitrile	10/28/2018	20	Y	n	u		20	6.2	ug/L
MW-4-3	1833402-10	Hexachlorobutadiene	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-4-3	1833402-10	o-Xylene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-4-3	1833402-10	Tetrahydrofuran	10/28/2018	20	Y	n	u		20	5.2	ug/L
MW-4-3	1833402-10	Carbon disulfide	10/28/2018	1	Y	n	u		1.0	0.48	ug/L
MW-4-3	1833402-10	Pentachloroethane	10/28/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-4-3	1833402-10	Methyl methacrylate	10/28/2018	5	Y	n	u		5.0	1.2	ug/L
MW-4-3	1833402-10	Methyl isobutyl ketone	10/28/2018	10	Y	n	u		10	2.4	ug/L
MW-4-3	1833402-10	Methyl iodide	10/28/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-4-3	1833402-10	trans-1,4-Dichloro-2-butene	10/28/2018	5	Y	n	u	UJ	5.0	1.8	ug/L
MW-4-3	1833402-10	Methacrylonitrile	10/28/2018	10	Y	n	u		10	2.3	ug/L
MW-4-3	1833402-10	2-Hexanone	10/28/2018	10	Y	n	u		10	5.0	ug/L
MW-4-3	1833402-10	Hexachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-4-3	1833402-10	Ethyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.32	ug/L
MW-4-3	1833402-10	Ethyl methacrylate	10/28/2018	4	Y	n	u		4.0	1.3	ug/L
MW-4-3	1833402-10	Diethyl ether	10/28/2018	2	Y	n	u		2.0	0.33	ug/L
MW-4-3	1833402-10	Methyl ethyl ketone	10/28/2018	10	Y	n	u		10	3.3	ug/L



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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-4-3	1833402-10	p- & m-Xylenes	10/28/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-4-4	1833402-09	1,1,2-Trichloro-1,2,2-trifluoroethane	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-4-4	1833402-09	1,2,4-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-4-4	1833402-09	Vinyl chloride	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-4-4	1833402-09	Acrylonitrile	10/28/2018	5	Y	n	u		5.0	1.5	ug/L
MW-4-4	1833402-09	Allyl chloride	10/28/2018	5	Y	n	u		5.0	0.47	ug/L
MW-4-4	1833402-09	t-Amyl Methyl ether	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-4-4	1833402-09	t-Butyl alcohol	10/28/2018	10	Y	n	u		10	9.4	ug/L
MW-4-4	1833402-09	trans-1,4-Dichloro-2-butene	10/28/2018	5	Y	n	u		5.0	1.8	ug/L
MW-4-4	1833402-09	1,2,3-Trichloropropane	10/28/2018	1	Y	n	u		1.0	0.78	ug/L
MW-4-4	1833402-09	Carbon disulfide	10/28/2018	1	Y	n	u		1.0	0.48	ug/L
MW-4-4	1833402-09	Trichlorofluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-4	1833402-09	Trichloroethene	10/28/2018	0.66	Y	y	v		0.50	0.19	ug/L
MW-4-4	1833402-09	1,1,2-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-4-4	1833402-09	1,1,1-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-4-4	1833402-09	1,2,4-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-4-4	1833402-09	1,2,3-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-4-4	1833402-09	Toluene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-4-4	1833402-09	Diethyl ether	10/28/2018	2	Y	n	u		2.0	0.33	ug/L
MW-4-4	1833402-09	1,1,2,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-4-4	1833402-09	Propionitrile	10/28/2018	20	Y	n	u		20	6.2	ug/L
MW-4-4	1833402-09	Tetrachloroethene	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-4-4	1833402-09	1,3,5-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-4	1833402-09	Benzene	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-4-4	1833402-09	2-Nitropropane	10/28/2018	0	Y	y	v				ug/L

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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-4-4	1833402-09	Nitrobenzene	10/28/2018	0	Y	y	v				ug/L
MW-4-4	1833402-09	Methyl acrylate	10/28/2018	0	Y	y	v				ug/L
MW-4-4	1833402-09	1,1-Dichloropropanone	10/28/2018	0	Y	y	v				ug/L
MW-4-4	1833402-09	1-Chlorobutane	10/28/2018	0	Y	y	v				ug/L
MW-4-4	1833402-09	Chloroacetonitrile	10/28/2018	0	Y	y	v				ug/L
MW-4-4	1833402-09	o-Xylene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-4-4	1833402-09	Methyl methacrylate	10/28/2018	5	Y	n	u		5.0	1.2	ug/L
MW-4-4	1833402-09	Tetrahydrofuran	10/28/2018	20	Y	n	u		20	5.2	ug/L
MW-4-4	1833402-09	Ethyl methacrylate	10/28/2018	4	Y	n	u		4.0	1.3	ug/L
MW-4-4	1833402-09	Pentachloroethane	10/28/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-4-4	1833402-09	1,1,1,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-4-4	1833402-09	Methyl isobutyl ketone	10/28/2018	10	Y	n	u		10	2.4	ug/L
MW-4-4	1833402-09	Methyl iodide	10/28/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-4-4	1833402-09	Methyl ethyl ketone	10/28/2018	10	Y	n	u		10	3.3	ug/L
MW-4-4	1833402-09	Methacrylonitrile	10/28/2018	10	Y	n	u		10	2.3	ug/L
MW-4-4	1833402-09	2-Hexanone	10/28/2018	10	Y	n	u		10	5.0	ug/L
MW-4-4	1833402-09	Hexachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-4-4	1833402-09	Ethyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.32	ug/L
MW-4-4	1833402-09	p- & m-Xylenes	10/28/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-4-4	1833402-09	cis-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-4-4	1833402-09	Dibromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-4-4	1833402-09	1,2-Dibromo-3-chloropropane	10/28/2018	1	Y	n	u		1.0	0.89	ug/L
MW-4-4	1833402-09	1,2-Dibromoethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-4-4	1833402-09	Dibromomethane	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-4-4	1833402-09	1,2-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-4-4	1833402-09	1,3-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-4-4	1833402-09	1,4-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-4-4	1833402-09	trans-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-4-4	1833402-09	1,1-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-4-4	1833402-09	4-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-4-4	1833402-09	Hexachlorobutadiene	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-4-4	1833402-09	Dichlorodifluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-4-4	1833402-09	trans-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-4-4	1833402-09	1,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-4-4	1833402-09	1,3-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-4-4	1833402-09	2,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-4-4	1833402-09	1,1-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-4-4	1833402-09	cis-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-4	1833402-09	Styrene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-4-4	1833402-09	Acetone	10/28/2018	10	Y	n	u		10	6.6	ug/L
MW-4-4	1833402-09	Ethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-4-4	1833402-09	1,1-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-4-4	1833402-09	Methylene chloride	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-4-4	1833402-09	n-Propylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-4-4	1833402-09	Naphthalene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-4-4	1833402-09	1,2-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-4-4	1833402-09	Methyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-4	1833402-09	2-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-4	1833402-09	p-Isopropyltoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-4	1833402-09	Isopropylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-4-4	1833402-09	Bromobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-4-4	1833402-09	Bromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-4-4	1833402-09	Bromodichloromethane	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-4-4	1833402-09	Bromoform	10/28/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-4-4	1833402-09	Bromomethane	10/28/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-4-4	1833402-09	Chlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-4	1833402-09	Chloromethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-4-4	1833402-09	Chloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-4-4	1833402-09	Carbon tetrachloride	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-4-4	1833402-09	tert-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-4-4	1833402-09	sec-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-4-4	1833402-09	n-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-4-4	1833402-09	Chloroform	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-5	1833402-08	1,1-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-4-5	1833402-08	1,2-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-4-5	1833402-08	p-Isopropyltoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-5	1833402-08	1,1-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-4-5	1833402-08	1,1-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-4-5	1833402-08	cis-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-4-5	1833402-08	trans-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-4-5	1833402-08	1,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-4-5	1833402-08	1,3-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-4-5	1833402-08	2,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-4-5	1833402-08	cis-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-5	1833402-08	trans-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L

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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-4-5	1833402-08	Ethylbenzene	10/28/2018	0.17	Y	y	v j		0.50	0.15	ug/L
MW-4-5	1833402-08	Methyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-5	1833402-08	Isopropylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-5	1833402-08	Naphthalene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-4-5	1833402-08	Methylene chloride	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-4-5	1833402-08	n-Propylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-4-5	1833402-08	Styrene	10/28/2018	0.16	Y	y	v j		0.50	0.12	ug/L
MW-4-5	1833402-08	Dichlorodifluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-4-5	1833402-08	Hexachlorobutadiene	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-4-5	1833402-08	Chloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-4-5	1833402-08	Trichloroethene	10/28/2018	0.7	Y	y	v		0.50	0.19	ug/L
MW-4-5	1833402-08	1,1,1,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-4-5	1833402-08	Bromobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-4-5	1833402-08	Bromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-4-5	1833402-08	Benzene	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-4-5	1833402-08	Bromoform	10/28/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-4-5	1833402-08	Bromomethane	10/28/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-4-5	1833402-08	n-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-4-5	1833402-08	sec-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-4-5	1833402-08	tert-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-4-5	1833402-08	Bromodichloromethane	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-4-5	1833402-08	Chlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-5	1833402-08	1,4-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-4-5	1833402-08	Chloroform	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-5	1833402-08	Chloromethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L

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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-4-5	1833402-08	2-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-5	1833402-08	4-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-4-5	1833402-08	Dibromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-4-5	1833402-08	1,2-Dibromo-3-chloropropane	10/28/2018	1	Y	n	u		1.0	0.89	ug/L
MW-4-5	1833402-08	1,2-Dibromoethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-4-5	1833402-08	Dibromomethane	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-4-5	1833402-08	1,2-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-4-5	1833402-08	1,3-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-4-5	1833402-08	Carbon tetrachloride	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-4-5	1833402-08	o-Xylene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-4-5	1833402-08	Ethyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.32	ug/L
MW-4-5	1833402-08	Hexachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-4-5	1833402-08	2-Hexanone	10/28/2018	10	Y	n	u		10	5.0	ug/L
MW-4-5	1833402-08	Methacrylonitrile	10/28/2018	10	Y	n	u		10	2.3	ug/L
MW-4-5	1833402-08	Methyl ethyl ketone	10/28/2018	10	Y	n	u		10	3.3	ug/L
MW-4-5	1833402-08	Methyl iodide	10/28/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-4-5	1833402-08	Methyl isobutyl ketone	10/28/2018	10	Y	n	u		10	2.4	ug/L
MW-4-5	1833402-08	Methyl methacrylate	10/28/2018	5	Y	n	u		5.0	1.2	ug/L
MW-4-5	1833402-08	Ethyl methacrylate	10/28/2018	4	Y	n	u		4.0	1.3	ug/L
MW-4-5	1833402-08	p- & m-Xylenes	10/28/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-4-5	1833402-08	Pentachloroethane	10/28/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-4-5	1833402-08	Chloroacetonitrile	10/28/2018	0	Y	y	v				ug/L
MW-4-5	1833402-08	1-Chlorobutane	10/28/2018	0	Y	y	v				ug/L
MW-4-5	1833402-08	1,1-Dichloropropanone	10/28/2018	0	Y	y	v				ug/L
MW-4-5	1833402-08	Methyl acrylate	10/28/2018	0	Y	y	v				ug/L

SDG: 1833402

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-4-5	1833402-08	Nitrobenzene	10/28/2018	0	Y	y	v				ug/L
MW-4-5	1833402-08	2-Nitropropane	10/28/2018	0	Y	y	v				ug/L
MW-4-5	1833402-08	1,1,1-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-4-5	1833402-08	1,1,2,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-4-5	1833402-08	Propionitrile	10/28/2018	20	Y	n	u		20	6.2	ug/L
MW-4-5	1833402-08	1,2,4-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-4-5	1833402-08	Toluene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-4-5	1833402-08	Tetrahydrofuran	10/28/2018	20	Y	n	u		20	5.2	ug/L
MW-4-5	1833402-08	Diethyl ether	10/28/2018	2	Y	n	u		2.0	0.33	ug/L
MW-4-5	1833402-08	1,2,4-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-4-5	1833402-08	1,1,2-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-4-5	1833402-08	Trichlorofluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-5	1833402-08	1,1,2-Trichloro-1,2,2-trifluoroethane	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-4-5	1833402-08	1,2,3-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-4-5	1833402-08	Tetrachloroethene	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-4-5	1833402-08	1,3,5-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-4-5	1833402-08	t-Butyl alcohol	10/28/2018	10	Y	n	u		10	9.4	ug/L
MW-4-5	1833402-08	Vinyl chloride	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-4-5	1833402-08	Acetone	10/28/2018	10	Y	n	u		10	6.6	ug/L
MW-4-5	1833402-08	Acrylonitrile	10/28/2018	5	Y	n	u		5.0	1.5	ug/L
MW-4-5	1833402-08	Allyl chloride	10/28/2018	5	Y	n	u		5.0	0.47	ug/L
MW-4-5	1833402-08	t-Amyl Methyl ether	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-4-5	1833402-08	1,2,3-Trichloropropane	10/28/2018	1	Y	n	u		1.0	0.78	ug/L
MW-4-5	1833402-08	Carbon disulfide	10/28/2018	1	Y	n	u		1.0	0.48	ug/L
MW-4-5	1833402-08	trans-1,4-Dichloro-2-butene	10/28/2018	5	Y	n	u		5.0	1.8	ug/L

SDG: 1833402

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
TB-6-102318	1833402-01	Ethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-6-102318	1833402-01	trans-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
TB-6-102318	1833402-01	cis-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-6-102318	1833402-01	1,1-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
TB-6-102318	1833402-01	2,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
TB-6-102318	1833402-01	cis-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
TB-6-102318	1833402-01	trans-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-6-102318	1833402-01	Hexachlorobutadiene	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
TB-6-102318	1833402-01	1,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-6-102318	1833402-01	1,3-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
TB-6-102318	1833402-01	Isopropylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-6-102318	1833402-01	p-Isopropyltoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-6-102318	1833402-01	Methylene chloride	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
TB-6-102318	1833402-01	Methyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-6-102318	1833402-01	Naphthalene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
TB-6-102318	1833402-01	n-Propylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
TB-6-102318	1833402-01	Styrene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
TB-6-102318	1833402-01	1,1,2,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-6-102318	1833402-01	Toluene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-6-102318	1833402-01	1,1-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
TB-6-102318	1833402-01	Bromomethane	10/28/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
TB-6-102318	1833402-01	Tetrachloroethene	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
TB-6-102318	1833402-01	1,1,1,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
TB-6-102318	1833402-01	Chloromethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
TB-6-102318	1833402-01	Bromobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L



SDG: 1833402

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
TB-6-102318	1833402-01	Bromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
TB-6-102318	1833402-01	Bromodichloromethane	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
TB-6-102318	1833402-01	Bromoform	10/28/2018	0.5	Y	n	u		0.50	0.46	ug/L
TB-6-102318	1833402-01	2-Hexanone	10/28/2018	10	Y	n	u		10	5.0	ug/L
TB-6-102318	1833402-01	n-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-6-102318	1833402-01	1,2,3-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
TB-6-102318	1833402-01	tert-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
TB-6-102318	1833402-01	Carbon tetrachloride	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-6-102318	1833402-01	Chlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-6-102318	1833402-01	sec-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
TB-6-102318	1833402-01	Chloroform	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-6-102318	1833402-01	1,2-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-6-102318	1833402-01	2-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-6-102318	1833402-01	4-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.093	ug/L
TB-6-102318	1833402-01	Dibromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
TB-6-102318	1833402-01	1,2-Dibromo-3-chloropropane	10/28/2018	1	Y	n	u		1.0	0.89	ug/L
TB-6-102318	1833402-01	1,2-Dibromoethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
TB-6-102318	1833402-01	Dibromomethane	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
TB-6-102318	1833402-01	1,2-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
TB-6-102318	1833402-01	1,3-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
TB-6-102318	1833402-01	1,4-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-6-102318	1833402-01	Dichlorodifluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-6-102318	1833402-01	1,1-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-6-102318	1833402-01	Chloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-6-102318	1833402-01	o-Xylene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L

SDG: 1833402

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
TB-6-102318	1833402-01	Methacrylonitrile	10/28/2018	10	Y	n	u		10	2.3	ug/L
TB-6-102318	1833402-01	Methyl ethyl ketone	10/28/2018	10	Y	n	u		10	3.3	ug/L
TB-6-102318	1833402-01	Methyl iodide	10/28/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
TB-6-102318	1833402-01	Methyl isobutyl ketone	10/28/2018	10	Y	n	u		10	2.4	ug/L
TB-6-102318	1833402-01	1,2,4-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-6-102318	1833402-01	Pentachloroethane	10/28/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
TB-6-102318	1833402-01	Ethyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.32	ug/L
TB-6-102318	1833402-01	Hexachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
TB-6-102318	1833402-01	p- & m-Xylenes	10/28/2018	0.5	Y	n	u		0.50	0.34	ug/L
TB-6-102318	1833402-01	Methyl methacrylate	10/28/2018	5	Y	n	u		5.0	1.2	ug/L
TB-6-102318	1833402-01	Chloroacetonitrile	10/28/2018	0	Y	y	v				ug/L
TB-6-102318	1833402-01	1-Chlorobutane	10/28/2018	0	Y	y	v				ug/L
TB-6-102318	1833402-01	1,1-Dichloropropanone	10/28/2018	0	Y	y	v				ug/L
TB-6-102318	1833402-01	Methyl acrylate	10/28/2018	0	Y	y	v				ug/L
TB-6-102318	1833402-01	Nitrobenzene	10/28/2018	0	Y	y	v				ug/L
TB-6-102318	1833402-01	2-Nitropropane	10/28/2018	0	Y	y	v				ug/L
TB-6-102318	1833402-01	Benzene	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
TB-6-102318	1833402-01	Tetrahydrofuran	10/28/2018	20	Y	n	u		20	5.2	ug/L
TB-6-102318	1833402-01	Trichlorofluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-6-102318	1833402-01	1,1,1-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
TB-6-102318	1833402-01	Propionitrile	10/28/2018	20	Y	n	u		20	6.2	ug/L
TB-6-102318	1833402-01	Trichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
TB-6-102318	1833402-01	Ethyl methacrylate	10/28/2018	4	Y	n	u		4.0	1.3	ug/L
TB-6-102318	1833402-01	1,2,3-Trichloropropane	10/28/2018	1	Y	n	u		1.0	0.78	ug/L
TB-6-102318	1833402-01	1,1,2-Trichloro-1,2,2-trifluoroethane	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L

SDG: 1833402

<b>Analytical Method</b>		EPA-524.2									
<b>Sample ID</b>	<b>Lab Sample ID</b>	<b>Chemical Name</b>	<b>Anal Date</b>	<b>Result</b>	<b>Report</b>	<b>Detect</b>	<b>Lab Qual</b>	<b>Val Qual</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
TB-6-102318	1833402-01	1,2,4-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-6-102318	1833402-01	1,3,5-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-6-102318	1833402-01	Acetone	10/28/2018	10	Y	n	u		10	6.6	ug/L
TB-6-102318	1833402-01	Acrylonitrile	10/28/2018	5	Y	n	u		5.0	1.5	ug/L
TB-6-102318	1833402-01	Allyl chloride	10/28/2018	5	Y	n	u		5.0	0.47	ug/L
TB-6-102318	1833402-01	t-Amyl Methyl ether	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
TB-6-102318	1833402-01	t-Butyl alcohol	10/28/2018	10	Y	n	u		10	9.4	ug/L
TB-6-102318	1833402-01	Carbon disulfide	10/28/2018	1	Y	n	u		1.0	0.48	ug/L
TB-6-102318	1833402-01	trans-1,4-Dichloro-2-butene	10/28/2018	5	Y	n	u		5.0	1.8	ug/L
TB-6-102318	1833402-01	Diethyl ether	10/28/2018	2	Y	n	u		2.0	0.33	ug/L
TB-6-102318	1833402-01	Vinyl chloride	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
TB-6-102318	1833402-01	1,1,2-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L

<b>Analytical Method</b>		EPA-7196									
<b>Sample ID</b>	<b>Lab Sample ID</b>	<b>Chemical Name</b>	<b>Anal Date</b>	<b>Result</b>	<b>Report</b>	<b>Detect</b>	<b>Lab Qual</b>	<b>Val Qual</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
DUP-5-4Q18	1833402-05	Hexavalent Chromium	10/24/2018	0.0036	Y	y	v		0.0020	0.0007	mg/L
EB-6-102318	1833402-13	Hexavalent Chromium	10/23/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
MW-23-1	1833402-07	Hexavalent Chromium	10/24/2018	0.0016	Y	y	v j		0.0020	0.0007	mg/L
MW-23-2	1833402-06	Hexavalent Chromium	10/24/2018	0.0017	Y	y	v j		0.0020	0.0007	mg/L
MW-23-3	1833402-04	Hexavalent Chromium	10/24/2018	0.0037	Y	y	v		0.0020	0.0007	mg/L
MW-23-4	1833402-03	Hexavalent Chromium	10/24/2018	0.0039	Y	y	v		0.0020	0.0007	mg/L
MW-23-5	1833402-02	Hexavalent Chromium	10/24/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
MW-4-1	1833402-12	Hexavalent Chromium	10/23/2018	#####	Y	y	v j		0.0020	0.0007	mg/L
MW-4-2	1833402-11	Hexavalent Chromium	10/23/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
MW-4-3	1833402-10	Hexavalent Chromium	10/24/2018	0.002	Y	n	u		0.0020	0.0007	mg/L

SDG: 1833402

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<b>Analytical Method</b>											
EPA-7196											
<b>Sample ID</b>	<b>Lab Sample ID</b>	<b>Chemical Name</b>	<b>Anal Date</b>	<b>Result</b>	<b>Report</b>	<b>Detect</b>	<b>Lab Qual</b>	<b>Val Qual</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
MW-4-4	1833402-09	Hexavalent Chromium	10/24/2018	0.0009	Y	y	v j		0.0020	0.0007	mg/L
MW-4-5	1833402-08	Hexavalent Chromium	10/24/2018	0.002	Y	n	u		0.0020	0.0007	mg/L

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** NASA JPL, 4Q2018

**LDC Report Date:** December 18, 2018

**Parameters:** Volatiles

**Validation Level:** Level III

**Laboratory:** BC Laboratories, Inc.

**Sample Delivery Group (SDG):** 1833531

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
TB-7-102418	1833531-01	Water	10/24/18
MW-11-5	1833531-02	Water	10/24/18
MW-11-4	1833531-03	Water	10/24/18
MW-11-3	1833531-04	Water	10/24/18
MW-11-2	1833531-05	Water	10/24/18
MW-11-1	1833531-06	Water	10/24/18
MW-26-2	1833531-07	Water	10/24/18
DUP-6-4Q18	1833531-08	Water	10/24/18
MW-26-1	1833531-09	Water	10/24/18
EB-7-102418	1833531-10	Water	10/24/18
MW-15	1833531-11	Water	10/24/18
MW-1	1833531-12	Water	10/24/18
MW-9	1833531-13	Water	10/24/18
MW-15MS	1833531-11MS	Water	10/24/18
MW-15MSD	1833531-11MSD	Water	10/24/18
MW-1MS	1833531-12MS	Water	10/24/18
MW-1MSD	1833531-12MSD	Water	10/24/18
MW-9MS	1833531-13MS	Water	10/24/18
MW-9MSD	1833531-13MSD	Water	10/24/18

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) Method 524.2

All sample results were subjected to Level III data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated due to non-conformances discovered during data validation.
- U (Non-detected): The compound or analyte was analyzed for and positively identified by the laboratory; however the compound or analyte should be considered non-detected at the reported concentration due to the presence of contaminants detected in the associated blank(s).
- UJ (Non-detected estimated): The compound or analyte was reported as not detected by the laboratory; however the reported quantitation/detection limit is estimated due to non-conformances discovered during data validation.
- R (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

## III. Initial Calibration and Initial Calibration Verification

An initial calibration was performed as required by the method.

For compounds where average relative response factors (RRFs) were utilized, the percent relative standard deviations (%RSD) were less than or equal to 20.0%

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination ( $r^2$ ) were greater than or equal to 0.990.

Average relative response factors (RRF) for all compounds were within validation criteria.

The percent differences (%D) of the initial calibration verification (ICV) standard were less than or equal to 30.0% for all compounds.

## IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

The percent differences (%D) were less than or equal to 30.0% for all compounds with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
10/27/18 (27OCT02)	Bromomethane	39.6	MW-15	UJ (all non-detects)	P
10/27/18 (27OCT03)	Methyl iodide	52.9	MW-15	UJ (all non-detects)	P
10/28/18 (27OCT32)	Bromomethane	33.4	MW-1	UJ (all non-detects)	P

Date	Compound	%D	Associated Samples	Flag	A or P
10/28/18 (27OCT33)	Methyl iodide Pentachloroethane	66.4 80.6	MW-1	UJ (all non-detects) UJ (all non-detects)	P
10/28/18 (27OCT62)	Bromomethane	64.9	TB-7-102418 MW-11-5 MW-11-4 MW-11-3 MW-11-2 MW-11-1 MW-26-2 DUP-6-4Q18 MW-26-1 EB-7-102418 MW-9	UJ (all non-detects)	P
10/28/18 (27OCT63)	trans-1,4-Dichloro-2-butene Methyl iodide Pentachloroethane	34.5 62.1 98.5	TB-7-102418 MW-11-5 MW-11-4 MW-11-3 MW-11-2 MW-11-1 MW-26-2 DUP-6-4Q18 MW-26-1 EB-7-102418 MW-9	UJ (all non-detects) UJ (all non-detects) UJ (all non-detects)	P

## V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## VI. Field Blanks

Sample TB-7-102418 was identified as a trip blank. No contaminants were found.

Sample EB-7-102418 was identified as an equipment blank. No contaminants were found.

## VII. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## VIII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.



## IX. Laboratory Control Samples

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## X. Field Duplicates

Samples MW-26-2 and DUP-6-4Q18 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/L)		RPD
	MW-26-2	DUP-6-4Q18	
Chloroform	1.9	1.6	17
Tetrachloroethene	1.9	1.4	30

## XI. Internal Standards

All internal standard areas and retention times were within QC limits.

## XII. Compound Quantitation

Raw data were not reviewed for Level III validation.

## XIII. Target Compound Identifications

Raw data were not reviewed for Level III validation.

## XIV. System Performance

Raw data were not reviewed for Level III validation.

## XV. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to continuing calibration %D, data were qualified as estimated in thirteen samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the data validation all other results are considered valid and usable for all purposes.

**NASA JPL, 4Q2018**  
**Volatiles - Data Qualification Summary - SDG 1833531**

Sample	Compound	Flag	A or P	Reason
MW-15	Bromomethane Methyl iodide	UJ (all non-detects) UJ (all non-detects)	P	Continuing calibration (%D)
MW-1	Bromomethane Methyl iodide Pentachloroethane	UJ (all non-detects) UJ (all non-detects) UJ (all non-detects)	P	Continuing calibration (%D)
TB-7-102418 MW-11-5 MW-11-4 MW-11-3 MW-11-2 MW-11-1 MW-26-2 DUP-6-4Q18 MW-26-1 EB-7-102418 MW-9	Bromomethane trans-1,4-Dichloro-2-butene Methyl iodide Pentachloroethane	UJ (all non-detects) UJ (all non-detects) UJ (all non-detects) UJ (all non-detects)	P	Continuing calibration (%D)

**NASA JPL, 4Q2018**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 1833531**

No Sample Data Qualified in this SDG

LDC #: 43795B1

**VALIDATION COMPLETENESS WORKSHEET**

SDG #: 1833531

Level III

Laboratory: BC Laboratories, Inc.

Date: 11/18

Page: 1 of 2

Reviewer: [Signature]

2nd Reviewer: [Signature]

**METHOD:** GC/MS Volatiles (EPA Method 524.2)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A	
II.	GC/MS Instrument performance check	A	
III.	Initial calibration/ICV	A, A	RSD ≤ 20%, Y <sup>2</sup>   CV ≤ 30%
IV.	Continuing calibration	W	CV ≤ 30%
V.	Laboratory Blanks	A	
VI.	Field blanks	ND	TB = 1. EB = 10
VII.	Surrogate spikes	A	
VIII.	Matrix spike/Matrix spike duplicates	A	
IX.	Laboratory control samples	A	LES
X.	Field duplicates	W	D = T + 0
XI.	Internal standards	A	
XII.	Compound quantitation RL/LOQ/LODs	N	
XIII.	Target compound identification	N	
XIV.	System performance	N	
XV.	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB = Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	TB-7-102418	1833531-01	Water	10/24/18
2	MW-11-5	1833531-02	Water	10/24/18
3	MW-11-4	1833531-03	Water	10/24/18
4	MW-11-3	1833531-04	Water	10/24/18
5	MW-11-2	1833531-05	Water	10/24/18
6	MW-11-1	1833531-06	Water	10/24/18
7	MW-26-2	1833531-07	Water	10/24/18
8	DUP-6-4Q18	1833531-08	Water	10/24/18
9	MW-26-1	1833531-09	Water	10/24/18
10	EB-7-102418	1833531-10	Water	10/24/18
11	MW-15	1833531-11	Water	10/24/18
12	MW-1	1833531-12	Water	10/24/18
13	MW-9	1833531-13	Water	10/24/18

LDC #: 43795B1  
SDG #: 1833531  
Laboratory: BC Laboratories, Inc.

**VALIDATION COMPLETENESS WORKSHEET**  
Level III

Date: 11/18  
Page: 2 of 2  
Reviewer: [Signature]  
2nd Reviewer: [Signature]

**METHOD:** GC/MS Volatiles (EPA Method 524.2)

	Client ID	Lab ID	Matrix	Date
14	MW-15MS	1833531-11MS	Water	10/24/18
15	MW-15MSD	1833531-11MSD	Water	10/24/18
16	MW-1MS	1833531-12MS	Water	10/24/18
17	MW-1MSD	1833531-12MSD	Water	10/24/18
18	MW-9MS	1833531-13MS	Water	10/24/18
19	MW-9MSD	1833531-13MSD	Water	10/24/18
20				
21				
22				

Notes:


## TARGET COMPOUND WORKSHEET

### METHOD: VOA

A. Chloromethane	AA. Tetrachloroethene	AAA. 1,3,5-Trimethylbenzene	AAAA. Ethyl tert-butyl ether	A1. 1,3-Butadiene
B. Bromomethane	BB. 1,1,2,2-Tetrachloroethane	BBB. 4-Chlorotoluene	BBBB. tert-Amyl methyl ether	B1. Hexane
C. Vinyl chloride	CC. Toluene	CCC. tert-Butylbenzene	CCCC. 1-Chlorohexane	C1. Heptane
D. Chloroethane	DD. Chlorobenzene	DDD. 1,2,4-Trimethylbenzene	DDDD. Isopropyl alcohol	D1. Propylene
E. Methylene chloride	EE. Ethylbenzene	EEE. sec-Butylbenzene	EEEE. Acetonitrile	E1. Freon 11
F. Acetone	FF. Styrene	FFF. 1,3-Dichlorobenzene	FFFF. Acrolein	F1. Freon 12
G. Carbon disulfide	GG. Xylenes, total	GGG. p-Isopropyltoluene	GGGG. Acrylonitrile	G1. Freon 113
H. 1,1-Dichloroethene	HH. Vinyl acetate	HHH. 1,4-Dichlorobenzene	HHHH. 1,4-Dioxane	H1. Freon 114
I. 1,1-Dichloroethane	II. 2-Chloroethylvinyl ether	III. n-Butylbenzene	IIII. Isobutyl alcohol	I1. 2-Nitropropane
J. 1,2-Dichloroethene, total	JJ. Dichlorodifluoromethane	JJJ. 1,2-Dichlorobenzene	JJJJ. Methacrylonitrile	J1. Dimethyl disulfide
K. Chloroform	KK. Trichlorofluoromethane	KKK. 1,2,4-Trichlorobenzene	KKKK. Propionitrile	K1. 2,3-Dimethyl pentane
L. 1,2-Dichloroethane	LL. Methyl-tert-butyl ether	LLL. Hexachlorobutadiene	LLLL. Ethyl ether	L1. 2,4-Dimethyl pentane
M. 2-Butanone	MM. 1,2-Dibromo-3-chloropropane	MMM. Naphthalene	MMMM. Benzyl chloride	M1. 3,3-Dimethyl pentane
N. 1,1,1-Trichloroethane	NN. Methyl ethyl ketone	NNN. 1,2,3-Trichlorobenzene	NNNN. Iodomethane	N1. 2-Methylpentane
O. Carbon tetrachloride	OO. 2,2-Dichloropropane	OOO. 1,3,5-Trichlorobenzene	OOOO. 1,1-Difluoroethane	O1. 3-Methylpentane
P. Bromodichloromethane	PP. Bromochloromethane	PPP. trans-1,2-Dichloroethene	PPPP. Tetrahydrofuran	P1. 3-Ethylpentane
Q. 1,2-Dichloropropane	QQ. 1,1-Dichloropropene	QQQ. cis-1,2-Dichloroethene	QQQQ. Methyl acetate	Q1. 2,2-Dimethylpentane
R. cis-1,3-Dichloropropene	RR. Dibromomethane	RRR. m,p-Xylenes	RRRR. Ethyl acetate	R1. 2,2,3- Trimethylbutane
S. Trichloroethene	SS. 1,3-Dichloropropane	SSS. o-Xylene	SSSS. Cyclohexane	S1. 2,2,4-Trimethylpentane
T. Dibromochloromethane	TT. 1,2-Dibromoethane	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	TTTT. Methylcyclohexane	T1. 2-Methylhexane
U. 1,1,2-Trichloroethane	UU. 1,1,1,2-Tetrachloroethane	UUU. 1,2-Dichlorotetrafluoroethane	UUUU. Allyl chloride	U1. Nonanal
V. Benzene	VV. Isopropylbenzene	VVV. 4-Ethyltoluene	VVVV. Methyl methacrylate	V1. 2-Methylnaphthalene
W. trans-1,3-Dichloropropene	WW. Bromobenzene	WWW. Ethanol	WWWWW. Ethyl methacrylate	W1. Methanol
X. Bromoform	XX. 1,2,3-Trichloropropane	XXX. Di-isopropyl ether	XXXX. cis-1,4-Dichloro-2-butene	X1. 1,2,3-Trimethylbenzene
Y. 4-Methyl-2-pentanone	YY. n-Propylbenzene	YYY. tert-Butanol	YYYY. trans-1,4-Dichloro-2-butene	Y1. 2-Propanol
Z. 2-Hexanone	ZZ. 2-Chlorotoluene	ZZZ. tert-Butyl alcohol	ZZZZ. Pentachloroethane	Z1. <i>Methyl iodide</i>



LDC#: 43795B

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

Page: 1 of 1  
Reviewer: [Signature]  
2nd Reviewer: [Signature]

**METHOD:** GCMS VOA (EPA Method 524.2)

Compound	Concentration (ug/L)		RPD
	7	8	
K	1.9	1.6	17
AA	1.9	1.4	30

V:\FIELD DUPLICATES\Field Duplicates\FD\_Organics\2018\43795B1\_JPL.wpd

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** NASA JPL, 4Q2018  
**LDC Report Date:** December 18, 2018  
**Parameters:** Chromium  
**Validation Level:** Level III  
**Laboratory:** BC Laboratories, Inc.  
**Sample Delivery Group (SDG):** 1833531

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-11-5	1833531-02	Water	10/24/18
MW-11-4	1833531-03	Water	10/24/18
MW-11-3	1833531-04	Water	10/24/18
MW-11-2	1833531-05	Water	10/24/18
MW-11-1	1833531-06	Water	10/24/18
MW-26-2	1833531-07	Water	10/24/18
DUP-6-4Q18	1833531-08	Water	10/24/18
MW-26-1	1833531-09	Water	10/24/18
EB-7-102418	1833531-10	Water	10/24/18
MW-15	1833531-11	Water	10/24/18
MW-1	1833531-12	Water	10/24/18
MW-9	1833531-13	Water	10/24/18
MW-15MS	1833531-11MS	Water	10/24/18
MW-15MSD	1833531-11MSD	Water	10/24/18
MW-15DUP	1833531-11DUP	Water	10/24/18
MW-9MS	1833531-13MS	Water	10/24/18
MW-9MSD	1833531-13MSD	Water	10/24/18
MW-9DUP	1833531-13DUP	Water	10/24/18



## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with a modified outline of the USEPA National Functional Guidelines (NFG) for Inorganic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Chromium by Environmental Protection Agency (EPA) Method 200.8

All sample results were subjected to Level III data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated due to non-conformances discovered during data validation.
- U (Non-detected): The compound or analyte was analyzed for and positively identified by the laboratory; however the compound or analyte should be considered non-detected at the reported concentration due to the presence of contaminants detected in the associated blank(s).
- UJ (Non-detected estimated): The compound or analyte was reported as not detected by the laboratory; however the reported quantitation/detection limit is estimated due to non-conformances discovered during data validation.
- R (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition.

All technical holding time requirements were met.

## **II. ICPMS Tune**

The mass calibration was within 0.1 AMU and the percent relative standard deviation (%RSD) was less than or equal to 5%.

## **III. Instrument Calibration**

Initial and continuing calibrations were performed as required by the method.

The initial calibration verification (ICV) and continuing calibration verification (CCV) standards were within QC limits.

## **IV. ICP Interference Check Sample Analysis**

ICP interference check sample analysis data were not required by the method.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **VI. Field Blanks**

Sample EB-7-102418 was identified as an equipment blank. No contaminants were found.

## **VII. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **VIII. Duplicate Sample Analysis**

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **IX. Serial Dilution**

Serial dilution was not performed for this SDG.

## **X. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **XI. Field Duplicates**

Samples MW-26-2 and DUP-6-4Q18 were identified as field duplicates. No results were detected in any of the samples.

## **XII. Internal Standards (ICP-MS)**

Raw data were not reviewed for Level III validation.

## **XIII. Sample Result Verification**

Raw data were not reviewed for Level III validation.

## **XIV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

The quality control criteria reviewed were met and are considered acceptable. Based upon the data validation all results are considered valid and usable for all purposes.

**NASA JPL, 4Q2018**  
**Chromium - Data Qualification Summary - SDG 1833531**

No Sample Data Qualified in this SDG

**NASA JPL, 4Q2018**  
**Chromium - Laboratory Blank Data Qualification Summary - SDG 1833531**

No Sample Data Qualified in this SDG

LDC #: 43795B4a

**VALIDATION COMPLETENESS WORKSHEET**

Date: 12-14-18

SDG #: 1833531

Level III

Page: 1 of 2

Laboratory: BC Laboratories, Inc.

Reviewer: MG

2nd Reviewer: **METHOD:** Chromium (EPA Method 200.8)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A	
II.	ICP/MS Tune	A	
III.	Instrument Calibration	A	
IV.	ICP Interference Check Sample (ICS) Analysis	N	not required
V.	Laboratory Blanks	A	
VI.	Field Blanks	ND	EB=9
VII.	Matrix Spike/Matrix Spike Duplicates	A	MS/MSD
VIII.	Duplicate sample analysis	A	DUP
IX.	Serial Dilution	N	not performed
X.	Laboratory control samples	A	LCS
XI.	Field Duplicates	ND	D=6+7
XII.	Internal Standard (ICP-MS)	N	not reviewed for Level III
XIII.	Sample Result Verification	N	
XIV.	Overall Assessment of Data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	MW-11-5	1833531-02	Water	10/24/18
2	MW-11-4	1833531-03	Water	10/24/18
3	MW-11-3	1833531-04	Water	10/24/18
4	MW-11-2	1833531-05	Water	10/24/18
5	MW-11-1	1833531-06	Water	10/24/18
6	MW-26-2	1833531-07	Water	10/24/18
7	DUP-6-4Q18	1833531-08	Water	10/24/18
8	MW-26-1	1833531-09	Water	10/24/18
9	EB-7-102418	1833531-10	Water	10/24/18
10	MW-15	1833531-11	Water	10/24/18
11	MW-1	1833531-12	Water	10/24/18
12	MW-9	1833531-13	Water	10/24/18
13	MW-15MS	1833531-11MS	Water	10/24/18
14	MW-15MSD	1833531-11MSD	Water	10/24/18
15	MW-15DUP	1833531-11DUP	Water	10/24/18

LDC #: 43795B4a

# VALIDATION COMPLETENESS WORKSHEET

Date: 12-14-18

SDG #: 1833531

Level III

Page: 2 of 2

Laboratory: BC Laboratories, Inc.

Reviewer: MG

2nd Reviewer: [Signature]

**METHOD:** Chromium (EPA Method 200.8)

	Client ID	Lab ID	Matrix	Date
16	2 MW-9MS	1833531-13MS	Water	10/24/18
17	2 MW-9MSD	1833531-13MSD	Water	10/24/18
18	2 MW-9DUP	1833531-13DUP	Water	10/24/18
19				
20	1 PBW1			
21	2 PBW2			

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** NASA JPL, 4Q2018

**LDC Report Date:** December 18, 2018

**Parameters:** Wet Chemistry

**Validation Level:** Level III

**Laboratory:** BC Laboratories, Inc.

**Sample Delivery Group (SDG):** 1833531

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-11-5	1833531-02	Water	10/24/18
MW-11-4	1833531-03	Water	10/24/18
MW-11-3	1833531-04	Water	10/24/18
MW-11-2	1833531-05	Water	10/24/18
MW-11-1	1833531-06	Water	10/24/18
MW-26-2	1833531-07	Water	10/24/18
DUP-6-4Q18	1833531-08	Water	10/24/18
MW-26-1	1833531-09	Water	10/24/18
EB-7-102418	1833531-10	Water	10/24/18
MW-15	1833531-11	Water	10/24/18
MW-1	1833531-12	Water	10/24/18
MW-9	1833531-13	Water	10/24/18
MW-11-1MS	1833531-06MS	Water	10/24/18
MW-11-1MSD	1833531-06MSD	Water	10/24/18
MW-11-1DUP	1833531-06DUP	Water	10/24/18
MW-15MS	1833531-11MS	Water	10/24/18
MW-15MSD	1833531-11MSD	Water	10/24/18
MW-15DUP	1833531-11DUP	Water	10/24/18
MW-1MS	1833531-12MS	Water	10/24/18
MW-1MSD	1833531-12MSD	Water	10/24/18
MW-1DUP	1833531-12DUP	Water	10/24/18
MW-9MS	1833531-13MS	Water	10/24/18
MW-9MSD	1833531-13MSD	Water	10/24/18
MW-9DUP	1833531-13DUP	Water	10/24/18

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with a modified outline of the USEPA National Functional Guidelines (NFG) for Inorganic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following methods:

Hexavalent Chromium by Environmental Protection Agency (EPA) SW 846 Method 7196

Perchlorate by EPA Method 314.0

Chloride, Sulfate, and Nitrate as Nitrogen by EPA Method 300.0

Nitrite as Nitrogen by EPA Method 353.2

Ortho-Phosphate as Phosphorus by EPA Method 365.1

All sample results were subjected to Level III data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated due to non-conformances discovered during data validation.
- U (Non-detected): The compound or analyte was analyzed for and positively identified by the laboratory; however the compound or analyte should be considered non-detected at the reported concentration due to the presence of contaminants detected in the associated blank(s).
- UJ (Non-detected estimated): The compound or analyte was reported as not detected by the laboratory; however the reported quantitation/detection limit is estimated due to non-conformances discovered during data validation.
- R (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.



## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition.

All technical holding time requirements were met.

## **II. Initial Calibration**

All criteria for the initial calibration of each method were met.

## **III. Continuing Calibration**

Continuing calibration frequency and analysis criteria were met for each method when applicable.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the methods. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

Sample EB-7-102418 was identified as an equipment blank. No contaminants were found.

## **VI. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **VII. Duplicate Sample Analysis**

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the methods. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

Samples MW-26-2 and DUP-6-4Q18 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Analyte	Concentration		RPD
	MW-26-2	DUP-6-4Q18	
Hexavalent chromium	0.0011 mg/L	0.0014 mg/L	24
Perchlorate	3.1 ug/L	3.2 ug/L	3

## X. Sample Result Verification

Raw data were not reviewed for Level III validation.

## XI. Overall Assessment of Data

The analysis was conducted within all specifications of the methods. No results were rejected in this SDG.

The quality control criteria reviewed were met and are considered acceptable. Based upon the data validation all results are considered valid and usable for all purposes.

**NASA JPL, 4Q2018**  
**Wet Chemistry - Data Qualification Summary - SDG 1833531**

No Sample Data Qualified in this SDG

**NASA JPL, 4Q2018**  
**Wet Chemistry - Laboratory Blank Data Qualification Summary - SDG 1833531**

No Sample Data Qualified in this SDG

LDC #: 43795B6

**VALIDATION COMPLETENESS WORKSHEET**

Date: 12-14-18

SDG #: 1833531

Level III

Page: 1 of 2

Laboratory: BC Laboratories, Inc.

Reviewer: MG

2nd Reviewer: [Signature]

**METHOD: (Analyte)** Hexavalent Chromium (EPA SW846 Method 7196), Perchlorate (EPA Method 314.0), Chloride, Sulfate, Nitrate as N (EPA Method 300.0), Nitrite as N (EPA Method 353.2), ortho-Phosphate as P (EPA Method 365.1), ~~Hexavalent Chromium (EPA SW 846 Method 7196)~~

gmh

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A	
II	Initial calibration	A	
III.	Calibration verification	A	
IV	Laboratory Blanks	A	
V	Field blanks	ND	EB=9
VI.	Matrix Spike/Matrix Spike Duplicates	A	MS/MSD
VII.	Duplicate sample analysis	A	DUP
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	SW	D=6+7
X.	Sample result verification	N	
XI	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	MW-11-5	1833531-02	Water	10/24/18
2	MW-11-4	1833531-03	Water	10/24/18
3	MW-11-3	1833531-04	Water	10/24/18
4	MW-11-2	1833531-05	Water	10/24/18
5	MW-11-1	1833531-06	Water	10/24/18
6	MW-26-2	1833531-07	Water	10/24/18
7	DUP-6-4Q18	1833531-08	Water	10/24/18
8	MW-26-1	1833531-09	Water	10/24/18
9	EB-7-102418	1833531-10	Water	10/24/18
10	MW-15	1833531-11	Water	10/24/18
11	MW-1	1833531-12	Water	10/24/18
12	MW-9	1833531-13	Water	10/24/18
13	MW-11-1MS	1833531-06MS	Water	10/24/18
14	MW-11-1MSD	1833531-06MSD	Water	10/24/18
15	MW-11-1DUP	1833531-06DUP	Water	10/24/18
16	MW-15MS	1833531-11MS	Water	10/24/18

LDC #: 43795B6

# VALIDATION COMPLETENESS WORKSHEET

Date: 12-14-18

SDG #: 1833531

Level III

Page: 2 of 2

Laboratory: BC Laboratories, Inc.

Reviewer: MG

2nd Reviewer: [Signature]

**METHOD: (Analyte)** Hexavalent Chromium (EPA SW846 Method 7196), Perchlorate (EPA Method 314.0), Chloride, Sulfate, Nitrate as N (EPA Method 300.0), Nitrite as N (EPA Method 353.2), ortho-Phosphate as P (EPA Method 365.1), Hexavalent Chromium (EPA SW 846 Method 7196)

	Client ID	Lab ID	Matrix	Date
17	MW-15MSD	1833531-11MSD	Water	10/24/18
18	MW-15DUP	1833531-11DUP	Water	10/24/18
19	MW-1MS	1833531-12MS	Water	10/24/18
20	MW-1MSD	1833531-12MSD	Water	10/24/18
21	MW-1DUP	1833531-12DUP	Water	10/24/18
22	MW-9MS	1833531-13MS	Water	10/24/18
23	MW-9MSD	1833531-13MSD	Water	10/24/18
24	MW-9DUP	1833531-13DUP	Water	10/24/18
25				
26				
27				

Notes: PBW 1  
PBW 2  
PBW 3



**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

Inorganics, Method See Cover

Analyte	Concentration (mg/L)		RPD	
	6	7		
Hexavalent Chromium	0.0011	0.0014	24	
Perchlorate (ug/L)	3.1	3.2	3	

V:\FIELD DUPLICATES\Field Duplicates\FD\_inorganic\2018\43795B6.WPD

## NASA JPL, 4Q2018 - LDC# 43795

SDG: 1833531

Analytical Method		EPA-200.8									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
DUP-6-4Q18	1833531-08	Total Recoverable Chromium	10/31/2018	3	Y	n	u		3.0	0.50	ug/L
EB-7-102418	1833531-10	Total Recoverable Chromium	10/31/2018	3	Y	n	u		3.0	0.50	ug/L
MW-1	1833531-12	Total Recoverable Chromium	11/1/2018	0.68	Y	y	v j		3.0	0.50	ug/L
MW-11-1	1833531-06	Total Recoverable Chromium	10/31/2018	3	Y	n	u		3.0	0.50	ug/L
MW-11-2	1833531-05	Total Recoverable Chromium	10/31/2018	3	Y	n	u		3.0	0.50	ug/L
MW-11-3	1833531-04	Total Recoverable Chromium	10/31/2018	0.83	Y	y	v j		3.0	0.50	ug/L
MW-11-4	1833531-03	Total Recoverable Chromium	10/31/2018	3	Y	n	u		3.0	0.50	ug/L
MW-11-5	1833531-02	Total Recoverable Chromium	10/31/2018	1.3	Y	y	v j		3.0	0.50	ug/L
MW-15	1833531-11	Total Recoverable Chromium	10/31/2018	19	Y	y	v		3.0	0.50	ug/L
MW-26-1	1833531-09	Total Recoverable Chromium	10/31/2018	3	Y	n	u		3.0	0.50	ug/L
MW-26-2	1833531-07	Total Recoverable Chromium	10/31/2018	3	Y	n	u		3.0	0.50	ug/L
MW-9	1833531-13	Total Recoverable Chromium	10/31/2018	130	Y	y	v		3.0	0.50	ug/L

Analytical Method		EPA-300.0									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-11-1	1833531-06	Chloride	10/25/2018	25	Y	y	v		0.50	0.077	mg/L
MW-11-1	1833531-06	Nitrate as N	10/25/2018	1.1	Y	y	v		0.10	0.021	mg/L
MW-11-1	1833531-06	Sulfate	10/25/2018	45	Y	y	v		1.0	0.13	mg/L

Analytical Method		EPA-314.0									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
DUP-6-4Q18	1833531-08	Perchlorate	11/5/2018	3.2	Y	y	v j		4.0	0.92	ug/L
EB-7-102418	1833531-10	Perchlorate	11/5/2018	4	Y	n	u		4.0	0.92	ug/L
MW-1	1833531-12	Perchlorate	11/5/2018	4	Y	n	u		4.0	0.92	ug/L
MW-11-1	1833531-06	Perchlorate	11/3/2018	4	Y	n	u		4.0	0.92	ug/L



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<b>Analytical Method</b>		EPA-314.0									
<b>Sample ID</b>	<b>Lab Sample ID</b>	<b>Chemical Name</b>	<b>Anal Date</b>	<b>Result</b>	<b>Report</b>	<b>Detect</b>	<b>Lab Qual</b>	<b>Val Qual</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
MW-11-2	1833531-05	Perchlorate	11/3/2018	4	Y	n	u		4.0	0.92	ug/L
MW-11-3	1833531-04	Perchlorate	11/3/2018	4	Y	n	u		4.0	0.92	ug/L
MW-11-4	1833531-03	Perchlorate	11/3/2018	4	Y	n	u		4.0	0.92	ug/L
MW-11-5	1833531-02	Perchlorate	11/3/2018	4	Y	n	u		4.0	0.92	ug/L
MW-15	1833531-11	Perchlorate	11/3/2018	4	Y	n	u		4.0	0.92	ug/L
MW-26-1	1833531-09	Perchlorate	11/5/2018	2.5	Y	y	v j		4.0	0.92	ug/L
MW-26-2	1833531-07	Perchlorate	11/3/2018	3.1	Y	y	v j		4.0	0.92	ug/L
MW-9	1833531-13	Perchlorate	11/5/2018	4	Y	n	u		4.0	0.92	ug/L

<b>Analytical Method</b>		EPA-353.2									
<b>Sample ID</b>	<b>Lab Sample ID</b>	<b>Chemical Name</b>	<b>Anal Date</b>	<b>Result</b>	<b>Report</b>	<b>Detect</b>	<b>Lab Qual</b>	<b>Val Qual</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
MW-11-1	1833531-06	Nitrite as N	10/25/2018	0.011	Y	y	v j		0.050	0.010	mg/L

<b>Analytical Method</b>		EPA-365.1									
<b>Sample ID</b>	<b>Lab Sample ID</b>	<b>Chemical Name</b>	<b>Anal Date</b>	<b>Result</b>	<b>Report</b>	<b>Detect</b>	<b>Lab Qual</b>	<b>Val Qual</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
MW-11-1	1833531-06	ortho-Phosphate as P	10/25/2018	0.018	Y	y	v j		0.050	0.017	mg/L

<b>Analytical Method</b>		EPA-524.2									
<b>Sample ID</b>	<b>Lab Sample ID</b>	<b>Chemical Name</b>	<b>Anal Date</b>	<b>Result</b>	<b>Report</b>	<b>Detect</b>	<b>Lab Qual</b>	<b>Val Qual</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
DUP-6-4Q18	1833531-08	Carbon tetrachloride	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-6-4Q18	1833531-08	tert-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
DUP-6-4Q18	1833531-08	Tetrahydrofuran	10/28/2018	20	Y	n	u		20	5.2	ug/L
DUP-6-4Q18	1833531-08	Chloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-6-4Q18	1833531-08	sec-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
DUP-6-4Q18	1833531-08	Chlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-6-4Q18	1833531-08	n-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-6-4Q18	1833531-08	Methyl acrylate	10/28/2018	0	Y	y	v				ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
DUP-6-4Q18	1833531-08	1,1-Dichloropropanone	10/28/2018	0	Y	y	v				ug/L
DUP-6-4Q18	1833531-08	1-Chlorobutane	10/28/2018	0	Y	y	v				ug/L
DUP-6-4Q18	1833531-08	Chloroacetonitrile	10/28/2018	0	Y	y	v				ug/L
DUP-6-4Q18	1833531-08	p- & m-Xylenes	10/28/2018	0.5	Y	n	u		0.50	0.34	ug/L
DUP-6-4Q18	1833531-08	Propionitrile	10/28/2018	20	Y	n	u		20	6.2	ug/L
DUP-6-4Q18	1833531-08	Chloroform	10/28/2018	1.6	Y	y	v		0.50	0.14	ug/L
DUP-6-4Q18	1833531-08	cis-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
DUP-6-4Q18	1833531-08	o-Xylene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
DUP-6-4Q18	1833531-08	1,4-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-6-4Q18	1833531-08	2-Nitropropane	10/28/2018	0	Y	y	v				ug/L
DUP-6-4Q18	1833531-08	Nitrobenzene	10/28/2018	0	Y	y	v				ug/L
DUP-6-4Q18	1833531-08	1,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-6-4Q18	1833531-08	trans-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-6-4Q18	1833531-08	1,1-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
DUP-6-4Q18	1833531-08	Pentachloroethane	10/28/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
DUP-6-4Q18	1833531-08	1,2-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-6-4Q18	1833531-08	Dichlorodifluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-6-4Q18	1833531-08	Chloromethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
DUP-6-4Q18	1833531-08	1,2-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
DUP-6-4Q18	1833531-08	Dibromomethane	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
DUP-6-4Q18	1833531-08	1,2-Dibromoethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
DUP-6-4Q18	1833531-08	1,2-Dibromo-3-chloropropane	10/28/2018	1	Y	n	u		1.0	0.89	ug/L
DUP-6-4Q18	1833531-08	Dibromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
DUP-6-4Q18	1833531-08	4-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.093	ug/L
DUP-6-4Q18	1833531-08	2-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
DUP-6-4Q18	1833531-08	1,1-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-6-4Q18	1833531-08	cis-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-6-4Q18	1833531-08	1,2,3-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
DUP-6-4Q18	1833531-08	Toluene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-6-4Q18	1833531-08	Tetrachloroethene	10/28/2018	1.4	Y	y	v		0.50	0.23	ug/L
DUP-6-4Q18	1833531-08	1,1,2,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-6-4Q18	1833531-08	1,1,1,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
DUP-6-4Q18	1833531-08	Styrene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
DUP-6-4Q18	1833531-08	n-Propylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
DUP-6-4Q18	1833531-08	Naphthalene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
DUP-6-4Q18	1833531-08	Methyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-6-4Q18	1833531-08	Methylene chloride	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
DUP-6-4Q18	1833531-08	p-Isopropyltoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-6-4Q18	1833531-08	1,2,4-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-6-4Q18	1833531-08	Ethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-6-4Q18	1833531-08	Hexachlorobutadiene	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
DUP-6-4Q18	1833531-08	1,1-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
DUP-6-4Q18	1833531-08	2,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
DUP-6-4Q18	1833531-08	1,3-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
DUP-6-4Q18	1833531-08	Bromomethane	10/28/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
DUP-6-4Q18	1833531-08	Bromoform	10/28/2018	0.5	Y	n	u		0.50	0.46	ug/L
DUP-6-4Q18	1833531-08	Bromodichloromethane	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
DUP-6-4Q18	1833531-08	Methyl methacrylate	10/28/2018	5	Y	n	u		5.0	1.2	ug/L
DUP-6-4Q18	1833531-08	1,3-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
DUP-6-4Q18	1833531-08	Bromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L

SDG: 1833531

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
DUP-6-4Q18	1833531-08	Benzene	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
DUP-6-4Q18	1833531-08	Bromobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-6-4Q18	1833531-08	Isopropylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-6-4Q18	1833531-08	trans-1,4-Dichloro-2-butene	10/28/2018	5	Y	n	u	UJ	5.0	1.8	ug/L
DUP-6-4Q18	1833531-08	Methyl ethyl ketone	10/28/2018	10	Y	n	u		10	3.3	ug/L
DUP-6-4Q18	1833531-08	Methyl iodide	10/28/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
DUP-6-4Q18	1833531-08	Methacrylonitrile	10/28/2018	10	Y	n	u		10	2.3	ug/L
DUP-6-4Q18	1833531-08	2-Hexanone	10/28/2018	10	Y	n	u		10	5.0	ug/L
DUP-6-4Q18	1833531-08	trans-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
DUP-6-4Q18	1833531-08	Methyl isobutyl ketone	10/28/2018	10	Y	n	u		10	2.4	ug/L
DUP-6-4Q18	1833531-08	Hexachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
DUP-6-4Q18	1833531-08	Ethyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.32	ug/L
DUP-6-4Q18	1833531-08	Diethyl ether	10/28/2018	2	Y	n	u		2.0	0.33	ug/L
DUP-6-4Q18	1833531-08	Carbon disulfide	10/28/2018	1	Y	n	u		1.0	0.48	ug/L
DUP-6-4Q18	1833531-08	t-Butyl alcohol	10/28/2018	10	Y	n	u		10	9.4	ug/L
DUP-6-4Q18	1833531-08	t-Amyl Methyl ether	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
DUP-6-4Q18	1833531-08	1,2,4-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-6-4Q18	1833531-08	Trichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
DUP-6-4Q18	1833531-08	Trichlorofluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-6-4Q18	1833531-08	1,2,3-Trichloropropane	10/28/2018	1	Y	n	u		1.0	0.78	ug/L
DUP-6-4Q18	1833531-08	Ethyl methacrylate	10/28/2018	4	Y	n	u		4.0	1.3	ug/L
DUP-6-4Q18	1833531-08	1,1,1-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
DUP-6-4Q18	1833531-08	Allyl chloride	10/28/2018	5	Y	n	u		5.0	0.47	ug/L
DUP-6-4Q18	1833531-08	1,1,2-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
DUP-6-4Q18	1833531-08	1,1,2-Trichloro-1,2,2-trifluoroethane	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L

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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
DUP-6-4Q18	1833531-08	1,3,5-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-6-4Q18	1833531-08	Vinyl chloride	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
DUP-6-4Q18	1833531-08	Acetone	10/28/2018	10	Y	n	u		10	6.6	ug/L
DUP-6-4Q18	1833531-08	Acrylonitrile	10/28/2018	5	Y	n	u		5.0	1.5	ug/L
EB-7-102418	1833531-10	Methylene chloride	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
EB-7-102418	1833531-10	Styrene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
EB-7-102418	1833531-10	Ethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-7-102418	1833531-10	1,1,2,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-7-102418	1833531-10	Tetrachloroethene	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
EB-7-102418	1833531-10	1,1,1,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
EB-7-102418	1833531-10	n-Propylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
EB-7-102418	1833531-10	Methyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-7-102418	1833531-10	p-Isopropyltoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-7-102418	1833531-10	Toluene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-7-102418	1833531-10	Vinyl chloride	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
EB-7-102418	1833531-10	Isopropylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-7-102418	1833531-10	Hexachlorobutadiene	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
EB-7-102418	1833531-10	Naphthalene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
EB-7-102418	1833531-10	1,1,2-Trichloro-1,2,2-trifluoroethane	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
EB-7-102418	1833531-10	t-Amyl Methyl ether	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
EB-7-102418	1833531-10	n-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-7-102418	1833531-10	trans-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
EB-7-102418	1833531-10	Allyl chloride	10/28/2018	5	Y	n	u		5.0	0.47	ug/L
EB-7-102418	1833531-10	Acrylonitrile	10/28/2018	5	Y	n	u		5.0	1.5	ug/L
EB-7-102418	1833531-10	Acetone	10/28/2018	10	Y	n	u		10	6.6	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
EB-7-102418	1833531-10	1,2,4-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-7-102418	1833531-10	1,3,5-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-7-102418	1833531-10	1,2,3-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
EB-7-102418	1833531-10	1,2,3-Trichloropropane	10/28/2018	1	Y	n	u		1.0	0.78	ug/L
EB-7-102418	1833531-10	Trichlorofluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-7-102418	1833531-10	Trichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
EB-7-102418	1833531-10	1,1,2-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
EB-7-102418	1833531-10	1,1,1-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
EB-7-102418	1833531-10	1,2,4-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-7-102418	1833531-10	t-Butyl alcohol	10/28/2018	10	Y	n	u		10	9.4	ug/L
EB-7-102418	1833531-10	Bromoform	10/28/2018	0.5	Y	n	u		0.50	0.46	ug/L
EB-7-102418	1833531-10	4-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.093	ug/L
EB-7-102418	1833531-10	Chloromethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
EB-7-102418	1833531-10	Chloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-7-102418	1833531-10	Chlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-7-102418	1833531-10	Carbon tetrachloride	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-7-102418	1833531-10	tert-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
EB-7-102418	1833531-10	Bromomethane	10/28/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
EB-7-102418	1833531-10	1,2-Dibromoethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
EB-7-102418	1833531-10	Bromodichloromethane	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
EB-7-102418	1833531-10	Bromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
EB-7-102418	1833531-10	Bromobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-7-102418	1833531-10	Benzene	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
EB-7-102418	1833531-10	Carbon disulfide	10/28/2018	1	Y	n	u		1.0	0.48	ug/L
EB-7-102418	1833531-10	2-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L

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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
EB-7-102418	1833531-10	sec-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
EB-7-102418	1833531-10	1,1-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-7-102418	1833531-10	1,1-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
EB-7-102418	1833531-10	2,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
EB-7-102418	1833531-10	1,3-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
EB-7-102418	1833531-10	1,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-7-102418	1833531-10	trans-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-7-102418	1833531-10	cis-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
EB-7-102418	1833531-10	Dibromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
EB-7-102418	1833531-10	1,2-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-7-102418	1833531-10	1,2-Dibromo-3-chloropropane	10/28/2018	1	Y	n	u		1.0	0.89	ug/L
EB-7-102418	1833531-10	Dichlorodifluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-7-102418	1833531-10	1,4-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-7-102418	1833531-10	1,3-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
EB-7-102418	1833531-10	1,2-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
EB-7-102418	1833531-10	Dibromomethane	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
EB-7-102418	1833531-10	cis-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-7-102418	1833531-10	1,1-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
EB-7-102418	1833531-10	2-Nitropropane	10/28/2018	0	Y	y	v				ug/L
EB-7-102418	1833531-10	trans-1,4-Dichloro-2-butene	10/28/2018	5	Y	n	u	UJ	5.0	1.8	ug/L
EB-7-102418	1833531-10	Chloroform	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-7-102418	1833531-10	Nitrobenzene	10/28/2018	0	Y	y	v				ug/L
EB-7-102418	1833531-10	Methyl acrylate	10/28/2018	0	Y	y	v				ug/L
EB-7-102418	1833531-10	1,1-Dichloropropanone	10/28/2018	0	Y	y	v				ug/L
EB-7-102418	1833531-10	1-Chlorobutane	10/28/2018	0	Y	y	v				ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
EB-7-102418	1833531-10	Chloroacetonitrile	10/28/2018	0	Y	y	v				ug/L
EB-7-102418	1833531-10	o-Xylene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
EB-7-102418	1833531-10	p- & m-Xylenes	10/28/2018	0.5	Y	n	u		0.50	0.34	ug/L
EB-7-102418	1833531-10	Tetrahydrofuran	10/28/2018	20	Y	n	u		20	5.2	ug/L
EB-7-102418	1833531-10	Propionitrile	10/28/2018	20	Y	n	u		20	6.2	ug/L
EB-7-102418	1833531-10	Ethyl methacrylate	10/28/2018	4	Y	n	u		4.0	1.3	ug/L
EB-7-102418	1833531-10	Methyl methacrylate	10/28/2018	5	Y	n	u		5.0	1.2	ug/L
EB-7-102418	1833531-10	Methyl isobutyl ketone	10/28/2018	10	Y	n	u		10	2.4	ug/L
EB-7-102418	1833531-10	Methyl iodide	10/28/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
EB-7-102418	1833531-10	Methyl ethyl ketone	10/28/2018	10	Y	n	u		10	3.3	ug/L
EB-7-102418	1833531-10	Methacrylonitrile	10/28/2018	10	Y	n	u		10	2.3	ug/L
EB-7-102418	1833531-10	2-Hexanone	10/28/2018	10	Y	n	u		10	5.0	ug/L
EB-7-102418	1833531-10	Hexachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
EB-7-102418	1833531-10	Ethyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.32	ug/L
EB-7-102418	1833531-10	Pentachloroethane	10/28/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
EB-7-102418	1833531-10	Diethyl ether	10/28/2018	2	Y	n	u		2.0	0.33	ug/L
MW-1	1833531-12	Methyl iodide	10/28/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-1	1833531-12	Benzene	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-1	1833531-12	Bromobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-1	1833531-12	Bromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-1	1833531-12	Bromodichloromethane	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-1	1833531-12	Bromoform	10/28/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-1	1833531-12	Bromomethane	10/28/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-1	1833531-12	sec-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-1	1833531-12	trans-1,4-Dichloro-2-butene	10/28/2018	5	Y	n	u		5.0	1.8	ug/L



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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-1	1833531-12	n-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-1	1833531-12	1,4-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-1	1833531-12	Dichlorodifluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-1	1833531-12	1,1-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-1	1833531-12	1,2-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-1	1833531-12	1,1-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-1	1833531-12	Propionitrile	10/28/2018	20	Y	n	u		20	6.2	ug/L
MW-1	1833531-12	Methyl isobutyl ketone	10/28/2018	10	Y	n	u		10	2.4	ug/L
MW-1	1833531-12	Methacrylonitrile	10/28/2018	10	Y	n	u		10	2.3	ug/L
MW-1	1833531-12	tert-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-1	1833531-12	Chloroacetonitrile	10/28/2018	0	Y	y	v				ug/L
MW-1	1833531-12	Tetrahydrofuran	10/28/2018	20	Y	n	u		20	5.2	ug/L
MW-1	1833531-12	1-Chlorobutane	10/28/2018	0	Y	y	v				ug/L
MW-1	1833531-12	1,2-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-1	1833531-12	Dibromomethane	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-1	1833531-12	1,2-Dibromoethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-1	1833531-12	1,2-Dibromo-3-chloropropane	10/28/2018	1	Y	n	u		1.0	0.89	ug/L
MW-1	1833531-12	1,3-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-1	1833531-12	Dibromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-1	1833531-12	4-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-1	1833531-12	p- & m-Xylenes	10/28/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-1	1833531-12	1,1-Dichloropropanone	10/28/2018	0	Y	y	v				ug/L
MW-1	1833531-12	Methyl ethyl ketone	10/28/2018	10	Y	n	u		10	3.3	ug/L
MW-1	1833531-12	Carbon tetrachloride	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-1	1833531-12	2-Hexanone	10/28/2018	10	Y	n	u		10	5.0	ug/L

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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-1	1833531-12	Methyl acrylate	10/28/2018	0	Y	y	v				ug/L
MW-1	1833531-12	Nitrobenzene	10/28/2018	0	Y	y	v				ug/L
MW-1	1833531-12	2-Nitropropane	10/28/2018	0	Y	y	v				ug/L
MW-1	1833531-12	2-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-1	1833531-12	Chloromethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-1	1833531-12	Chloroform	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-1	1833531-12	Chloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-1	1833531-12	Chlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-1	1833531-12	o-Xylene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-1	1833531-12	1,2,4-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-1	1833531-12	Naphthalene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-1	1833531-12	n-Propylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-1	1833531-12	cis-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-1	1833531-12	1,1,1,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-1	1833531-12	Methyl methacrylate	10/28/2018	5	Y	n	u		5.0	1.2	ug/L
MW-1	1833531-12	Tetrachloroethene	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-1	1833531-12	Toluene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-1	1833531-12	1,2,3-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-1	1833531-12	1,2,4-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-1	1833531-12	1,1,1-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-1	1833531-12	1,1,2-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-1	1833531-12	Trichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-1	1833531-12	Trichlorofluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-1	1833531-12	Methyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-1	1833531-12	t-Amyl Methyl ether	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-1	1833531-12	Hexachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-1	1833531-12	Ethyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.32	ug/L
MW-1	1833531-12	Ethyl methacrylate	10/28/2018	4	Y	n	u		4.0	1.3	ug/L
MW-1	1833531-12	Diethyl ether	10/28/2018	2	Y	n	u		2.0	0.33	ug/L
MW-1	1833531-12	Pentachloroethane	10/28/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-1	1833531-12	1,2,3-Trichloropropane	10/28/2018	1	Y	n	u		1.0	0.78	ug/L
MW-1	1833531-12	t-Butyl alcohol	10/28/2018	10	Y	n	u		10	9.4	ug/L
MW-1	1833531-12	1,1,2-Trichloro-1,2,2-trifluoroethane	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-1	1833531-12	Allyl chloride	10/28/2018	5	Y	n	u		5.0	0.47	ug/L
MW-1	1833531-12	Acrylonitrile	10/28/2018	5	Y	n	u		5.0	1.5	ug/L
MW-1	1833531-12	Acetone	10/28/2018	10	Y	n	u		10	6.6	ug/L
MW-1	1833531-12	Vinyl chloride	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-1	1833531-12	1,3,5-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-1	1833531-12	Styrene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-1	1833531-12	Carbon disulfide	10/28/2018	1	Y	n	u		1.0	0.48	ug/L
MW-1	1833531-12	Isopropylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-1	1833531-12	trans-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-1	1833531-12	1,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-1	1833531-12	1,3-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-1	1833531-12	2,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-1	1833531-12	1,1-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-1	1833531-12	cis-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-1	1833531-12	trans-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-1	1833531-12	1,1,2,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-1	1833531-12	Hexachlorobutadiene	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L

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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-1	1833531-12	Methylene chloride	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-1	1833531-12	p-Isopropyltoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-1	1833531-12	Ethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-11-1	1833531-06	1,2-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-11-1	1833531-06	Bromobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-11-1	1833531-06	Benzene	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-11-1	1833531-06	Hexachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-11-1	1833531-06	1,3-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-11-1	1833531-06	Bromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-11-1	1833531-06	1,1-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-11-1	1833531-06	1,2-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-11-1	1833531-06	1,1-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-11-1	1833531-06	cis-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-11-1	1833531-06	trans-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-11-1	1833531-06	1,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-11-1	1833531-06	1,3-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-11-1	1833531-06	1,4-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-11-1	1833531-06	Dichlorodifluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-11-1	1833531-06	Bromoform	10/28/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-11-1	1833531-06	n-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-11-1	1833531-06	sec-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-11-1	1833531-06	tert-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-11-1	1833531-06	Carbon tetrachloride	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-11-1	1833531-06	Chlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-11-1	1833531-06	Chloromethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-11-1	1833531-06	Chloroform	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-11-1	1833531-06	Bromomethane	10/28/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-11-1	1833531-06	4-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-11-1	1833531-06	Bromodichloromethane	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-11-1	1833531-06	Dibromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-11-1	1833531-06	1,2-Dibromo-3-chloropropane	10/28/2018	1	Y	n	u		1.0	0.89	ug/L
MW-11-1	1833531-06	1,2-Dibromoethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-11-1	1833531-06	Dibromomethane	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-11-1	1833531-06	Chloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-11-1	1833531-06	Methyl isobutyl ketone	10/28/2018	10	Y	n	u		10	2.4	ug/L
MW-11-1	1833531-06	Acrylonitrile	10/28/2018	5	Y	n	u		5.0	1.5	ug/L
MW-11-1	1833531-06	2,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-11-1	1833531-06	t-Amyl Methyl ether	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-11-1	1833531-06	Ethyl methacrylate	10/28/2018	4	Y	n	u		4.0	1.3	ug/L
MW-11-1	1833531-06	Carbon disulfide	10/28/2018	1	Y	n	u		1.0	0.48	ug/L
MW-11-1	1833531-06	trans-1,4-Dichloro-2-butene	10/28/2018	5	Y	n	u	UJ	5.0	1.8	ug/L
MW-11-1	1833531-06	Diethyl ether	10/28/2018	2	Y	n	u		2.0	0.33	ug/L
MW-11-1	1833531-06	2-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-11-1	1833531-06	Ethyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.32	ug/L
MW-11-1	1833531-06	2-Hexanone	10/28/2018	10	Y	n	u		10	5.0	ug/L
MW-11-1	1833531-06	Methacrylonitrile	10/28/2018	10	Y	n	u		10	2.3	ug/L
MW-11-1	1833531-06	Acetone	10/28/2018	10	Y	n	u		10	6.6	ug/L
MW-11-1	1833531-06	Methyl iodide	10/28/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-11-1	1833531-06	Allyl chloride	10/28/2018	5	Y	n	u		5.0	0.47	ug/L
MW-11-1	1833531-06	Methyl methacrylate	10/28/2018	5	Y	n	u		5.0	1.2	ug/L

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Analytical Method		EPA-524.2										
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units	
MW-11-1	1833531-06	Pentachloroethane	10/28/2018	2	Y	n	u	UJ	2.0	0.63	ug/L	
MW-11-1	1833531-06	Propionitrile	10/28/2018	20	Y	n	u		20	6.2	ug/L	
MW-11-1	1833531-06	Tetrahydrofuran	10/28/2018	20	Y	n	u		20	5.2	ug/L	
MW-11-1	1833531-06	p- & m-Xylenes	10/28/2018	0.5	Y	n	u		0.50	0.34	ug/L	
MW-11-1	1833531-06	o-Xylene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L	
MW-11-1	1833531-06	Chloroacetonitrile	10/28/2018	0	Y	y	v				ug/L	
MW-11-1	1833531-06	1-Chlorobutane	10/28/2018	0	Y	y	v				ug/L	
MW-11-1	1833531-06	1,1-Dichloropropanone	10/28/2018	0	Y	y	v				ug/L	
MW-11-1	1833531-06	Methyl acrylate	10/28/2018	0	Y	y	v				ug/L	
MW-11-1	1833531-06	Nitrobenzene	10/28/2018	0	Y	y	v				ug/L	
MW-11-1	1833531-06	2-Nitropropane	10/28/2018	0	Y	y	v				ug/L	
MW-11-1	1833531-06	Methyl ethyl ketone	10/28/2018	10	Y	n	u		10	3.3	ug/L	
MW-11-1	1833531-06	Styrene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L	
MW-11-1	1833531-06	1,1-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L	
MW-11-1	1833531-06	cis-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L	
MW-11-1	1833531-06	trans-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L	
MW-11-1	1833531-06	Ethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L	
MW-11-1	1833531-06	Hexachlorobutadiene	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L	
MW-11-1	1833531-06	Isopropylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L	
MW-11-1	1833531-06	p-Isopropyltoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L	
MW-11-1	1833531-06	Methylene chloride	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L	
MW-11-1	1833531-06	Methyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L	
MW-11-1	1833531-06	t-Butyl alcohol	10/28/2018	10	Y	n	u		10	9.4	ug/L	
MW-11-1	1833531-06	n-Propylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L	
MW-11-1	1833531-06	Vinyl chloride	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L	

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-11-1	1833531-06	1,1,1,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-11-1	1833531-06	Trichlorofluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-11-1	1833531-06	1,3,5-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-11-1	1833531-06	1,2,4-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-11-1	1833531-06	Naphthalene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-11-1	1833531-06	1,2,3-Trichloropropane	10/28/2018	1	Y	n	u		1.0	0.78	ug/L
MW-11-1	1833531-06	1,1,2,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-11-1	1833531-06	Trichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-11-1	1833531-06	1,1,2-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-11-1	1833531-06	1,1,1-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-11-1	1833531-06	1,2,4-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-11-1	1833531-06	1,2,3-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-11-1	1833531-06	Toluene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-11-1	1833531-06	Tetrachloroethene	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-11-1	1833531-06	1,1,2-Trichloro-1,2,2-trifluoroethane	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-11-2	1833531-05	Pentachloroethane	10/28/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-11-2	1833531-05	Naphthalene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-11-2	1833531-05	Methyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-11-2	1833531-05	Methylene chloride	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-11-2	1833531-05	p-Isopropyltoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-11-2	1833531-05	Isopropylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-11-2	1833531-05	Hexachlorobutadiene	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-11-2	1833531-05	trans-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-11-2	1833531-05	Dibromomethane	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-11-2	1833531-05	1,2-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L

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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-11-2	1833531-05	1,3-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-11-2	1833531-05	1,4-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-11-2	1833531-05	Dichlorodifluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-11-2	1833531-05	1,1-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-11-2	1833531-05	1,2-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-11-2	1833531-05	Tetrahydrofuran	10/28/2018	20	Y	n	u		20	5.2	ug/L
MW-11-2	1833531-05	cis-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-11-2	1833531-05	Dibromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-11-2	1833531-05	1,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-11-2	1833531-05	1,3-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-11-2	1833531-05	2,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-11-2	1833531-05	1,1-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-11-2	1833531-05	cis-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-11-2	1833531-05	trans-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-11-2	1833531-05	Ethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-11-2	1833531-05	1,1-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-11-2	1833531-05	tert-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-11-2	1833531-05	Acetone	10/28/2018	10	Y	n	u		10	6.6	ug/L
MW-11-2	1833531-05	Benzene	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-11-2	1833531-05	Bromobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-11-2	1833531-05	Bromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-11-2	1833531-05	Bromodichloromethane	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-11-2	1833531-05	Bromoform	10/28/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-11-2	1833531-05	Bromomethane	10/28/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-11-2	1833531-05	1,2-Dibromoethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L



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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-11-2	1833531-05	sec-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-11-2	1833531-05	1,2-Dibromo-3-chloropropane	10/28/2018	1	Y	n	u		1.0	0.89	ug/L
MW-11-2	1833531-05	Carbon tetrachloride	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-11-2	1833531-05	Chlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-11-2	1833531-05	Chloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-11-2	1833531-05	Chloroform	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-11-2	1833531-05	Chloromethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-11-2	1833531-05	2-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-11-2	1833531-05	4-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-11-2	1833531-05	Trichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-11-2	1833531-05	n-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-11-2	1833531-05	Nitrobenzene	10/28/2018	0	Y	y	v				ug/L
MW-11-2	1833531-05	1,1,1-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-11-2	1833531-05	Methyl methacrylate	10/28/2018	5	Y	n	u		5.0	1.2	ug/L
MW-11-2	1833531-05	Propionitrile	10/28/2018	20	Y	n	u		20	6.2	ug/L
MW-11-2	1833531-05	p- & m-Xylenes	10/28/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-11-2	1833531-05	o-Xylene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-11-2	1833531-05	Chloroacetonitrile	10/28/2018	0	Y	y	v				ug/L
MW-11-2	1833531-05	1-Chlorobutane	10/28/2018	0	Y	y	v				ug/L
MW-11-2	1833531-05	Methyl iodide	10/28/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-11-2	1833531-05	Methyl acrylate	10/28/2018	0	Y	y	v				ug/L
MW-11-2	1833531-05	Methyl ethyl ketone	10/28/2018	10	Y	n	u		10	3.3	ug/L
MW-11-2	1833531-05	2-Nitropropane	10/28/2018	0	Y	y	v				ug/L
MW-11-2	1833531-05	1,2,4-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-11-2	1833531-05	1,2,3-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-11-2	1833531-05	Toluene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-11-2	1833531-05	Tetrachloroethene	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-11-2	1833531-05	1,1,2,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-11-2	1833531-05	1,1,1,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-11-2	1833531-05	Styrene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-11-2	1833531-05	1,1-Dichloropropanone	10/28/2018	0	Y	y	v				ug/L
MW-11-2	1833531-05	t-Butyl alcohol	10/28/2018	10	Y	n	u		10	9.4	ug/L
MW-11-2	1833531-05	n-Propylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-11-2	1833531-05	Trichlorofluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-11-2	1833531-05	1,2,3-Trichloropropane	10/28/2018	1	Y	n	u		1.0	0.78	ug/L
MW-11-2	1833531-05	1,1,2-Trichloro-1,2,2-trifluoroethane	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-11-2	1833531-05	1,2,4-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-11-2	1833531-05	Vinyl chloride	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-11-2	1833531-05	Acrylonitrile	10/28/2018	5	Y	n	u		5.0	1.5	ug/L
MW-11-2	1833531-05	Methyl isobutyl ketone	10/28/2018	10	Y	n	u		10	2.4	ug/L
MW-11-2	1833531-05	t-Amyl Methyl ether	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-11-2	1833531-05	1,1,2-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-11-2	1833531-05	Carbon disulfide	10/28/2018	1	Y	n	u		1.0	0.48	ug/L
MW-11-2	1833531-05	trans-1,4-Dichloro-2-butene	10/28/2018	5	Y	n	u	UJ	5.0	1.8	ug/L
MW-11-2	1833531-05	Diethyl ether	10/28/2018	2	Y	n	u		2.0	0.33	ug/L
MW-11-2	1833531-05	Ethyl methacrylate	10/28/2018	4	Y	n	u		4.0	1.3	ug/L
MW-11-2	1833531-05	Ethyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.32	ug/L
MW-11-2	1833531-05	Hexachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-11-2	1833531-05	2-Hexanone	10/28/2018	10	Y	n	u		10	5.0	ug/L
MW-11-2	1833531-05	Methacrylonitrile	10/28/2018	10	Y	n	u		10	2.3	ug/L

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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-11-2	1833531-05	Allyl chloride	10/28/2018	5	Y	n	u		5.0	0.47	ug/L
MW-11-2	1833531-05	1,3,5-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-11-3	1833531-04	p- & m-Xylenes	10/28/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-11-3	1833531-04	Diethyl ether	10/28/2018	2	Y	n	u		2.0	0.33	ug/L
MW-11-3	1833531-04	Ethyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.32	ug/L
MW-11-3	1833531-04	2-Nitropropane	10/28/2018	0	Y	y	v				ug/L
MW-11-3	1833531-04	Nitrobenzene	10/28/2018	0	Y	y	v				ug/L
MW-11-3	1833531-04	Methyl acrylate	10/28/2018	0	Y	y	v				ug/L
MW-11-3	1833531-04	1,1-Dichloropropanone	10/28/2018	0	Y	y	v				ug/L
MW-11-3	1833531-04	1-Chlorobutane	10/28/2018	0	Y	y	v				ug/L
MW-11-3	1833531-04	Benzene	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-11-3	1833531-04	o-Xylene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-11-3	1833531-04	t-Amyl Methyl ether	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-11-3	1833531-04	Tetrahydrofuran	10/28/2018	20	Y	n	u		20	5.2	ug/L
MW-11-3	1833531-04	Propionitrile	10/28/2018	20	Y	n	u		20	6.2	ug/L
MW-11-3	1833531-04	Pentachloroethane	10/28/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-11-3	1833531-04	Methyl methacrylate	10/28/2018	5	Y	n	u		5.0	1.2	ug/L
MW-11-3	1833531-04	Methyl isobutyl ketone	10/28/2018	10	Y	n	u		10	2.4	ug/L
MW-11-3	1833531-04	Methyl iodide	10/28/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-11-3	1833531-04	Methyl ethyl ketone	10/28/2018	10	Y	n	u		10	3.3	ug/L
MW-11-3	1833531-04	Methacrylonitrile	10/28/2018	10	Y	n	u		10	2.3	ug/L
MW-11-3	1833531-04	Chloroacetonitrile	10/28/2018	0	Y	y	v				ug/L
MW-11-3	1833531-04	Chloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-11-3	1833531-04	Bromobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-11-3	1833531-04	Bromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-11-3	1833531-04	Bromodichloromethane	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-11-3	1833531-04	Bromoform	10/28/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-11-3	1833531-04	Bromomethane	10/28/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-11-3	1833531-04	n-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-11-3	1833531-04	sec-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-11-3	1833531-04	tert-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-11-3	1833531-04	Carbon disulfide	10/28/2018	1	Y	n	u		1.0	0.48	ug/L
MW-11-3	1833531-04	Chlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-11-3	1833531-04	t-Butyl alcohol	10/28/2018	10	Y	n	u		10	9.4	ug/L
MW-11-3	1833531-04	Chloroform	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-11-3	1833531-04	1,1,2-Trichloro-1,2,2-trifluoroethane	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-11-3	1833531-04	1,2,4-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-11-3	1833531-04	1,3,5-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-11-3	1833531-04	Vinyl chloride	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-11-3	1833531-04	Acetone	10/28/2018	10	Y	n	u		10	6.6	ug/L
MW-11-3	1833531-04	Acrylonitrile	10/28/2018	5	Y	n	u		5.0	1.5	ug/L
MW-11-3	1833531-04	Allyl chloride	10/28/2018	5	Y	n	u		5.0	0.47	ug/L
MW-11-3	1833531-04	1,2,3-Trichloropropane	10/28/2018	1	Y	n	u		1.0	0.78	ug/L
MW-11-3	1833531-04	Carbon tetrachloride	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-11-3	1833531-04	1,4-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-11-3	1833531-04	2-Hexanone	10/28/2018	10	Y	n	u		10	5.0	ug/L
MW-11-3	1833531-04	2,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-11-3	1833531-04	1,3-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-11-3	1833531-04	1,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-11-3	1833531-04	trans-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-11-3	1833531-04	cis-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-11-3	1833531-04	1,1-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-11-3	1833531-04	1,2-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-11-3	1833531-04	cis-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-11-3	1833531-04	Dichlorodifluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-11-3	1833531-04	trans-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-11-3	1833531-04	1,3-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-11-3	1833531-04	1,2-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-11-3	1833531-04	Dibromomethane	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-11-3	1833531-04	1,2-Dibromoethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-11-3	1833531-04	1,2-Dibromo-3-chloropropane	10/28/2018	1	Y	n	u		1.0	0.89	ug/L
MW-11-3	1833531-04	Dibromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-11-3	1833531-04	4-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-11-3	1833531-04	2-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-11-3	1833531-04	Chloromethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-11-3	1833531-04	1,1-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-11-3	1833531-04	1,1,1,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-11-3	1833531-04	trans-1,4-Dichloro-2-butene	10/28/2018	5	Y	n	u	UJ	5.0	1.8	ug/L
MW-11-3	1833531-04	Trichlorofluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-11-3	1833531-04	Trichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-11-3	1833531-04	1,1,2-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-11-3	1833531-04	1,1,1-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-11-3	1833531-04	1,2,4-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-11-3	1833531-04	1,2,3-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-11-3	1833531-04	Toluene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-11-3	1833531-04	1,1-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-11-3	1833531-04	1,1,2,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-11-3	1833531-04	Hexachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-11-3	1833531-04	Styrene	10/28/2018	0.4	Y	y	v j		0.50	0.12	ug/L
MW-11-3	1833531-04	n-Propylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-11-3	1833531-04	Naphthalene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-11-3	1833531-04	Methyl t-butyl ether	10/28/2018	0.38	Y	y	v j		0.50	0.14	ug/L
MW-11-3	1833531-04	Methylene chloride	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-11-3	1833531-04	p-Isopropyltoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-11-3	1833531-04	Isopropylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-11-3	1833531-04	Hexachlorobutadiene	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-11-3	1833531-04	Ethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-11-3	1833531-04	Tetrachloroethene	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-11-3	1833531-04	Ethyl methacrylate	10/28/2018	4	Y	n	u		4.0	1.3	ug/L
MW-11-4	1833531-03	sec-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-11-4	1833531-03	1,2-Dibromoethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-11-4	1833531-03	1,2-Dibromo-3-chloropropane	10/28/2018	1	Y	n	u		1.0	0.89	ug/L
MW-11-4	1833531-03	Dibromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-11-4	1833531-03	4-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-11-4	1833531-03	2-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-11-4	1833531-03	Chloromethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-11-4	1833531-03	Chloroform	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-11-4	1833531-03	Chlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-11-4	1833531-03	Tetrachloroethene	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-11-4	1833531-03	tert-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-11-4	1833531-03	1,3-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-11-4	1833531-03	n-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-11-4	1833531-03	Bromomethane	10/28/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-11-4	1833531-03	Bromoform	10/28/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-11-4	1833531-03	Bromodichloromethane	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-11-4	1833531-03	Bromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-11-4	1833531-03	Bromobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-11-4	1833531-03	Toluene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-11-4	1833531-03	trans-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-11-4	1833531-03	Carbon tetrachloride	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-11-4	1833531-03	Trichlorofluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-11-4	1833531-03	Ethyl methacrylate	10/28/2018	4	Y	n	u		4.0	1.3	ug/L
MW-11-4	1833531-03	Acetone	10/28/2018	10	Y	n	u		10	6.6	ug/L
MW-11-4	1833531-03	Vinyl chloride	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-11-4	1833531-03	1,3,5-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-11-4	1833531-03	cis-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-11-4	1833531-03	1,1-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-11-4	1833531-03	1,2-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-11-4	1833531-03	1,2,4-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-11-4	1833531-03	Dibromomethane	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-11-4	1833531-03	1,2,3-Trichloropropane	10/28/2018	1	Y	n	u		1.0	0.78	ug/L
MW-11-4	1833531-03	1,2-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-11-4	1833531-03	Trichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-11-4	1833531-03	1,1,2-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-11-4	1833531-03	1,1,1-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-11-4	1833531-03	1,2,4-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-11-4	1833531-03	1,1-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-11-4	1833531-03	Dichlorodifluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-11-4	1833531-03	1,2,3-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-11-4	1833531-03	1,4-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-11-4	1833531-03	Chloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-11-4	1833531-03	1,1,2-Trichloro-1,2,2-trifluoroethane	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-11-4	1833531-03	1,1,2,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-11-4	1833531-03	trans-1,4-Dichloro-2-butene	10/28/2018	5	Y	n	u	UJ	5.0	1.8	ug/L
MW-11-4	1833531-03	Diethyl ether	10/28/2018	2	Y	n	u		2.0	0.33	ug/L
MW-11-4	1833531-03	2-Nitropropane	10/28/2018	0	Y	y	v				ug/L
MW-11-4	1833531-03	Nitrobenzene	10/28/2018	0	Y	y	v				ug/L
MW-11-4	1833531-03	Methyl acrylate	10/28/2018	0	Y	y	v				ug/L
MW-11-4	1833531-03	1,1-Dichloropropanone	10/28/2018	0	Y	y	v				ug/L
MW-11-4	1833531-03	1-Chlorobutane	10/28/2018	0	Y	y	v				ug/L
MW-11-4	1833531-03	Chloroacetonitrile	10/28/2018	0	Y	y	v				ug/L
MW-11-4	1833531-03	o-Xylene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-11-4	1833531-03	Carbon disulfide	10/28/2018	1	Y	n	u		1.0	0.48	ug/L
MW-11-4	1833531-03	Tetrahydrofuran	10/28/2018	20	Y	n	u		20	5.2	ug/L
MW-11-4	1833531-03	Propionitrile	10/28/2018	20	Y	n	u		20	6.2	ug/L
MW-11-4	1833531-03	Pentachloroethane	10/28/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-11-4	1833531-03	Benzene	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-11-4	1833531-03	Methyl isobutyl ketone	10/28/2018	10	Y	n	u		10	2.4	ug/L
MW-11-4	1833531-03	Methyl iodide	10/28/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-11-4	1833531-03	Methyl ethyl ketone	10/28/2018	10	Y	n	u		10	3.3	ug/L



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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-11-4	1833531-03	Methacrylonitrile	10/28/2018	10	Y	n	u		10	2.3	ug/L
MW-11-4	1833531-03	2-Hexanone	10/28/2018	10	Y	n	u		10	5.0	ug/L
MW-11-4	1833531-03	Hexachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-11-4	1833531-03	Ethyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.32	ug/L
MW-11-4	1833531-03	p- & m-Xylenes	10/28/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-11-4	1833531-03	Methylene chloride	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-11-4	1833531-03	Methyl methacrylate	10/28/2018	5	Y	n	u		5.0	1.2	ug/L
MW-11-4	1833531-03	t-Butyl alcohol	10/28/2018	10	Y	n	u		10	9.4	ug/L
MW-11-4	1833531-03	1,1,1,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-11-4	1833531-03	Styrene	10/28/2018	0.12	Y	y	v j		0.50	0.12	ug/L
MW-11-4	1833531-03	n-Propylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-11-4	1833531-03	Methyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-11-4	1833531-03	p-Isopropyltoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-11-4	1833531-03	Isopropylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-11-4	1833531-03	Hexachlorobutadiene	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-11-4	1833531-03	Ethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-11-4	1833531-03	Acrylonitrile	10/28/2018	5	Y	n	u		5.0	1.5	ug/L
MW-11-4	1833531-03	t-Amyl Methyl ether	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-11-4	1833531-03	Naphthalene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-11-4	1833531-03	Allyl chloride	10/28/2018	5	Y	n	u		5.0	0.47	ug/L
MW-11-4	1833531-03	trans-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-11-4	1833531-03	1,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-11-4	1833531-03	1,3-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-11-4	1833531-03	cis-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-11-4	1833531-03	2,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-11-4	1833531-03	1,1-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-11-5	1833531-02	2-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-11-5	1833531-02	4-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-11-5	1833531-02	Dibromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-11-5	1833531-02	1,2-Dibromo-3-chloropropane	10/28/2018	1	Y	n	u		1.0	0.89	ug/L
MW-11-5	1833531-02	1,2-Dibromoethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-11-5	1833531-02	Dibromomethane	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-11-5	1833531-02	1,4-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-11-5	1833531-02	1,3-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-11-5	1833531-02	Chloromethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-11-5	1833531-02	1,1-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-11-5	1833531-02	1,2-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-11-5	1833531-02	Dichlorodifluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-11-5	1833531-02	Bromobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-11-5	1833531-02	1,2-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-11-5	1833531-02	Chloroform	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-11-5	1833531-02	Chloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-11-5	1833531-02	Chlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-11-5	1833531-02	Carbon tetrachloride	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-11-5	1833531-02	tert-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-11-5	1833531-02	sec-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-11-5	1833531-02	n-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-11-5	1833531-02	Bromomethane	10/28/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-11-5	1833531-02	Bromoform	10/28/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-11-5	1833531-02	Bromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L

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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-11-5	1833531-02	Benzene	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-11-5	1833531-02	1,2,4-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-11-5	1833531-02	1,1-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-11-5	1833531-02	Bromodichloromethane	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-11-5	1833531-02	Diethyl ether	10/28/2018	2	Y	n	u		2.0	0.33	ug/L
MW-11-5	1833531-02	1,2,3-Trichloropropane	10/28/2018	1	Y	n	u		1.0	0.78	ug/L
MW-11-5	1833531-02	Nitrobenzene	10/28/2018	0	Y	y	v				ug/L
MW-11-5	1833531-02	Methyl acrylate	10/28/2018	0	Y	y	v				ug/L
MW-11-5	1833531-02	1,1-Dichloropropanone	10/28/2018	0	Y	y	v				ug/L
MW-11-5	1833531-02	1-Chlorobutane	10/28/2018	0	Y	y	v				ug/L
MW-11-5	1833531-02	Chloroacetonitrile	10/28/2018	0	Y	y	v				ug/L
MW-11-5	1833531-02	o-Xylene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-11-5	1833531-02	p- & m-Xylenes	10/28/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-11-5	1833531-02	Acrylonitrile	10/28/2018	5	Y	n	u		5.0	1.5	ug/L
MW-11-5	1833531-02	Allyl chloride	10/28/2018	5	Y	n	u		5.0	0.47	ug/L
MW-11-5	1833531-02	t-Amyl Methyl ether	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-11-5	1833531-02	t-Butyl alcohol	10/28/2018	10	Y	n	u		10	9.4	ug/L
MW-11-5	1833531-02	Acetone	10/28/2018	10	Y	n	u		10	6.6	ug/L
MW-11-5	1833531-02	trans-1,4-Dichloro-2-butene	10/28/2018	5	Y	n	u	UJ	5.0	1.8	ug/L
MW-11-5	1833531-02	Vinyl chloride	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-11-5	1833531-02	Ethyl methacrylate	10/28/2018	4	Y	n	u		4.0	1.3	ug/L
MW-11-5	1833531-02	Ethyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.32	ug/L
MW-11-5	1833531-02	Hexachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-11-5	1833531-02	2-Hexanone	10/28/2018	10	Y	n	u		10	5.0	ug/L
MW-11-5	1833531-02	Methacrylonitrile	10/28/2018	10	Y	n	u		10	2.3	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-11-5	1833531-02	Methyl ethyl ketone	10/28/2018	10	Y	n	u		10	3.3	ug/L
MW-11-5	1833531-02	Methyl iodide	10/28/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-11-5	1833531-02	Methyl isobutyl ketone	10/28/2018	10	Y	n	u		10	2.4	ug/L
MW-11-5	1833531-02	Methyl methacrylate	10/28/2018	5	Y	n	u		5.0	1.2	ug/L
MW-11-5	1833531-02	Pentachloroethane	10/28/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-11-5	1833531-02	Propionitrile	10/28/2018	20	Y	n	u		20	6.2	ug/L
MW-11-5	1833531-02	Tetrahydrofuran	10/28/2018	20	Y	n	u		20	5.2	ug/L
MW-11-5	1833531-02	Carbon disulfide	10/28/2018	1	Y	n	u		1.0	0.48	ug/L
MW-11-5	1833531-02	Styrene	10/28/2018	0.12	Y	y	v j		0.50	0.12	ug/L
MW-11-5	1833531-02	trans-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-11-5	1833531-02	1,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-11-5	1833531-02	1,3-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-11-5	1833531-02	2,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-11-5	1833531-02	1,1-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-11-5	1833531-02	cis-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-11-5	1833531-02	trans-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-11-5	1833531-02	Ethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-11-5	1833531-02	Hexachlorobutadiene	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-11-5	1833531-02	Isopropylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-11-5	1833531-02	p-Isopropyltoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-11-5	1833531-02	Methylene chloride	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-11-5	1833531-02	Methyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-11-5	1833531-02	2-Nitropropane	10/28/2018	0	Y	y	v				ug/L
MW-11-5	1833531-02	1,2,3-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-11-5	1833531-02	1,3,5-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-11-5	1833531-02	1,1,2-Trichloro-1,2,2-trifluoroethane	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-11-5	1833531-02	Trichlorofluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-11-5	1833531-02	Trichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-11-5	1833531-02	1,1,2-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-11-5	1833531-02	Naphthalene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-11-5	1833531-02	1,2,4-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-11-5	1833531-02	n-Propylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-11-5	1833531-02	Toluene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-11-5	1833531-02	Tetrachloroethene	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-11-5	1833531-02	1,1,2,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-11-5	1833531-02	1,1,1,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-11-5	1833531-02	cis-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-11-5	1833531-02	1,1,1-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-15	1833531-11	1,2-Dichloropropane	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-15	1833531-11	cis-1,3-Dichloropropene	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-15	1833531-11	Dibromomethane	10/27/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-15	1833531-11	1,2-Dichlorobenzene	10/27/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-15	1833531-11	1,3-Dichlorobenzene	10/27/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-15	1833531-11	1,4-Dichlorobenzene	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-15	1833531-11	Dichlorodifluoromethane	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-15	1833531-11	1,1-Dichloroethane	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-15	1833531-11	1,2-Dichloroethane	10/27/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-15	1833531-11	1,1-Dichloroethene	10/27/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-15	1833531-11	cis-1,2-Dichloroethene	10/27/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-15	1833531-11	trans-1,2-Dichloroethene	10/27/2018	0.5	Y	n	u		0.50	0.17	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-15	1833531-11	Nitrobenzene	10/27/2018	0	Y	y	v				ug/L
MW-15	1833531-11	2,2-Dichloropropane	10/27/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-15	1833531-11	1,1-Dichloropropene	10/27/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-15	1833531-11	1,2,3-Trichlorobenzene	10/27/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-15	1833531-11	trans-1,3-Dichloropropene	10/27/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-15	1833531-11	Ethylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-15	1833531-11	Hexachlorobutadiene	10/27/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-15	1833531-11	Isopropylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-15	1833531-11	p-Isopropyltoluene	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-15	1833531-11	Methylene chloride	10/27/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-15	1833531-11	Methyl t-butyl ether	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-15	1833531-11	n-Propylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-15	1833531-11	1,1,1,2-Tetrachloroethane	10/27/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-15	1833531-11	1,1,2,2-Tetrachloroethane	10/27/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-15	1833531-11	Tetrachloroethene	10/27/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-15	1833531-11	Toluene	10/27/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-15	1833531-11	1,3-Dichloropropane	10/27/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-15	1833531-11	Allyl chloride	10/27/2018	5	Y	n	u		5.0	0.47	ug/L
MW-15	1833531-11	Pentachloroethane	10/27/2018	2	Y	n	u		2.0	0.63	ug/L
MW-15	1833531-11	2-Hexanone	10/27/2018	10	Y	n	u		10	5.0	ug/L
MW-15	1833531-11	Hexachloroethane	10/27/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-15	1833531-11	Ethyl t-butyl ether	10/27/2018	0.5	Y	n	u		0.50	0.32	ug/L
MW-15	1833531-11	Ethyl methacrylate	10/27/2018	4	Y	n	u		4.0	1.3	ug/L
MW-15	1833531-11	Diethyl ether	10/27/2018	2	Y	n	u		2.0	0.33	ug/L
MW-15	1833531-11	Carbon disulfide	10/27/2018	1	Y	n	u		1.0	0.48	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-15	1833531-11	Methyl ethyl ketone	10/27/2018	10	Y	n	u		10	3.3	ug/L
MW-15	1833531-11	t-Amyl Methyl ether	10/27/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-15	1833531-11	Methyl iodide	10/27/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-15	1833531-11	Acrylonitrile	10/27/2018	5	Y	n	u		5.0	1.5	ug/L
MW-15	1833531-11	Acetone	10/27/2018	10	Y	n	u		10	6.6	ug/L
MW-15	1833531-11	Vinyl chloride	10/27/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-15	1833531-11	1,3,5-Trimethylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-15	1833531-11	1,2,4-Trimethylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-15	1833531-11	1,1,2-Trichloro-1,2,2-trifluoroethane	10/27/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-15	1833531-11	1,2,3-Trichloropropane	10/27/2018	1	Y	n	u		1.0	0.78	ug/L
MW-15	1833531-11	t-Butyl alcohol	10/27/2018	10	Y	n	u		10	9.4	ug/L
MW-15	1833531-11	1-Chlorobutane	10/27/2018	0	Y	y	v				ug/L
MW-15	1833531-11	1,1,1-Trichloroethane	10/27/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-15	1833531-11	1,1,2-Trichloroethane	10/27/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-15	1833531-11	Trichloroethene	10/27/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-15	1833531-11	Trichlorofluoromethane	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-15	1833531-11	1,2-Dibromoethane	10/27/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-15	1833531-11	2-Nitropropane	10/27/2018	0	Y	y	v				ug/L
MW-15	1833531-11	Naphthalene	10/27/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-15	1833531-11	Methacrylonitrile	10/27/2018	10	Y	n	u		10	2.3	ug/L
MW-15	1833531-11	1,1-Dichloropropanone	10/27/2018	0	Y	y	v				ug/L
MW-15	1833531-11	1,2,4-Trichlorobenzene	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-15	1833531-11	Chloroacetonitrile	10/27/2018	0	Y	y	v				ug/L
MW-15	1833531-11	o-Xylene	10/27/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-15	1833531-11	p- & m-Xylenes	10/27/2018	0.5	Y	n	u		0.50	0.34	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-15	1833531-11	Tetrahydrofuran	10/27/2018	20	Y	n	u		20	5.2	ug/L
MW-15	1833531-11	Propionitrile	10/27/2018	20	Y	n	u		20	6.2	ug/L
MW-15	1833531-11	Methyl methacrylate	10/27/2018	5	Y	n	u		5.0	1.2	ug/L
MW-15	1833531-11	Methyl isobutyl ketone	10/27/2018	10	Y	n	u		10	2.4	ug/L
MW-15	1833531-11	Methyl acrylate	10/27/2018	0	Y	y	v				ug/L
MW-15	1833531-11	Bromochloromethane	10/27/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-15	1833531-11	Styrene	10/27/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-15	1833531-11	1,2-Dibromo-3-chloropropane	10/27/2018	1	Y	n	u		1.0	0.89	ug/L
MW-15	1833531-11	Bromobenzene	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-15	1833531-11	trans-1,4-Dichloro-2-butene	10/27/2018	5	Y	n	u		5.0	1.8	ug/L
MW-15	1833531-11	Bromodichloromethane	10/27/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-15	1833531-11	Bromoform	10/27/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-15	1833531-11	Bromomethane	10/27/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-15	1833531-11	n-Butylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-15	1833531-11	sec-Butylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-15	1833531-11	4-Chlorotoluene	10/27/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-15	1833531-11	Benzene	10/27/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-15	1833531-11	tert-Butylbenzene	10/27/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-15	1833531-11	Dibromochloromethane	10/27/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-15	1833531-11	2-Chlorotoluene	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-15	1833531-11	Chloromethane	10/27/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-15	1833531-11	Chloroform	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-15	1833531-11	Chloroethane	10/27/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-15	1833531-11	Chlorobenzene	10/27/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-15	1833531-11	Carbon tetrachloride	10/27/2018	0.5	Y	n	u		0.50	0.17	ug/L



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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-26-1	1833531-09	2,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-26-1	1833531-09	Isopropylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-26-1	1833531-09	Methyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-26-1	1833531-09	Methylene chloride	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-26-1	1833531-09	p-Isopropyltoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-26-1	1833531-09	Naphthalene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-26-1	1833531-09	Hexachlorobutadiene	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-26-1	1833531-09	Ethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-26-1	1833531-09	trans-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-26-1	1833531-09	1,1-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-26-1	1833531-09	1,3-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-26-1	1833531-09	1,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-26-1	1833531-09	cis-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-26-1	1833531-09	n-Propylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-26-1	1833531-09	Styrene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-26-1	1833531-09	1,1,1,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-26-1	1833531-09	1,1,2,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-26-1	1833531-09	Tetrachloroethene	10/28/2018	0.36	Y	y	v j		0.50	0.23	ug/L
MW-26-1	1833531-09	Toluene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-26-1	1833531-09	trans-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-26-1	1833531-09	1,2,4-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-26-1	1833531-09	1,2-Dibromo-3-chloropropane	10/28/2018	1	Y	n	u		1.0	0.89	ug/L
MW-26-1	1833531-09	1,1,1-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-26-1	1833531-09	1,1,2-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-26-1	1833531-09	Trichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-26-1	1833531-09	Trichlorofluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-26-1	1833531-09	1,2,3-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-26-1	1833531-09	4-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-26-1	1833531-09	Benzene	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-26-1	1833531-09	Bromobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-26-1	1833531-09	Bromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-26-1	1833531-09	Bromodichloromethane	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-26-1	1833531-09	Bromoform	10/28/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-26-1	1833531-09	Bromomethane	10/28/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-26-1	1833531-09	n-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-26-1	1833531-09	sec-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-26-1	1833531-09	tert-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-26-1	1833531-09	Carbon tetrachloride	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-26-1	1833531-09	Chlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-26-1	1833531-09	Dibromomethane	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-26-1	1833531-09	2-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-26-1	1833531-09	cis-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-26-1	1833531-09	Dibromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-26-1	1833531-09	Chloromethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-26-1	1833531-09	1,2-Dibromoethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-26-1	1833531-09	1,2,3-Trichloropropane	10/28/2018	1	Y	n	u		1.0	0.78	ug/L
MW-26-1	1833531-09	1,2-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-26-1	1833531-09	1,3-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-26-1	1833531-09	1,4-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-26-1	1833531-09	Dichlorodifluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-26-1	1833531-09	1,1-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-26-1	1833531-09	1,2-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-26-1	1833531-09	1,1-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-26-1	1833531-09	Chloroform	10/28/2018	0.34	Y	y	v j		0.50	0.14	ug/L
MW-26-1	1833531-09	Chloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-26-1	1833531-09	1,1-Dichloropropanone	10/28/2018	0	Y	y	v				ug/L
MW-26-1	1833531-09	Methyl acrylate	10/28/2018	0	Y	y	v				ug/L
MW-26-1	1833531-09	Methyl methacrylate	10/28/2018	5	Y	n	u		5.0	1.2	ug/L
MW-26-1	1833531-09	Methyl isobutyl ketone	10/28/2018	10	Y	n	u		10	2.4	ug/L
MW-26-1	1833531-09	Methyl iodide	10/28/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-26-1	1833531-09	2-Nitropropane	10/28/2018	0	Y	y	v				ug/L
MW-26-1	1833531-09	1-Chlorobutane	10/28/2018	0	Y	y	v				ug/L
MW-26-1	1833531-09	p- & m-Xylenes	10/28/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-26-1	1833531-09	Nitrobenzene	10/28/2018	0	Y	y	v				ug/L
MW-26-1	1833531-09	1,1,2-Trichloro-1,2,2-trifluoroethane	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-26-1	1833531-09	Methyl ethyl ketone	10/28/2018	10	Y	n	u		10	3.3	ug/L
MW-26-1	1833531-09	Methacrylonitrile	10/28/2018	10	Y	n	u		10	2.3	ug/L
MW-26-1	1833531-09	2-Hexanone	10/28/2018	10	Y	n	u		10	5.0	ug/L
MW-26-1	1833531-09	Hexachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-26-1	1833531-09	Ethyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.32	ug/L
MW-26-1	1833531-09	Ethyl methacrylate	10/28/2018	4	Y	n	u		4.0	1.3	ug/L
MW-26-1	1833531-09	o-Xylene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-26-1	1833531-09	Allyl chloride	10/28/2018	5	Y	n	u		5.0	0.47	ug/L
MW-26-1	1833531-09	Pentachloroethane	10/28/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-26-1	1833531-09	Acetone	10/28/2018	10	Y	n	u		10	6.6	ug/L

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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-26-1	1833531-09	Vinyl chloride	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-26-1	1833531-09	Acrylonitrile	10/28/2018	5	Y	n	u		5.0	1.5	ug/L
MW-26-1	1833531-09	t-Amyl Methyl ether	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-26-1	1833531-09	1,2,4-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-26-1	1833531-09	Tetrahydrofuran	10/28/2018	20	Y	n	u		20	5.2	ug/L
MW-26-1	1833531-09	t-Butyl alcohol	10/28/2018	10	Y	n	u		10	9.4	ug/L
MW-26-1	1833531-09	Carbon disulfide	10/28/2018	1	Y	n	u		1.0	0.48	ug/L
MW-26-1	1833531-09	trans-1,4-Dichloro-2-butene	10/28/2018	5	Y	n	u	UJ	5.0	1.8	ug/L
MW-26-1	1833531-09	Diethyl ether	10/28/2018	2	Y	n	u		2.0	0.33	ug/L
MW-26-1	1833531-09	Propionitrile	10/28/2018	20	Y	n	u		20	6.2	ug/L
MW-26-1	1833531-09	Chloroacetonitrile	10/28/2018	0	Y	y	v				ug/L
MW-26-1	1833531-09	1,3,5-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-26-2	1833531-07	Allyl chloride	10/28/2018	5	Y	n	u		5.0	0.47	ug/L
MW-26-2	1833531-07	2-Hexanone	10/28/2018	10	Y	n	u		10	5.0	ug/L
MW-26-2	1833531-07	Hexachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-26-2	1833531-07	Ethyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.32	ug/L
MW-26-2	1833531-07	Ethyl methacrylate	10/28/2018	4	Y	n	u		4.0	1.3	ug/L
MW-26-2	1833531-07	trans-1,4-Dichloro-2-butene	10/28/2018	5	Y	n	u	UJ	5.0	1.8	ug/L
MW-26-2	1833531-07	1,1,2-Trichloro-1,2,2-trifluoroethane	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-26-2	1833531-07	t-Amyl Methyl ether	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-26-2	1833531-07	Acrylonitrile	10/28/2018	5	Y	n	u		5.0	1.5	ug/L
MW-26-2	1833531-07	Acetone	10/28/2018	10	Y	n	u		10	6.6	ug/L
MW-26-2	1833531-07	Vinyl chloride	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-26-2	1833531-07	1,3,5-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-26-2	1833531-07	1,2,4-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-26-2	1833531-07	t-Butyl alcohol	10/28/2018	10	Y	n	u		10	9.4	ug/L
MW-26-2	1833531-07	p- & m-Xylenes	10/28/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-26-2	1833531-07	2-Nitropropane	10/28/2018	0	Y	y	v				ug/L
MW-26-2	1833531-07	Nitrobenzene	10/28/2018	0	Y	y	v				ug/L
MW-26-2	1833531-07	Methyl acrylate	10/28/2018	0	Y	y	v				ug/L
MW-26-2	1833531-07	1,1-Dichloropropanone	10/28/2018	0	Y	y	v				ug/L
MW-26-2	1833531-07	1-Chlorobutane	10/28/2018	0	Y	y	v				ug/L
MW-26-2	1833531-07	Chloroacetonitrile	10/28/2018	0	Y	y	v				ug/L
MW-26-2	1833531-07	Tetrahydrofuran	10/28/2018	20	Y	n	u		20	5.2	ug/L
MW-26-2	1833531-07	Tetrachloroethene	10/28/2018	1.9	Y	y	v		0.50	0.23	ug/L
MW-26-2	1833531-07	Methacrylonitrile	10/28/2018	10	Y	n	u		10	2.3	ug/L
MW-26-2	1833531-07	1,2,3-Trichloropropane	10/28/2018	1	Y	n	u		1.0	0.78	ug/L
MW-26-2	1833531-07	Propionitrile	10/28/2018	20	Y	n	u		20	6.2	ug/L
MW-26-2	1833531-07	Pentachloroethane	10/28/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-26-2	1833531-07	Methyl methacrylate	10/28/2018	5	Y	n	u		5.0	1.2	ug/L
MW-26-2	1833531-07	Methyl isobutyl ketone	10/28/2018	10	Y	n	u		10	2.4	ug/L
MW-26-2	1833531-07	Methyl iodide	10/28/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-26-2	1833531-07	Methyl ethyl ketone	10/28/2018	10	Y	n	u		10	3.3	ug/L
MW-26-2	1833531-07	o-Xylene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-26-2	1833531-07	Chloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-26-2	1833531-07	1,2,3-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-26-2	1833531-07	Dichlorodifluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-26-2	1833531-07	1,4-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-26-2	1833531-07	1,3-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-26-2	1833531-07	1,2-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-26-2	1833531-07	Dibromomethane	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-26-2	1833531-07	1,2-Dibromoethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-26-2	1833531-07	1,2-Dibromo-3-chloropropane	10/28/2018	1	Y	n	u		1.0	0.89	ug/L
MW-26-2	1833531-07	Dibromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-26-2	1833531-07	4-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-26-2	1833531-07	2-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-26-2	1833531-07	1,2-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-26-2	1833531-07	Chloroform	10/28/2018	1.9	Y	y	v		0.50	0.14	ug/L
MW-26-2	1833531-07	1,1-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-26-2	1833531-07	Chlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-26-2	1833531-07	Carbon tetrachloride	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-26-2	1833531-07	tert-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-26-2	1833531-07	sec-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-26-2	1833531-07	n-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-26-2	1833531-07	Bromomethane	10/28/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-26-2	1833531-07	Bromoform	10/28/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-26-2	1833531-07	Bromodichloromethane	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-26-2	1833531-07	Bromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-26-2	1833531-07	Bromobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-26-2	1833531-07	Benzene	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-26-2	1833531-07	Chloromethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-26-2	1833531-07	p-Isopropyltoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-26-2	1833531-07	Trichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-26-2	1833531-07	1,1,2-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-26-2	1833531-07	1,1,1-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-26-2	1833531-07	1,2,4-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-26-2	1833531-07	Toluene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-26-2	1833531-07	Diethyl ether	10/28/2018	2	Y	n	u		2.0	0.33	ug/L
MW-26-2	1833531-07	1,1,2,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-26-2	1833531-07	1,1,1,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-26-2	1833531-07	Styrene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-26-2	1833531-07	n-Propylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-26-2	1833531-07	Naphthalene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-26-2	1833531-07	1,1-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-26-2	1833531-07	Methylene chloride	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-26-2	1833531-07	Trichlorofluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-26-2	1833531-07	Isopropylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-26-2	1833531-07	Hexachlorobutadiene	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-26-2	1833531-07	Ethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-26-2	1833531-07	trans-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-26-2	1833531-07	cis-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-26-2	1833531-07	1,1-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-26-2	1833531-07	2,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-26-2	1833531-07	1,3-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-26-2	1833531-07	1,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-26-2	1833531-07	trans-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-26-2	1833531-07	cis-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-26-2	1833531-07	Methyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-26-2	1833531-07	Carbon disulfide	10/28/2018	1	Y	n	u		1.0	0.48	ug/L
MW-9	1833531-13	1,2,3-Trichloropropane	10/28/2018	1	Y	n	u		1.0	0.78	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-9	1833531-13	n-Propylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-9	1833531-13	Styrene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-9	1833531-13	1,1,1,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-9	1833531-13	1,1,2,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-9	1833531-13	Tetrachloroethene	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-9	1833531-13	Toluene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-9	1833531-13	1,2,3-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-9	1833531-13	1,2,4-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-9	1833531-13	1,1,1-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-9	1833531-13	1,1,2-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-9	1833531-13	Carbon disulfide	10/28/2018	1	Y	n	u		1.0	0.48	ug/L
MW-9	1833531-13	Trichlorofluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-9	1833531-13	Methylene chloride	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-9	1833531-13	1,1,2-Trichloro-1,2,2-trifluoroethane	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-9	1833531-13	1,2,4-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-9	1833531-13	1,3,5-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-9	1833531-13	Vinyl chloride	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-9	1833531-13	Acetone	10/28/2018	10	Y	n	u		10	6.6	ug/L
MW-9	1833531-13	Acrylonitrile	10/28/2018	5	Y	n	u		5.0	1.5	ug/L
MW-9	1833531-13	Allyl chloride	10/28/2018	5	Y	n	u		5.0	0.47	ug/L
MW-9	1833531-13	t-Amyl Methyl ether	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-9	1833531-13	t-Butyl alcohol	10/28/2018	10	Y	n	u		10	9.4	ug/L
MW-9	1833531-13	Trichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-9	1833531-13	1,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-9	1833531-13	Dibromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L



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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-9	1833531-13	4-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-9	1833531-13	1,2-Dibromo-3-chloropropane	10/28/2018	1	Y	n	u		1.0	0.89	ug/L
MW-9	1833531-13	1,2-Dibromoethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-9	1833531-13	Dibromomethane	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-9	1833531-13	1,3-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-9	1833531-13	Dichlorodifluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-9	1833531-13	1,1-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-9	1833531-13	1,2-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-9	1833531-13	1,1-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-9	1833531-13	Naphthalene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-9	1833531-13	trans-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-9	1833531-13	Methyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-9	1833531-13	1,3-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-9	1833531-13	2,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-9	1833531-13	1,1-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-9	1833531-13	cis-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-9	1833531-13	trans-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-9	1833531-13	Ethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-9	1833531-13	Hexachlorobutadiene	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-9	1833531-13	Isopropylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-9	1833531-13	p-Isopropyltoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-9	1833531-13	1,4-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-9	1833531-13	cis-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-9	1833531-13	Bromoform	10/28/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-9	1833531-13	Nitrobenzene	10/28/2018	0	Y	y	v				ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-9	1833531-13	2-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-9	1833531-13	Chloromethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-9	1833531-13	Chloroform	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-9	1833531-13	Chloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-9	1833531-13	Chlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-9	1833531-13	Carbon tetrachloride	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-9	1833531-13	Methyl acrylate	10/28/2018	0	Y	y	v				ug/L
MW-9	1833531-13	Bromomethane	10/28/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-9	1833531-13	tert-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-9	1833531-13	Bromodichloromethane	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-9	1833531-13	Bromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-9	1833531-13	Bromobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-9	1833531-13	Benzene	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-9	1833531-13	2-Nitropropane	10/28/2018	0	Y	y	v				ug/L
MW-9	1833531-13	1,2-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-9	1833531-13	trans-1,4-Dichloro-2-butene	10/28/2018	5	Y	n	u	UJ	5.0	1.8	ug/L
MW-9	1833531-13	sec-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-9	1833531-13	Methyl isobutyl ketone	10/28/2018	10	Y	n	u		10	2.4	ug/L
MW-9	1833531-13	Ethyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.32	ug/L
MW-9	1833531-13	n-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-9	1833531-13	Ethyl methacrylate	10/28/2018	4	Y	n	u		4.0	1.3	ug/L
MW-9	1833531-13	1,1-Dichloropropanone	10/28/2018	0	Y	y	v				ug/L
MW-9	1833531-13	Diethyl ether	10/28/2018	2	Y	n	u		2.0	0.33	ug/L
MW-9	1833531-13	2-Hexanone	10/28/2018	10	Y	n	u		10	5.0	ug/L
MW-9	1833531-13	Methacrylonitrile	10/28/2018	10	Y	n	u		10	2.3	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-9	1833531-13	Methyl iodide	10/28/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-9	1833531-13	Hexachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-9	1833531-13	Methyl methacrylate	10/28/2018	5	Y	n	u		5.0	1.2	ug/L
MW-9	1833531-13	o-Xylene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-9	1833531-13	Pentachloroethane	10/28/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-9	1833531-13	Propionitrile	10/28/2018	20	Y	n	u		20	6.2	ug/L
MW-9	1833531-13	1-Chlorobutane	10/28/2018	0	Y	y	v				ug/L
MW-9	1833531-13	Tetrahydrofuran	10/28/2018	20	Y	n	u		20	5.2	ug/L
MW-9	1833531-13	p- & m-Xylenes	10/28/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-9	1833531-13	Methyl ethyl ketone	10/28/2018	10	Y	n	u		10	3.3	ug/L
MW-9	1833531-13	Chloroacetonitrile	10/28/2018	0	Y	y	v				ug/L
TB-7-102418	1833531-01	Ethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-7-102418	1833531-01	trans-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
TB-7-102418	1833531-01	cis-1,3-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-7-102418	1833531-01	1,1-Dichloropropene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
TB-7-102418	1833531-01	2,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
TB-7-102418	1833531-01	1,2-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-7-102418	1833531-01	trans-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-7-102418	1833531-01	Hexachlorobutadiene	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
TB-7-102418	1833531-01	1,3-Dichloropropane	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
TB-7-102418	1833531-01	cis-1,2-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
TB-7-102418	1833531-01	Isopropylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-7-102418	1833531-01	p-Isopropyltoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-7-102418	1833531-01	Methylene chloride	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
TB-7-102418	1833531-01	Methyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L

SDG: 1833531

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
TB-7-102418	1833531-01	Naphthalene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
TB-7-102418	1833531-01	Styrene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
TB-7-102418	1833531-01	1,1,1,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
TB-7-102418	1833531-01	1,1,2,2-Tetrachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-7-102418	1833531-01	1,1-Dichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
TB-7-102418	1833531-01	sec-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
TB-7-102418	1833531-01	Tetrachloroethene	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
TB-7-102418	1833531-01	Toluene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-7-102418	1833531-01	n-Propylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.12	ug/L
TB-7-102418	1833531-01	Chloromethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
TB-7-102418	1833531-01	Bromobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-7-102418	1833531-01	Bromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.27	ug/L
TB-7-102418	1833531-01	Bromodichloromethane	10/28/2018	0.5	Y	n	u		0.50	0.20	ug/L
TB-7-102418	1833531-01	Bromoform	10/28/2018	0.5	Y	n	u		0.50	0.46	ug/L
TB-7-102418	1833531-01	Bromomethane	10/28/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
TB-7-102418	1833531-01	n-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-7-102418	1833531-01	Hexachloroethane	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
TB-7-102418	1833531-01	tert-Butylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
TB-7-102418	1833531-01	1,2,3-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
TB-7-102418	1833531-01	Chlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-7-102418	1833531-01	Carbon tetrachloride	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-7-102418	1833531-01	Chloroform	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-7-102418	1833531-01	1,2-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-7-102418	1833531-01	2-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-7-102418	1833531-01	4-Chlorotoluene	10/28/2018	0.5	Y	n	u		0.50	0.093	ug/L

SDG: 1833531

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
TB-7-102418	1833531-01	Dibromochloromethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
TB-7-102418	1833531-01	1,2-Dibromo-3-chloropropane	10/28/2018	1	Y	n	u		1.0	0.89	ug/L
TB-7-102418	1833531-01	1,2-Dibromoethane	10/28/2018	0.5	Y	n	u		0.50	0.22	ug/L
TB-7-102418	1833531-01	Dibromomethane	10/28/2018	0.5	Y	n	u		0.50	0.23	ug/L
TB-7-102418	1833531-01	1,2-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
TB-7-102418	1833531-01	1,3-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.16	ug/L
TB-7-102418	1833531-01	1,4-Dichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-7-102418	1833531-01	Dichlorodifluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-7-102418	1833531-01	1,1-Dichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-7-102418	1833531-01	Chloroethane	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-7-102418	1833531-01	o-Xylene	10/28/2018	0.5	Y	n	u		0.50	0.13	ug/L
TB-7-102418	1833531-01	Methacrylonitrile	10/28/2018	10	Y	n	u		10	2.3	ug/L
TB-7-102418	1833531-01	Methyl ethyl ketone	10/28/2018	10	Y	n	u		10	3.3	ug/L
TB-7-102418	1833531-01	Methyl iodide	10/28/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
TB-7-102418	1833531-01	Methyl isobutyl ketone	10/28/2018	10	Y	n	u		10	2.4	ug/L
TB-7-102418	1833531-01	1,2,4-Trichlorobenzene	10/28/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-7-102418	1833531-01	Pentachloroethane	10/28/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
TB-7-102418	1833531-01	Ethyl methacrylate	10/28/2018	4	Y	n	u		4.0	1.3	ug/L
TB-7-102418	1833531-01	2-Hexanone	10/28/2018	10	Y	n	u		10	5.0	ug/L
TB-7-102418	1833531-01	p- & m-Xylenes	10/28/2018	0.5	Y	n	u		0.50	0.34	ug/L
TB-7-102418	1833531-01	Methyl methacrylate	10/28/2018	5	Y	n	u		5.0	1.2	ug/L
TB-7-102418	1833531-01	Chloroacetonitrile	10/28/2018	0	Y	y	v				ug/L
TB-7-102418	1833531-01	1-Chlorobutane	10/28/2018	0	Y	y	v				ug/L
TB-7-102418	1833531-01	1,1-Dichloropropanone	10/28/2018	0	Y	y	v				ug/L
TB-7-102418	1833531-01	Methyl acrylate	10/28/2018	0	Y	y	v				ug/L

SDG: 1833531

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
TB-7-102418	1833531-01	Nitrobenzene	10/28/2018	0	Y	y	v				ug/L
TB-7-102418	1833531-01	2-Nitropropane	10/28/2018	0	Y	y	v				ug/L
TB-7-102418	1833531-01	Benzene	10/28/2018	0.5	Y	n	u		0.50	0.11	ug/L
TB-7-102418	1833531-01	Tetrahydrofuran	10/28/2018	20	Y	n	u		20	5.2	ug/L
TB-7-102418	1833531-01	Trichlorofluoromethane	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-7-102418	1833531-01	1,1,1-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L
TB-7-102418	1833531-01	Propionitrile	10/28/2018	20	Y	n	u		20	6.2	ug/L
TB-7-102418	1833531-01	Trichloroethene	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
TB-7-102418	1833531-01	Ethyl t-butyl ether	10/28/2018	0.5	Y	n	u		0.50	0.32	ug/L
TB-7-102418	1833531-01	1,2,3-Trichloropropane	10/28/2018	1	Y	n	u		1.0	0.78	ug/L
TB-7-102418	1833531-01	1,1,2-Trichloro-1,2,2-trifluoroethane	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
TB-7-102418	1833531-01	1,2,4-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-7-102418	1833531-01	1,3,5-Trimethylbenzene	10/28/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-7-102418	1833531-01	Acetone	10/28/2018	10	Y	n	u		10	6.6	ug/L
TB-7-102418	1833531-01	Acrylonitrile	10/28/2018	5	Y	n	u		5.0	1.5	ug/L
TB-7-102418	1833531-01	Allyl chloride	10/28/2018	5	Y	n	u		5.0	0.47	ug/L
TB-7-102418	1833531-01	t-Amyl Methyl ether	10/28/2018	0.5	Y	n	u		0.50	0.19	ug/L
TB-7-102418	1833531-01	t-Butyl alcohol	10/28/2018	10	Y	n	u		10	9.4	ug/L
TB-7-102418	1833531-01	Carbon disulfide	10/28/2018	1	Y	n	u		1.0	0.48	ug/L
TB-7-102418	1833531-01	trans-1,4-Dichloro-2-butene	10/28/2018	5	Y	n	u	UJ	5.0	1.8	ug/L
TB-7-102418	1833531-01	Diethyl ether	10/28/2018	2	Y	n	u		2.0	0.33	ug/L
TB-7-102418	1833531-01	Vinyl chloride	10/28/2018	0.5	Y	n	u		0.50	0.18	ug/L
TB-7-102418	1833531-01	1,1,2-Trichloroethane	10/28/2018	0.5	Y	n	u		0.50	0.21	ug/L

SDG: 1833531

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<b>Analytical Method</b>											
EPA-7196											
<b>Sample ID</b>	<b>Lab Sample ID</b>	<b>Chemical Name</b>	<b>Anal Date</b>	<b>Result</b>	<b>Report</b>	<b>Detect</b>	<b>Lab Qual</b>	<b>Val Qual</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
DUP-6-4Q18	1833531-08	Hexavalent Chromium	10/24/2018	0.0014	Y	y	v j		0.0020	0.0007	mg/L
EB-7-102418	1833531-10	Hexavalent Chromium	10/24/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
MW-1	1833531-12	Hexavalent Chromium	10/24/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
MW-11-1	1833531-06	Hexavalent Chromium	10/24/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
MW-11-2	1833531-05	Hexavalent Chromium	10/24/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
MW-11-3	1833531-04	Hexavalent Chromium	10/24/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
MW-11-4	1833531-03	Hexavalent Chromium	10/24/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
MW-11-5	1833531-02	Hexavalent Chromium	10/24/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
MW-15	1833531-11	Hexavalent Chromium	10/24/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
MW-26-1	1833531-09	Hexavalent Chromium	10/24/2018	#####	Y	y	v j		0.0020	0.0007	mg/L
MW-26-2	1833531-07	Hexavalent Chromium	10/24/2018	0.0011	Y	y	v j		0.0020	0.0007	mg/L
MW-9	1833531-13	Hexavalent Chromium	10/24/2018	0.002	Y	n	u		0.0020	0.0007	mg/L

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** NASA JPL, 4Q2018

**LDC Report Date:** December 18, 2018

**Parameters:** Volatiles

**Validation Level:** Level III

**Laboratory:** BC Laboratories, Inc.

**Sample Delivery Group (SDG):** 1833674

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
TB-8-102518	1833674-01	Water	10/25/18
MW-12-5	1833674-02	Water	10/25/18
MW-12-4	1833674-03	Water	10/25/18
MW-12-3	1833674-04	Water	10/25/18
MW-12-2	1833674-05	Water	10/25/18
EB-8-102518	1833674-06	Water	10/25/18
MW-5	1833674-07	Water	10/25/18
MW-8	1833674-08	Water	10/25/18
MW-10	1833674-09	Water	10/25/18
DUP-8-4Q18	1833674-10	Water	10/25/18
DUP-7-4Q18	1833674-11	Water	10/25/18
MW-12-5MS	1833674-02MS	Water	10/25/18
MW-12-5MSD	1833674-02MSD	Water	10/25/18
MW-8MS	1833674-08MS	Water	10/25/18
MW-8MSD	1833674-08MSD	Water	10/25/18



## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) Method 524.2

All sample results were subjected to Level III data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated due to non-conformances discovered during data validation.
- U (Non-detected): The compound or analyte was analyzed for and positively identified by the laboratory; however the compound or analyte should be considered non-detected at the reported concentration due to the presence of contaminants detected in the associated blank(s).
- UJ (Non-detected estimated): The compound or analyte was reported as not detected by the laboratory; however the reported quantitation/detection limit is estimated due to non-conformances discovered during data validation.
- R (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

## III. Initial Calibration and Initial Calibration Verification

An initial calibration was performed as required by the method.

For compounds where average relative response factors (RRFs) were utilized, the percent relative standard deviations (%RSD) were less than or equal to 20.0%

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination ( $r^2$ ) were greater than or equal to 0.990.

Average relative response factors (RRF) for all compounds were within validation criteria.

The percent differences (%D) of the initial calibration verification (ICV) standard were less than or equal to 30.0% for all compounds.

## IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

The percent differences (%D) were less than or equal to 30.0% for all compounds with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
10/27/18 (30OCT29)	Bromomethane	46.0	All samples in SDG 1833674	UJ (all non-detects)	P
10/27/18 (30OCT30)	Methyl iodide Pentachloroethane	43.9 44.1	All samples in SDG 1833674	UJ (all non-detects) UJ (all non-detects)	P

## V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## VI. Field Blanks

Sample TB-8-102518 was identified as a trip blank. No contaminants were found.

Sample EB-8-102518 was identified as an equipment blank. No contaminants were found.

## VII. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## VIII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## IX. Laboratory Control Samples

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## X. Field Duplicates

Samples MW-5 and DUP-8-4Q18 and samples MW-10 and DUP-7-4Q18 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/L)		RPD
	MW-10	DUP-7-4Q18	
Chloroform	0.78	0.79	1
1,1-Dichloroethane	0.16	0.15	6
trans-1,2-Dichloroethene	0.22	0.18	20
Tetrachloroethene	0.67	0.76	13
Trichloroethene	5.8	6.2	7
cis-1,2-Dichloroethene	0.27U	0.38	34

## XI. Internal Standards

All internal standard areas and retention times were within QC limits.

## **XII. Compound Quantitation**

Raw data were not reviewed for Level III validation.

## **XIII. Target Compound Identifications**

Raw data were not reviewed for Level III validation.

## **XIV. System Performance**

Raw data were not reviewed for Level III validation.

## **XV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to continuing calibration %D, data were qualified as estimated in eleven samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the data validation all other results are considered valid and usable for all purposes.

**NASA JPL, 4Q2018**

**Volatiles - Data Qualification Summary - SDG 1833674**

Sample	Compound	Flag	A or P	Reason
TB-8-102518 MW-12-5 MW-12-4 MW-12-3 MW-12-2 EB-8-102518 MW-5 MW-8 MW-10 DUP-8-4Q18 DUP-7-4Q18	Bromomethane Methyl iodide Pentachloroethane	UJ (all non-detects) UJ (all non-detects) UJ (all non-detects)	P	Continuing calibration (%D)

**NASA JPL, 4Q2018**

**Volatiles - Laboratory Blank Data Qualification Summary - SDG 1833674**

No Sample Data Qualified in this SDG

LDC #: 43795C1

**VALIDATION COMPLETENESS WORKSHEET**

Date: 1/14/18

SDG #: 1833674

Level III

Page: 1 of 2

Laboratory: BC Laboratories, Inc.

Reviewer: [Signature]

2nd Reviewer: [Signature]

**METHOD:** GC/MS Volatiles (EPA Method 524.2)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A	
II.	GC/MS Instrument performance check	A	
III.	Initial calibration/ICV	AA	RSO ≤ 20%. Y <sup>2</sup>   CV ≤ 30%
IV.	Continuing calibration	W	CV ≤ 30%
V.	Laboratory Blanks	A	
VI.	Field blanks	ND	TB = 1. EB = 6
VII.	Surrogate spikes	A	
VIII.	Matrix spike/Matrix spike duplicates	A	
IX.	Laboratory control samples	A	1CS
X.	Field duplicates	W	D = T + 10.9 + 11
XI.	Internal standards	A	
XII.	Compound quantitation RL/LOQ/LODs	N	
XIII.	Target compound identification	N	
XIV.	System performance	N	
XV.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB = Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	TB-8-102518	1833674-01	Water	10/25/18
2	MW-12-5 <del>XXXX</del>	1833674-02	Water	10/25/18
3	MW-12-4	1833674-03	Water	10/25/18
4	MW-12-3	1833674-04	Water	10/25/18
5	MW-12-2	1833674-05	Water	10/25/18
6	EB-8-102518	1833674-06	Water	10/25/18
7	MW-5 D1	1833674-07	Water	10/25/18
8	MW-8 <del>XXXX</del>	1833674-08	Water	10/25/18
9	MW-10 D2	1833674-09	Water	10/25/18
10	DUP-8-4Q18 D1	1833674-10	Water	10/25/18
11	DUP-7-4Q18 D2	1833674-11	Water	10/25/18
12	MW-12-5MS	1833674-02MS	Water	10/25/18
13	MW-12-5MSD	1833674-02MSD	Water	10/25/18

LDC #: 43795C1

# VALIDATION COMPLETENESS WORKSHEET

SDG #: 1833674

Level III

Laboratory: BC Laboratories, Inc.

Date: 12/14/18

Page: 2 of 2

Reviewer: [Signature]

2nd Reviewer: [Signature]

**METHOD:** GC/MS Volatiles (EPA Method 524.2)

	Client ID	Lab ID	Matrix	Date
14	MW-8MS	1833674-08MS	Water	10/25/18
15	MW-8MSD	1833674-08MSD	Water	10/25/18
16				
17				

Notes:


## TARGET COMPOUND WORKSHEET

### METHOD: VOA

A. Chloromethane	AA. Tetrachloroethene	AAA. 1,3,5-Trimethylbenzene	AAAA. Ethyl tert-butyl ether	A1. 1,3-Butadiene
B. Bromomethane	BB. 1,1,2,2-Tetrachloroethane	BBB. 4-Chlorotoluene	BBBB. tert-Amyl methyl ether	B1. Hexane
C. Vinyl chloride	CC. Toluene	CCC. tert-Butylbenzene	CCCC. 1-Chlorohexane	C1. Heptane
D. Chloroethane	DD. Chlorobenzene	DDD. 1,2,4-Trimethylbenzene	DDDD. Isopropyl alcohol	D1. Propylene
E. Methylene chloride	EE. Ethylbenzene	EEE. sec-Butylbenzene	EEEE. Acetonitrile	E1. Freon 11
F. Acetone	FF. Styrene	FFF. 1,3-Dichlorobenzene	FFFF. Acrolein	F1. Freon 12
G. Carbon disulfide	GG. Xylenes, total	GGG. p-Isopropyltoluene	GGGG. Acrylonitrile	G1. Freon 113
H. 1,1-Dichloroethene	HH. Vinyl acetate	HHH. 1,4-Dichlorobenzene	HHHH. 1,4-Dioxane	H1. Freon 114
I. 1,1-Dichloroethane	II. 2-Chloroethylvinyl ether	III. n-Butylbenzene	IIII. Isobutyl alcohol	I1. 2-Nitropropane
J. 1,2-Dichloroethene, total	JJ. Dichlorodifluoromethane	JJJ. 1,2-Dichlorobenzene	JJJJ. Methacrylonitrile	J1. Dimethyl disulfide
K. Chloroform	KK. Trichlorofluoromethane	KKK. 1,2,4-Trichlorobenzene	KKKK. Propionitrile	K1. 2,3-Dimethyl pentane
L. 1,2-Dichloroethane	LL. Methyl-tert-butyl ether	LLL. Hexachlorobutadiene	LLLL. Ethyl ether	L1. 2,4-Dimethyl pentane
M. 2-Butanone	MM. 1,2-Dibromo-3-chloropropane	MMM. Naphthalene	MMMM. Benzyl chloride	M1. 3,3-Dimethyl pentane
N. 1,1,1-Trichloroethane	NN. Methyl ethyl ketone	NNN. 1,2,3-Trichlorobenzene	NNNN. Iodomethane	N1. 2-Methylpentane
O. Carbon tetrachloride	OO. 2,2-Dichloropropane	OOO. 1,3,5-Trichlorobenzene	OOOO. 1,1-Difluoroethane	O1. 3-Methylpentane
P. Bromodichloromethane	PP. Bromochloromethane	PPP. trans-1,2-Dichloroethene	PPPP. Tetrahydrofuran	P1. 3-Ethylpentane
Q. 1,2-Dichloropropane	QQ. 1,1-Dichloropropene	QQQ. cis-1,2-Dichloroethene	QQQQ. Methyl acetate	Q1. 2,2-Dimethylpentane
R. cis-1,3-Dichloropropene	RR. Dibromomethane	RRR. m,p-Xylenes	RRRR. Ethyl acetate	R1. 2,2,3-Trimethylbutane
S. Trichloroethene	SS. 1,3-Dichloropropane	SSS. o-Xylene	SSSS. Cyclohexane	S1. 2,2,4-Trimethylpentane
T. Dibromochloromethane	TT. 1,2-Dibromoethane	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	TTTT. Methylcyclohexane	T1. 2-Methylhexane
U. 1,1,2-Trichloroethane	UU. 1,1,1,2-Tetrachloroethane	UUU. 1,2-Dichlorotetrafluoroethane	UUUU. Allyl chloride	U1. Nonanal
V. Benzene	VV. Isopropylbenzene	VVV. 4-Ethyltoluene	VVVV. Methyl methacrylate	V1. 2-Methylnaphthalene
W. trans-1,3-Dichloropropene	WW. Bromobenzene	WWW. Ethanol	WWWW. Ethyl methacrylate	W1. Methanol
X. Bromoform	XX. 1,2,3-Trichloropropane	XXX. Di-isopropyl ether	XXXX. cis-1,4-Dichloro-2-butene	X1. 1,2,3-Trimethylbenzene
Y. 4-Methyl-2-pentanone	YY. n-Propylbenzene	YYY. tert-Butanol	YYYY. trans-1,4-Dichloro-2-butene	Y1. 2-Propanol
Z. 2-Hexanone	ZZ. 2-Chlorotoluene	ZZZ. tert-Butyl alcohol	ZZZZ. Pentachloroethane	Z1. <i>Methyl iodide</i>





LDC#: 43795C1

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

Page: 1 of 1  
Reviewer: [Signature]  
2nd Reviewer: [Signature]

**METHOD: GCMS VOA (EPA Method 524.2)**

Compound	Concentration (ug/L)		RPD
	9	11	
K	0.78	0.79	1
I	0.16	0.15	6
PPP	0.22	0.18	20
AA	0.67	0.76	13
S	5.8	6.2	7
QQQ	0.27U	0.38	34

**Laboratory Data Consultants, Inc.**  
**Data Validation Report**

**Project/Site Name:** NASA JPL, 4Q2018

**LDC Report Date:** December 18, 2018

**Parameters:** Chromium

**Validation Level:** Level III

**Laboratory:** BC Laboratories, Inc.

**Sample Delivery Group (SDG):** 1833674

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
MW-12-5	1833674-02	Water	10/25/18
MW-12-4	1833674-03	Water	10/25/18
MW-12-3	1833674-04	Water	10/25/18
MW-12-2	1833674-05	Water	10/25/18
EB-8-102518	1833674-06	Water	10/25/18

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with a modified outline of the USEPA National Functional Guidelines (NFG) for Inorganic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Chromium by Environmental Protection Agency (EPA) Method 200.8

All sample results were subjected to Level III data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated due to non-conformances discovered during data validation.
- U (Non-detected): The compound or analyte was analyzed for and positively identified by the laboratory; however the compound or analyte should be considered non-detected at the reported concentration due to the presence of contaminants detected in the associated blank(s).
- UJ (Non-detected estimated): The compound or analyte was reported as not detected by the laboratory; however the reported quantitation/detection limit is estimated due to non-conformances discovered during data validation.
- R (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## I. Sample Receipt and Technical Holding Times

All samples were received in good condition.

All technical holding time requirements were met.

## II. ICPMS Tune

The mass calibration was within 0.1 AMU and the percent relative standard deviation (%RSD) was less than or equal to 5%.

## III. Instrument Calibration

Initial and continuing calibrations were performed as required by the method.

The initial calibration verification (ICV) and continuing calibration verification (CCV) standards were within QC limits.

## IV. ICP Interference Check Sample Analysis

ICP interference check sample analysis data were not required by the method.

## V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## VI. Field Blanks

Sample EB-8-102518 was identified as an equipment blank. No contaminants were found with the following exceptions:

Blank ID	Analyte	Concentration (ug/L)
EB-8-102518	Chromium	2.1

## VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## VIII. Duplicate Sample Analysis

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **IX. Serial Dilution**

Serial dilution was not performed for this SDG.

## **X. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **XI. Field Duplicates**

No field duplicates were identified in this SDG.

## **XII. Internal Standards (ICP-MS)**

Raw data were not reviewed for Level III validation.

## **XIII. Sample Result Verification**

Raw data were not reviewed for Level III validation.

## **XIV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

The quality control criteria reviewed were met and are considered acceptable. Based upon the data validation all results are considered valid and usable for all purposes.

**NASA JPL, 4Q2018**  
**Chromium - Data Qualification Summary - SDG 1833674**

No Sample Data Qualified in this SDG

**NASA JPL, 4Q2018**  
**Chromium - Laboratory Blank Data Qualification Summary - SDG 1833674**

No Sample Data Qualified in this SDG

LDC #: 43795C4a

**VALIDATION COMPLETENESS WORKSHEET**

Date: 10-14-18

SDG #: 1833674

Level III

Page: 1 of 1

Laboratory: BC Laboratories, Inc.

Reviewer: MG

2nd Reviewer: [Signature]

**METHOD:** Chromium (EPA Method 200.8)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A	
II.	ICP/MS Tune	A	
III.	Instrument Calibration	A	
IV.	ICP Interference Check Sample (ICS) Analysis	N	not required
V.	Laboratory Blanks	A	
VI.	Field Blanks	SW	EB=5
VII.	Matrix Spike/Matrix Spike Duplicates	A	MS/MSD (SDG: 1833531)
VIII.	Duplicate sample analysis	A	DUP ( ↓ )
IX.	Serial Dilution	N	not performed
X.	Laboratory control samples	A	LCS
XI.	Field Duplicates	N	
XII.	Internal Standard (ICP-MS)	N	not reviewed for Level III
XIII.	Sample Result Verification	N	
XIV.	Overall Assessment of Data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	MW-12-5	1833674-02	Water	10/25/18
2	MW-12-4	1833674-03	Water	10/25/18
3	MW-12-3	1833674-04	Water	10/25/18
4	MW-12-2	1833674-05	Water	10/25/18
5	EB-8-102518	1833674-06	Water	10/25/18
6				
7				
8				
9				
10				
11	PBW			

Notes: \_\_\_\_\_



LDC #: 43795c4a

**VALIDATION FINDINGS WORKSHEET**  
**Field Blanks**

Page: 1 of 1  
Reviewer: MG  
2nd reviewer: g

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

- N/A Were field blanks identified in this SDG?
- N/A Were target analytes detected in the field blanks?

Sample: 5 Field Blank / Trip Blank / Rinsate / Other EB (circle one)

Analyte	Concentration Units ( )
Cr	2.1 (mg/L)

Sample: \_\_\_\_\_ Field Blank / Trip Blank / Rinsate / Other \_\_\_\_\_ (circle one)

Analyte	Concentration Units ( )

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** NASA JPL, 4Q2018  
**LDC Report Date:** December 18, 2018  
**Parameters:** Wet Chemistry  
**Validation Level:** Level III  
**Laboratory:** BC Laboratories, Inc.  
**Sample Delivery Group (SDG):** 1833674

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-12-5	1833674-02	Water	10/25/18
MW-12-4	1833674-03	Water	10/25/18
MW-12-3	1833674-04	Water	10/25/18
MW-12-2	1833674-05	Water	10/25/18
EB-8-102518	1833674-06	Water	10/25/18
MW-5	1833674-07	Water	10/25/18
MW-8	1833674-08	Water	10/25/18
MW-10	1833674-09	Water	10/25/18
DUP-8-4Q18	1833674-10	Water	10/25/18
DUP-7-4Q18	1833674-11	Water	10/25/18
MW-12-5MS	1833674-02MS	Water	10/25/18
MW-12-5MSD	1833674-02MSD	Water	10/25/18
MW-12-5DUP	1833674-02DUP	Water	10/25/18
MW-8MS	1833674-08MS	Water	10/25/18
MW-8MSD	1833674-08MSD	Water	10/25/18
MW-8DUP	1833674-08DUP	Water	10/25/18

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with a modified outline of the USEPA National Functional Guidelines (NFG) for Inorganic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following methods:

Hexavalent Chromium by Environmental Protection Agency (EPA) SW 846 Method 7196

Perchlorate by EPA Method 314.0

All sample results were subjected to Level III data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated due to non-conformances discovered during data validation.
- U (Non-detected): The compound or analyte was analyzed for and positively identified by the laboratory; however the compound or analyte should be considered non-detected at the reported concentration due to the presence of contaminants detected in the associated blank(s).
- UJ (Non-detected estimated): The compound or analyte was reported as not detected by the laboratory; however the reported quantitation/detection limit is estimated due to non-conformances discovered during data validation.
- R (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition.

All technical holding time requirements were met.

## **II. Initial Calibration**

All criteria for the initial calibration of each method were met.

## **III. Continuing Calibration**

Continuing calibration frequency and analysis criteria were met for each method when applicable.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the methods. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

Sample EB-8-102518 was identified as an equipment blank. No contaminants were found.

## **VI. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **VII. Duplicate Sample Analysis**

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the methods. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

Samples MW-5 and DUP-8-4Q18 and samples MW-10 and DUP-7-4Q18 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Analyte	Concentration (ug/L)		RPD
	MW-10	DUP-7-4Q18	
Perchlorate	5.0	5.0	0

### X. Sample Result Verification

Raw data were not reviewed for Level III validation.

### XI. Overall Assessment of Data

The analysis was conducted within all specifications of the methods. No results were rejected in this SDG.

The quality control criteria reviewed were met and are considered acceptable. Based upon the data validation all results are considered valid and usable for all purposes.

**NASA JPL, 4Q2018**  
**Wet Chemistry - Data Qualification Summary - SDG 1833674**

No Sample Data Qualified in this SDG

**NASA JPL, 4Q2018**  
**Wet Chemistry - Laboratory Blank Data Qualification Summary - SDG 1833674**

No Sample Data Qualified in this SDG

LDC #: 43795C6  
 SDG #: 1833674  
 Laboratory: BC Laboratories, Inc.

**VALIDATION COMPLETENESS WORKSHEET**

Level III

Date: 12-14-18  
 Page: 1 of 1  
 Reviewer: MG  
 2nd Reviewer: [Signature]

**METHOD: (Analyte) Hexavalent Chromium (EPA SW846 Method 7196), Perchlorate (EPA Method 314.0)**

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A	
II	Initial calibration	A	
III.	Calibration verification	A	
IV	Laboratory Blanks	A	
V	Field blanks	ND	EB=5
VI.	Matrix Spike/Matrix Spike Duplicates	A	MS/MSD
VII.	Duplicate sample analysis	A	DUP
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	SW	D=6+9*, D=8+10
X.	Sample result verification	N	
XI	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet  
 \* = ND = No compounds detected  
 R = Rinsate  
 FB = Field blank  
 D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank  
 SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	MW-12-5	1833674-02	Water	10/25/18
2	MW-12-4	1833674-03	Water	10/25/18
3	MW-12-3	1833674-04	Water	10/25/18
4	MW-12-2	1833674-05	Water	10/25/18
5	EB-8-102518	1833674-06	Water	10/25/18
6	MW-5	1833674-07	Water	10/25/18
7	MW-8	1833674-08	Water	10/25/18
8	MW-10	1833674-09	Water	10/25/18
9	DUP-8-4Q18	1833674-10	Water	10/25/18
10	DUP-7-4Q18	1833674-11	Water	10/25/18
11	MW-12-5MS	1833674-02MS	Water	10/25/18
12	MW-12-5MSD	1833674-02MSD	Water	10/25/18
13	MW-12-5DUP	1833674-02DUP	Water	10/25/18
14	MW-8MS	1833674-08MS	Water	10/25/18
15	MW-8MSD	1833674-08MSD	Water	10/25/18
16	MW-8DUP	1833674-08DUP	Water	10/25/18
17				

PBW1  
 PBW7





LDC#: 43795C6

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

Page: 1 of 1  
Reviewer: MG  
2nd Reviewer: [Signature]

Inorganics, Method See Cover

Analyte	Concentration (ug/L)		RPD	
	8	10		
Perchlorate	5.0	5.0	0	

V:\FIELD DUPLICATES\Field Duplicates\FD\_inorganic\2018\43795C6.WPD

## NASA JPL, 4Q2018 - LDC# 43795

SDG: 1833674

<b>Analytical Method</b>											
EPA-200.8											
<b>Sample ID</b>	<b>Lab Sample ID</b>	<b>Chemical Name</b>	<b>Anal Date</b>	<b>Result</b>	<b>Report</b>	<b>Detect</b>	<b>Lab Qual</b>	<b>Val Qual</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
EB-8-102518	1833674-06	Total Recoverable Chromium	11/1/2018	2.1	Y	y	v j		3.0	0.50	ug/L
MW-12-2	1833674-05	Total Recoverable Chromium	11/1/2018	1.4	Y	y	v j		3.0	0.50	ug/L
MW-12-3	1833674-04	Total Recoverable Chromium	11/1/2018	1.7	Y	y	v j		3.0	0.50	ug/L
MW-12-4	1833674-03	Total Recoverable Chromium	11/1/2018	2	Y	y	v j		3.0	0.50	ug/L
MW-12-5	1833674-02	Total Recoverable Chromium	11/1/2018	0.76	Y	y	v j		3.0	0.50	ug/L
<b>Analytical Method</b>											
EPA-314.0											
<b>Sample ID</b>	<b>Lab Sample ID</b>	<b>Chemical Name</b>	<b>Anal Date</b>	<b>Result</b>	<b>Report</b>	<b>Detect</b>	<b>Lab Qual</b>	<b>Val Qual</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
DUP-7-4Q18	1833674-11	Perchlorate	11/6/2018	5	Y	y	v		4.0	0.92	ug/L
DUP-8-4Q18	1833674-10	Perchlorate	11/6/2018	4	Y	n	u		4.0	0.92	ug/L
EB-8-102518	1833674-06	Perchlorate	11/6/2018	4	Y	n	u		4.0	0.92	ug/L
MW-10	1833674-09	Perchlorate	11/6/2018	5	Y	y	v		4.0	0.92	ug/L
MW-12-2	1833674-05	Perchlorate	11/6/2018	4	Y	n	u		4.0	0.92	ug/L
MW-12-3	1833674-04	Perchlorate	11/6/2018	1.2	Y	y	v j		4.0	0.92	ug/L
MW-12-4	1833674-03	Perchlorate	11/6/2018	2.2	Y	y	v j		4.0	0.92	ug/L
MW-12-5	1833674-02	Perchlorate	11/5/2018	2.2	Y	y	v j		4.0	0.92	ug/L
MW-5	1833674-07	Perchlorate	11/6/2018	4	Y	n	u		4.0	0.92	ug/L
MW-8	1833674-08	Perchlorate	11/6/2018	79	Y	y	v		40	9.2	ug/L
<b>Analytical Method</b>											
EPA-524.2											
<b>Sample ID</b>	<b>Lab Sample ID</b>	<b>Chemical Name</b>	<b>Anal Date</b>	<b>Result</b>	<b>Report</b>	<b>Detect</b>	<b>Lab Qual</b>	<b>Val Qual</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
DUP-7-4Q18	1833674-11	Carbon disulfide	10/31/2018	1	Y	n	u		1.0	0.48	ug/L
DUP-7-4Q18	1833674-11	Hexachloroethane	10/31/2018	0.5	Y	n	u		0.50	0.11	ug/L
DUP-7-4Q18	1833674-11	Ethyl t-butyl ether	10/31/2018	0.5	Y	n	u		0.50	0.32	ug/L
DUP-7-4Q18	1833674-11	Ethyl methacrylate	10/31/2018	4	Y	n	u		4.0	1.3	ug/L

SDG: 1833674

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
DUP-7-4Q18	1833674-11	Diethyl ether	10/31/2018	2	Y	n	u		2.0	0.33	ug/L
DUP-7-4Q18	1833674-11	trans-1,4-Dichloro-2-butene	10/31/2018	5	Y	n	u		5.0	1.8	ug/L
DUP-7-4Q18	1833674-11	t-Butyl alcohol	10/31/2018	10	Y	n	u		10	9.4	ug/L
DUP-7-4Q18	1833674-11	t-Amyl Methyl ether	10/31/2018	0.5	Y	n	u		0.50	0.19	ug/L
DUP-7-4Q18	1833674-11	Allyl chloride	10/31/2018	5	Y	n	u		5.0	0.47	ug/L
DUP-7-4Q18	1833674-11	Acetone	10/31/2018	10	Y	n	u		10	6.6	ug/L
DUP-7-4Q18	1833674-11	1,3,5-Trimethylbenzene	10/31/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-7-4Q18	1833674-11	1,2,3-Trichloropropane	10/31/2018	1	Y	n	u		1.0	0.78	ug/L
DUP-7-4Q18	1833674-11	Methyl methacrylate	10/31/2018	5	Y	n	u		5.0	1.2	ug/L
DUP-7-4Q18	1833674-11	Benzene	10/31/2018	0.5	Y	n	u		0.50	0.11	ug/L
DUP-7-4Q18	1833674-11	Bromobenzene	10/31/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-7-4Q18	1833674-11	1,2,4-Trimethylbenzene	10/31/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-7-4Q18	1833674-11	p- & m-Xylenes	10/31/2018	0.5	Y	n	u		0.50	0.34	ug/L
DUP-7-4Q18	1833674-11	1,1,2-Trichloro-1,2,2-trifluoroethane	10/31/2018	0.5	Y	n	u		0.50	0.19	ug/L
DUP-7-4Q18	1833674-11	Trichlorofluoromethane	10/31/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-7-4Q18	1833674-11	2-Nitropropane	10/31/2018	0	Y	y	v				ug/L
DUP-7-4Q18	1833674-11	Nitrobenzene	10/31/2018	0	Y	y	v				ug/L
DUP-7-4Q18	1833674-11	Methyl acrylate	10/31/2018	0	Y	y	v				ug/L
DUP-7-4Q18	1833674-11	1,1-Dichloropropanone	10/31/2018	0	Y	y	v				ug/L
DUP-7-4Q18	1833674-11	1-Chlorobutane	10/31/2018	0	Y	y	v				ug/L
DUP-7-4Q18	1833674-11	Methyl iodide	10/31/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
DUP-7-4Q18	1833674-11	o-Xylene	10/31/2018	0.5	Y	n	u		0.50	0.13	ug/L
DUP-7-4Q18	1833674-11	2-Hexanone	10/31/2018	10	Y	n	u		10	5.0	ug/L
DUP-7-4Q18	1833674-11	Tetrahydrofuran	10/31/2018	20	Y	n	u		20	5.2	ug/L
DUP-7-4Q18	1833674-11	Propionitrile	10/31/2018	20	Y	n	u		20	6.2	ug/L

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Analytical Method		EPA-524.2										
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units	
DUP-7-4Q18	1833674-11	Pentachloroethane	10/31/2018	2	Y	n	u	UJ	2.0	0.63	ug/L	
DUP-7-4Q18	1833674-11	Vinyl chloride	10/31/2018	0.5	Y	n	u		0.50	0.18	ug/L	
DUP-7-4Q18	1833674-11	Methyl isobutyl ketone	10/31/2018	10	Y	n	u		10	2.4	ug/L	
DUP-7-4Q18	1833674-11	Bromochloromethane	10/31/2018	0.5	Y	n	u		0.50	0.27	ug/L	
DUP-7-4Q18	1833674-11	Methyl ethyl ketone	10/31/2018	10	Y	n	u		10	3.3	ug/L	
DUP-7-4Q18	1833674-11	Methacrylonitrile	10/31/2018	10	Y	n	u		10	2.3	ug/L	
DUP-7-4Q18	1833674-11	Chloroacetonitrile	10/31/2018	0	Y	y	v				ug/L	
DUP-7-4Q18	1833674-11	Naphthalene	10/31/2018	0.5	Y	n	u		0.50	0.16	ug/L	
DUP-7-4Q18	1833674-11	1,2-Dichloropropane	10/31/2018	0.5	Y	n	u		0.50	0.15	ug/L	
DUP-7-4Q18	1833674-11	1,3-Dichloropropane	10/31/2018	0.5	Y	n	u		0.50	0.13	ug/L	
DUP-7-4Q18	1833674-11	2,2-Dichloropropane	10/31/2018	0.5	Y	n	u		0.50	0.18	ug/L	
DUP-7-4Q18	1833674-11	1,1-Dichloropropene	10/31/2018	0.5	Y	n	u		0.50	0.19	ug/L	
DUP-7-4Q18	1833674-11	cis-1,3-Dichloropropene	10/31/2018	0.5	Y	n	u		0.50	0.14	ug/L	
DUP-7-4Q18	1833674-11	trans-1,3-Dichloropropene	10/31/2018	0.5	Y	n	u		0.50	0.13	ug/L	
DUP-7-4Q18	1833674-11	Bromodichloromethane	10/31/2018	0.5	Y	n	u		0.50	0.20	ug/L	
DUP-7-4Q18	1833674-11	Hexachlorobutadiene	10/31/2018	0.5	Y	n	u		0.50	0.20	ug/L	
DUP-7-4Q18	1833674-11	Acrylonitrile	10/31/2018	5	Y	n	u		5.0	1.5	ug/L	
DUP-7-4Q18	1833674-11	p-Isopropyltoluene	10/31/2018	0.5	Y	n	u		0.50	0.14	ug/L	
DUP-7-4Q18	1833674-11	trans-1,2-Dichloroethene	10/31/2018	0.18	Y	y	v j		0.50	0.17	ug/L	
DUP-7-4Q18	1833674-11	Methyl t-butyl ether	10/31/2018	0.5	Y	n	u		0.50	0.14	ug/L	
DUP-7-4Q18	1833674-11	Ethylbenzene	10/31/2018	0.5	Y	n	u		0.50	0.15	ug/L	
DUP-7-4Q18	1833674-11	n-Propylbenzene	10/31/2018	0.5	Y	n	u		0.50	0.12	ug/L	
DUP-7-4Q18	1833674-11	Styrene	10/31/2018	0.5	Y	n	u		0.50	0.12	ug/L	
DUP-7-4Q18	1833674-11	1,1,1,2-Tetrachloroethane	10/31/2018	0.5	Y	n	u		0.50	0.21	ug/L	
DUP-7-4Q18	1833674-11	1,1,2,2-Tetrachloroethane	10/31/2018	0.5	Y	n	u		0.50	0.17	ug/L	

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
DUP-7-4Q18	1833674-11	Tetrachloroethene	10/31/2018	0.76	Y	y	v		0.50	0.23	ug/L
DUP-7-4Q18	1833674-11	Toluene	10/31/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-7-4Q18	1833674-11	1,2,3-Trichlorobenzene	10/31/2018	0.5	Y	n	u		0.50	0.19	ug/L
DUP-7-4Q18	1833674-11	1,2,4-Trichlorobenzene	10/31/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-7-4Q18	1833674-11	1,1,1-Trichloroethane	10/31/2018	0.5	Y	n	u		0.50	0.21	ug/L
DUP-7-4Q18	1833674-11	1,1,2-Trichloroethane	10/31/2018	0.5	Y	n	u		0.50	0.21	ug/L
DUP-7-4Q18	1833674-11	Trichloroethene	10/31/2018	6.2	Y	y	v		0.50	0.19	ug/L
DUP-7-4Q18	1833674-11	Methylene chloride	10/31/2018	0.5	Y	n	u		0.50	0.21	ug/L
DUP-7-4Q18	1833674-11	tert-Butylbenzene	10/31/2018	0.5	Y	n	u		0.50	0.18	ug/L
DUP-7-4Q18	1833674-11	Bromoform	10/31/2018	0.5	Y	n	u		0.50	0.46	ug/L
DUP-7-4Q18	1833674-11	Bromomethane	10/31/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
DUP-7-4Q18	1833674-11	Isopropylbenzene	10/31/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-7-4Q18	1833674-11	sec-Butylbenzene	10/31/2018	0.5	Y	n	u		0.50	0.13	ug/L
DUP-7-4Q18	1833674-11	cis-1,2-Dichloroethene	10/31/2018	0.38	Y	y	v j		0.50	0.27	ug/L
DUP-7-4Q18	1833674-11	Carbon tetrachloride	10/31/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-7-4Q18	1833674-11	Chlorobenzene	10/31/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-7-4Q18	1833674-11	Chloroethane	10/31/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-7-4Q18	1833674-11	Chloroform	10/31/2018	0.79	Y	y	v		0.50	0.14	ug/L
DUP-7-4Q18	1833674-11	Chloromethane	10/31/2018	0.5	Y	n	u		0.50	0.11	ug/L
DUP-7-4Q18	1833674-11	2-Chlorotoluene	10/31/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-7-4Q18	1833674-11	Dichlorodifluoromethane	10/31/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-7-4Q18	1833674-11	n-Butylbenzene	10/31/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-7-4Q18	1833674-11	4-Chlorotoluene	10/31/2018	0.5	Y	n	u		0.50	0.093	ug/L
DUP-7-4Q18	1833674-11	1,1-Dichloroethane	10/31/2018	0.15	Y	y	v j		0.50	0.15	ug/L
DUP-7-4Q18	1833674-11	1,1-Dichloroethene	10/31/2018	0.5	Y	n	u		0.50	0.27	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
DUP-7-4Q18	1833674-11	1,4-Dichlorobenzene	10/31/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-7-4Q18	1833674-11	1,3-Dichlorobenzene	10/31/2018	0.5	Y	n	u		0.50	0.16	ug/L
DUP-7-4Q18	1833674-11	1,2-Dichlorobenzene	10/31/2018	0.5	Y	n	u		0.50	0.21	ug/L
DUP-7-4Q18	1833674-11	Dibromomethane	10/31/2018	0.5	Y	n	u		0.50	0.23	ug/L
DUP-7-4Q18	1833674-11	1,2-Dibromoethane	10/31/2018	0.5	Y	n	u		0.50	0.22	ug/L
DUP-7-4Q18	1833674-11	1,2-Dibromo-3-chloropropane	10/31/2018	1	Y	n	u		1.0	0.89	ug/L
DUP-7-4Q18	1833674-11	Dibromochloromethane	10/31/2018	0.5	Y	n	u		0.50	0.22	ug/L
DUP-7-4Q18	1833674-11	1,2-Dichloroethane	10/31/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-8-4Q18	1833674-10	1,2-Dibromo-3-chloropropane	10/31/2018	1	Y	n	u		1.0	0.89	ug/L
DUP-8-4Q18	1833674-10	1,2-Dibromoethane	10/31/2018	0.5	Y	n	u		0.50	0.22	ug/L
DUP-8-4Q18	1833674-10	Chlorobenzene	10/31/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-8-4Q18	1833674-10	Dibromochloromethane	10/31/2018	0.5	Y	n	u		0.50	0.22	ug/L
DUP-8-4Q18	1833674-10	4-Chlorotoluene	10/31/2018	0.5	Y	n	u		0.50	0.093	ug/L
DUP-8-4Q18	1833674-10	2-Chlorotoluene	10/31/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-8-4Q18	1833674-10	Chloromethane	10/31/2018	0.5	Y	n	u		0.50	0.11	ug/L
DUP-8-4Q18	1833674-10	Chloroform	10/31/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-8-4Q18	1833674-10	Chloroethane	10/31/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-8-4Q18	1833674-10	Carbon tetrachloride	10/31/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-8-4Q18	1833674-10	tert-Butylbenzene	10/31/2018	0.5	Y	n	u		0.50	0.18	ug/L
DUP-8-4Q18	1833674-10	sec-Butylbenzene	10/31/2018	0.5	Y	n	u		0.50	0.13	ug/L
DUP-8-4Q18	1833674-10	n-Butylbenzene	10/31/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-8-4Q18	1833674-10	Bromodichloromethane	10/31/2018	0.5	Y	n	u		0.50	0.20	ug/L
DUP-8-4Q18	1833674-10	Bromobenzene	10/31/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-8-4Q18	1833674-10	Benzene	10/31/2018	0.5	Y	n	u		0.50	0.11	ug/L
DUP-8-4Q18	1833674-10	Bromoform	10/31/2018	0.5	Y	n	u		0.50	0.46	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
DUP-8-4Q18	1833674-10	Dibromomethane	10/31/2018	0.5	Y	n	u		0.50	0.23	ug/L
DUP-8-4Q18	1833674-10	Bromomethane	10/31/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
DUP-8-4Q18	1833674-10	1,2-Dichlorobenzene	10/31/2018	0.5	Y	n	u		0.50	0.21	ug/L
DUP-8-4Q18	1833674-10	Ethyl t-butyl ether	10/31/2018	0.5	Y	n	u		0.50	0.32	ug/L
DUP-8-4Q18	1833674-10	1,2,3-Trichloropropane	10/31/2018	1	Y	n	u		1.0	0.78	ug/L
DUP-8-4Q18	1833674-10	trans-1,4-Dichloro-2-butene	10/31/2018	5	Y	n	u		5.0	1.8	ug/L
DUP-8-4Q18	1833674-10	Carbon disulfide	10/31/2018	1	Y	n	u		1.0	0.48	ug/L
DUP-8-4Q18	1833674-10	t-Butyl alcohol	10/31/2018	10	Y	n	u		10	9.4	ug/L
DUP-8-4Q18	1833674-10	t-Amyl Methyl ether	10/31/2018	0.5	Y	n	u		0.50	0.19	ug/L
DUP-8-4Q18	1833674-10	Ethyl methacrylate	10/31/2018	4	Y	n	u		4.0	1.3	ug/L
DUP-8-4Q18	1833674-10	Acrylonitrile	10/31/2018	5	Y	n	u		5.0	1.5	ug/L
DUP-8-4Q18	1833674-10	Methyl acrylate	10/31/2018	0	Y	y	v				ug/L
DUP-8-4Q18	1833674-10	Acetone	10/31/2018	10	Y	n	u		10	6.6	ug/L
DUP-8-4Q18	1833674-10	Bromochloromethane	10/31/2018	0.5	Y	n	u		0.50	0.27	ug/L
DUP-8-4Q18	1833674-10	Vinyl chloride	10/31/2018	0.5	Y	n	u		0.50	0.18	ug/L
DUP-8-4Q18	1833674-10	1,3,5-Trimethylbenzene	10/31/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-8-4Q18	1833674-10	1,2,4-Trimethylbenzene	10/31/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-8-4Q18	1833674-10	1,1,2-Trichloro-1,2,2-trifluoroethane	10/31/2018	0.5	Y	n	u		0.50	0.19	ug/L
DUP-8-4Q18	1833674-10	Allyl chloride	10/31/2018	5	Y	n	u		5.0	0.47	ug/L
DUP-8-4Q18	1833674-10	Propionitrile	10/31/2018	20	Y	n	u		20	6.2	ug/L
DUP-8-4Q18	1833674-10	Hexachloroethane	10/31/2018	0.5	Y	n	u		0.50	0.11	ug/L
DUP-8-4Q18	1833674-10	2-Hexanone	10/31/2018	10	Y	n	u		10	5.0	ug/L
DUP-8-4Q18	1833674-10	Methacrylonitrile	10/31/2018	10	Y	n	u		10	2.3	ug/L
DUP-8-4Q18	1833674-10	Methyl ethyl ketone	10/31/2018	10	Y	n	u		10	3.3	ug/L
DUP-8-4Q18	1833674-10	Methyl iodide	10/31/2018	2	Y	n	u	UJ	2.0	1.1	ug/L

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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
DUP-8-4Q18	1833674-10	Methyl isobutyl ketone	10/31/2018	10	Y	n	u		10	2.4	ug/L
DUP-8-4Q18	1833674-10	Diethyl ether	10/31/2018	2	Y	n	u		2.0	0.33	ug/L
DUP-8-4Q18	1833674-10	Pentachloroethane	10/31/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
DUP-8-4Q18	1833674-10	1,1,2,2-Tetrachloroethane	10/31/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-8-4Q18	1833674-10	Tetrahydrofuran	10/31/2018	20	Y	n	u		20	5.2	ug/L
DUP-8-4Q18	1833674-10	p- & m-Xylenes	10/31/2018	0.5	Y	n	u		0.50	0.34	ug/L
DUP-8-4Q18	1833674-10	o-Xylene	10/31/2018	0.5	Y	n	u		0.50	0.13	ug/L
DUP-8-4Q18	1833674-10	Chloroacetonitrile	10/31/2018	0	Y	y	v				ug/L
DUP-8-4Q18	1833674-10	1-Chlorobutane	10/31/2018	0	Y	y	v				ug/L
DUP-8-4Q18	1833674-10	1,1-Dichloropropanone	10/31/2018	0	Y	y	v				ug/L
DUP-8-4Q18	1833674-10	Methyl methacrylate	10/31/2018	5	Y	n	u		5.0	1.2	ug/L
DUP-8-4Q18	1833674-10	cis-1,2-Dichloroethene	10/31/2018	0.5	Y	n	u		0.50	0.27	ug/L
DUP-8-4Q18	1833674-10	Ethylbenzene	10/31/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-8-4Q18	1833674-10	trans-1,3-Dichloropropene	10/31/2018	0.5	Y	n	u		0.50	0.13	ug/L
DUP-8-4Q18	1833674-10	cis-1,3-Dichloropropene	10/31/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-8-4Q18	1833674-10	1,1-Dichloropropene	10/31/2018	0.5	Y	n	u		0.50	0.19	ug/L
DUP-8-4Q18	1833674-10	2,2-Dichloropropane	10/31/2018	0.5	Y	n	u		0.50	0.18	ug/L
DUP-8-4Q18	1833674-10	1,3-Dichloropropane	10/31/2018	0.5	Y	n	u		0.50	0.13	ug/L
DUP-8-4Q18	1833674-10	Styrene	10/31/2018	0.5	Y	n	u		0.50	0.12	ug/L
DUP-8-4Q18	1833674-10	trans-1,2-Dichloroethene	10/31/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-8-4Q18	1833674-10	Isopropylbenzene	10/31/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-8-4Q18	1833674-10	1,1-Dichloroethene	10/31/2018	0.5	Y	n	u		0.50	0.27	ug/L
DUP-8-4Q18	1833674-10	1,2-Dichloroethane	10/31/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-8-4Q18	1833674-10	1,1-Dichloroethane	10/31/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-8-4Q18	1833674-10	Dichlorodifluoromethane	10/31/2018	0.5	Y	n	u		0.50	0.15	ug/L



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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
DUP-8-4Q18	1833674-10	1,4-Dichlorobenzene	10/31/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-8-4Q18	1833674-10	1,3-Dichlorobenzene	10/31/2018	0.5	Y	n	u		0.50	0.16	ug/L
DUP-8-4Q18	1833674-10	1,2-Dichloropropane	10/31/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-8-4Q18	1833674-10	Trichlorofluoromethane	10/31/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-8-4Q18	1833674-10	Tetrachloroethene	10/31/2018	0.5	Y	n	u		0.50	0.23	ug/L
DUP-8-4Q18	1833674-10	Toluene	10/31/2018	0.5	Y	n	u		0.50	0.17	ug/L
DUP-8-4Q18	1833674-10	1,2,3-Trichlorobenzene	10/31/2018	0.5	Y	n	u		0.50	0.19	ug/L
DUP-8-4Q18	1833674-10	1,2,4-Trichlorobenzene	10/31/2018	0.5	Y	n	u		0.50	0.15	ug/L
DUP-8-4Q18	1833674-10	1,1,1-Trichloroethane	10/31/2018	0.5	Y	n	u		0.50	0.21	ug/L
DUP-8-4Q18	1833674-10	2-Nitropropane	10/31/2018	0	Y	y	v				ug/L
DUP-8-4Q18	1833674-10	Trichloroethene	10/31/2018	0.5	Y	n	u		0.50	0.19	ug/L
DUP-8-4Q18	1833674-10	Hexachlorobutadiene	10/31/2018	0.5	Y	n	u		0.50	0.20	ug/L
DUP-8-4Q18	1833674-10	Nitrobenzene	10/31/2018	0	Y	y	v				ug/L
DUP-8-4Q18	1833674-10	n-Propylbenzene	10/31/2018	0.5	Y	n	u		0.50	0.12	ug/L
DUP-8-4Q18	1833674-10	Naphthalene	10/31/2018	0.5	Y	n	u		0.50	0.16	ug/L
DUP-8-4Q18	1833674-10	Methyl t-butyl ether	10/31/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-8-4Q18	1833674-10	Methylene chloride	10/31/2018	0.5	Y	n	u		0.50	0.21	ug/L
DUP-8-4Q18	1833674-10	p-Isopropyltoluene	10/31/2018	0.5	Y	n	u		0.50	0.14	ug/L
DUP-8-4Q18	1833674-10	1,1,1,2-Tetrachloroethane	10/31/2018	0.5	Y	n	u		0.50	0.21	ug/L
DUP-8-4Q18	1833674-10	1,1,2-Trichloroethane	10/31/2018	0.5	Y	n	u		0.50	0.21	ug/L
EB-8-102518	1833674-06	trans-1,3-Dichloropropene	10/30/2018	0.5	Y	n	u		0.50	0.13	ug/L
EB-8-102518	1833674-06	Styrene	10/30/2018	0.5	Y	n	u		0.50	0.12	ug/L
EB-8-102518	1833674-06	1,2,4-Trimethylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-8-102518	1833674-06	1,1,2-Trichloro-1,2,2-trifluoroethane	10/30/2018	0.5	Y	n	u		0.50	0.19	ug/L
EB-8-102518	1833674-06	1,2,3-Trichloropropane	10/30/2018	1	Y	n	u		1.0	0.78	ug/L

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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
EB-8-102518	1833674-06	Trichlorofluoromethane	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-8-102518	1833674-06	Trichloroethene	10/30/2018	0.5	Y	n	u		0.50	0.19	ug/L
EB-8-102518	1833674-06	1,1,2-Trichloroethane	10/30/2018	0.5	Y	n	u		0.50	0.21	ug/L
EB-8-102518	1833674-06	1,1,1-Trichloroethane	10/30/2018	0.5	Y	n	u		0.50	0.21	ug/L
EB-8-102518	1833674-06	1,2,4-Trichlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-8-102518	1833674-06	1,2,3-Trichlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.19	ug/L
EB-8-102518	1833674-06	Toluene	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-8-102518	1833674-06	Tetrachloroethene	10/30/2018	0.5	Y	n	u		0.50	0.23	ug/L
EB-8-102518	1833674-06	1,1-Dichloropropene	10/30/2018	0.5	Y	n	u		0.50	0.19	ug/L
EB-8-102518	1833674-06	1,1,1,2-Tetrachloroethane	10/30/2018	0.5	Y	n	u		0.50	0.21	ug/L
EB-8-102518	1833674-06	1,3-Dichloropropane	10/30/2018	0.5	Y	n	u		0.50	0.13	ug/L
EB-8-102518	1833674-06	n-Propylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.12	ug/L
EB-8-102518	1833674-06	Naphthalene	10/30/2018	0.5	Y	n	u		0.50	0.16	ug/L
EB-8-102518	1833674-06	Methyl t-butyl ether	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-8-102518	1833674-06	Methylene chloride	10/30/2018	0.5	Y	n	u		0.50	0.21	ug/L
EB-8-102518	1833674-06	p-Isopropyltoluene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-8-102518	1833674-06	Isopropylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-8-102518	1833674-06	Hexachlorobutadiene	10/30/2018	0.5	Y	n	u		0.50	0.20	ug/L
EB-8-102518	1833674-06	Ethylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-8-102518	1833674-06	o-Xylene	10/30/2018	0.5	Y	n	u		0.50	0.13	ug/L
EB-8-102518	1833674-06	cis-1,3-Dichloropropene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-8-102518	1833674-06	2,2-Dichloropropane	10/30/2018	0.5	Y	n	u		0.50	0.18	ug/L
EB-8-102518	1833674-06	1,1,2,2-Tetrachloroethane	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-8-102518	1833674-06	Chloroform	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-8-102518	1833674-06	1-Chlorobutane	10/30/2018	0	Y	y	v				ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
EB-8-102518	1833674-06	1,2-Dichloroethane	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-8-102518	1833674-06	1,1-Dichloroethane	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-8-102518	1833674-06	Dichlorodifluoromethane	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-8-102518	1833674-06	1,4-Dichlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-8-102518	1833674-06	1,3-Dichlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.16	ug/L
EB-8-102518	1833674-06	1,2-Dichlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.21	ug/L
EB-8-102518	1833674-06	Dibromomethane	10/30/2018	0.5	Y	n	u		0.50	0.23	ug/L
EB-8-102518	1833674-06	1,2-Dibromoethane	10/30/2018	0.5	Y	n	u		0.50	0.22	ug/L
EB-8-102518	1833674-06	1,2-Dibromo-3-chloropropane	10/30/2018	1	Y	n	u		1.0	0.89	ug/L
EB-8-102518	1833674-06	Dibromochloromethane	10/30/2018	0.5	Y	n	u		0.50	0.22	ug/L
EB-8-102518	1833674-06	4-Chlorotoluene	10/30/2018	0.5	Y	n	u		0.50	0.093	ug/L
EB-8-102518	1833674-06	cis-1,2-Dichloroethene	10/30/2018	0.5	Y	n	u		0.50	0.27	ug/L
EB-8-102518	1833674-06	Chloromethane	10/30/2018	0.5	Y	n	u		0.50	0.11	ug/L
EB-8-102518	1833674-06	trans-1,2-Dichloroethene	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-8-102518	1833674-06	Chloroethane	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-8-102518	1833674-06	Chlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-8-102518	1833674-06	Carbon tetrachloride	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
EB-8-102518	1833674-06	tert-Butylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.18	ug/L
EB-8-102518	1833674-06	sec-Butylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.13	ug/L
EB-8-102518	1833674-06	n-Butylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-8-102518	1833674-06	Bromomethane	10/30/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
EB-8-102518	1833674-06	Bromoform	10/30/2018	0.5	Y	n	u		0.50	0.46	ug/L
EB-8-102518	1833674-06	Bromodichloromethane	10/30/2018	0.5	Y	n	u		0.50	0.20	ug/L
EB-8-102518	1833674-06	Bromochloromethane	10/30/2018	0.5	Y	n	u		0.50	0.27	ug/L
EB-8-102518	1833674-06	Bromobenzene	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
EB-8-102518	1833674-06	Benzene	10/30/2018	0.5	Y	n	u		0.50	0.11	ug/L
EB-8-102518	1833674-06	2-Chlorotoluene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-8-102518	1833674-06	Hexachloroethane	10/30/2018	0.5	Y	n	u		0.50	0.11	ug/L
EB-8-102518	1833674-06	Nitrobenzene	10/30/2018	0	Y	y	v				ug/L
EB-8-102518	1833674-06	Methyl acrylate	10/30/2018	0	Y	y	v				ug/L
EB-8-102518	1833674-06	1,1-Dichloropropanone	10/30/2018	0	Y	y	v				ug/L
EB-8-102518	1833674-06	Chloroacetonitrile	10/30/2018	0	Y	y	v				ug/L
EB-8-102518	1833674-06	p- & m-Xylenes	10/30/2018	0.5	Y	n	u		0.50	0.34	ug/L
EB-8-102518	1833674-06	Tetrahydrofuran	10/30/2018	20	Y	n	u		20	5.2	ug/L
EB-8-102518	1833674-06	Propionitrile	10/30/2018	20	Y	n	u		20	6.2	ug/L
EB-8-102518	1833674-06	Pentachloroethane	10/30/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
EB-8-102518	1833674-06	Methyl methacrylate	10/30/2018	5	Y	n	u		5.0	1.2	ug/L
EB-8-102518	1833674-06	Methyl isobutyl ketone	10/30/2018	10	Y	n	u		10	2.4	ug/L
EB-8-102518	1833674-06	Methyl iodide	10/30/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
EB-8-102518	1833674-06	Methyl ethyl ketone	10/30/2018	10	Y	n	u		10	3.3	ug/L
EB-8-102518	1833674-06	1,1-Dichloroethene	10/30/2018	0.5	Y	n	u		0.50	0.27	ug/L
EB-8-102518	1833674-06	2-Hexanone	10/30/2018	10	Y	n	u		10	5.0	ug/L
EB-8-102518	1833674-06	t-Amyl Methyl ether	10/30/2018	0.5	Y	n	u		0.50	0.19	ug/L
EB-8-102518	1833674-06	1,2-Dichloropropane	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
EB-8-102518	1833674-06	1,3,5-Trimethylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
EB-8-102518	1833674-06	Vinyl chloride	10/30/2018	0.5	Y	n	u		0.50	0.18	ug/L
EB-8-102518	1833674-06	Acetone	10/30/2018	10	Y	n	u		10	6.6	ug/L
EB-8-102518	1833674-06	Methacrylonitrile	10/30/2018	10	Y	n	u		10	2.3	ug/L
EB-8-102518	1833674-06	Allyl chloride	10/30/2018	5	Y	n	u		5.0	0.47	ug/L
EB-8-102518	1833674-06	2-Nitropropane	10/30/2018	0	Y	y	v				ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
EB-8-102518	1833674-06	t-Butyl alcohol	10/30/2018	10	Y	n	u		10	9.4	ug/L
EB-8-102518	1833674-06	Carbon disulfide	10/30/2018	1	Y	n	u		1.0	0.48	ug/L
EB-8-102518	1833674-06	trans-1,4-Dichloro-2-butene	10/30/2018	5	Y	n	u		5.0	1.8	ug/L
EB-8-102518	1833674-06	Diethyl ether	10/30/2018	2	Y	n	u		2.0	0.33	ug/L
EB-8-102518	1833674-06	Ethyl methacrylate	10/30/2018	4	Y	n	u		4.0	1.3	ug/L
EB-8-102518	1833674-06	Ethyl t-butyl ether	10/30/2018	0.5	Y	n	u		0.50	0.32	ug/L
EB-8-102518	1833674-06	Acrylonitrile	10/30/2018	5	Y	n	u		5.0	1.5	ug/L
MW-10	1833674-09	Chloroethane	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-10	1833674-09	Vinyl chloride	10/30/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-10	1833674-09	1,1-Dichloropropene	10/30/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-10	1833674-09	1,2,3-Trichlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-10	1833674-09	1,2,4-Trichlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-10	1833674-09	1,1,1-Trichloroethane	10/30/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-10	1833674-09	1,1,2-Trichloroethane	10/30/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-10	1833674-09	Trichloroethene	10/30/2018	5.8	Y	y	v		0.50	0.19	ug/L
MW-10	1833674-09	Trichlorofluoromethane	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-10	1833674-09	1,2,3-Trichloropropane	10/30/2018	1	Y	n	u		1.0	0.78	ug/L
MW-10	1833674-09	1,1,2-Trichloro-1,2,2-trifluoroethane	10/30/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-10	1833674-09	Tetrachloroethene	10/30/2018	0.67	Y	y	v		0.50	0.23	ug/L
MW-10	1833674-09	1,3,5-Trimethylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-10	1833674-09	1,1,2,2-Tetrachloroethane	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-10	1833674-09	Acetone	10/30/2018	10	Y	n	u		10	6.6	ug/L
MW-10	1833674-09	Acrylonitrile	10/30/2018	5	Y	n	u		5.0	1.5	ug/L
MW-10	1833674-09	Allyl chloride	10/30/2018	5	Y	n	u		5.0	0.47	ug/L
MW-10	1833674-09	t-Amyl Methyl ether	10/30/2018	0.5	Y	n	u		0.50	0.19	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-10	1833674-09	t-Butyl alcohol	10/30/2018	10	Y	n	u		10	9.4	ug/L
MW-10	1833674-09	Carbon disulfide	10/30/2018	1	Y	n	u		1.0	0.48	ug/L
MW-10	1833674-09	trans-1,4-Dichloro-2-butene	10/30/2018	5	Y	n	u		5.0	1.8	ug/L
MW-10	1833674-09	Diethyl ether	10/30/2018	2	Y	n	u		2.0	0.33	ug/L
MW-10	1833674-09	Ethyl methacrylate	10/30/2018	4	Y	n	u		4.0	1.3	ug/L
MW-10	1833674-09	Ethyl t-butyl ether	10/30/2018	0.5	Y	n	u		0.50	0.32	ug/L
MW-10	1833674-09	1,2,4-Trimethylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-10	1833674-09	Ethylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-10	1833674-09	2,2-Dichloropropane	10/30/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-10	1833674-09	1,3-Dichloropropane	10/30/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-10	1833674-09	1,2-Dichloropropane	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-10	1833674-09	trans-1,2-Dichloroethene	10/30/2018	0.22	Y	y	v j		0.50	0.17	ug/L
MW-10	1833674-09	cis-1,2-Dichloroethene	10/30/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-10	1833674-09	1,1-Dichloroethene	10/30/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-10	1833674-09	1,2-Dichloroethane	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-10	1833674-09	1,1-Dichloroethane	10/30/2018	0.16	Y	y	v j		0.50	0.15	ug/L
MW-10	1833674-09	cis-1,3-Dichloropropene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-10	1833674-09	Toluene	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-10	1833674-09	trans-1,3-Dichloropropene	10/30/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-10	1833674-09	2-Hexanone	10/30/2018	10	Y	n	u		10	5.0	ug/L
MW-10	1833674-09	Hexachlorobutadiene	10/30/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-10	1833674-09	Carbon tetrachloride	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-10	1833674-09	Isopropylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-10	1833674-09	p-Isopropyltoluene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-10	1833674-09	Methylene chloride	10/30/2018	0.5	Y	n	u		0.50	0.21	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-10	1833674-09	Methyl t-butyl ether	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-10	1833674-09	Naphthalene	10/30/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-10	1833674-09	n-Propylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-10	1833674-09	Styrene	10/30/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-10	1833674-09	1,1,1,2-Tetrachloroethane	10/30/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-10	1833674-09	Dichlorodifluoromethane	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-10	1833674-09	Bromoform	10/30/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-10	1833674-09	Chloromethane	10/30/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-10	1833674-09	Chloroform	10/30/2018	0.78	Y	y	v		0.50	0.14	ug/L
MW-10	1833674-09	Hexachloroethane	10/30/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-10	1833674-09	Chlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-10	1833674-09	1,4-Dichlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-10	1833674-09	tert-Butylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-10	1833674-09	sec-Butylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-10	1833674-09	2-Chlorotoluene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-10	1833674-09	Bromomethane	10/30/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-10	1833674-09	1-Chlorobutane	10/30/2018	0	Y	y	v				ug/L
MW-10	1833674-09	Bromodichloromethane	10/30/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-10	1833674-09	Bromochloromethane	10/30/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-10	1833674-09	Bromobenzene	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-10	1833674-09	Benzene	10/30/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-10	1833674-09	Methyl acrylate	10/30/2018	0	Y	y	v				ug/L
MW-10	1833674-09	Nitrobenzene	10/30/2018	0	Y	y	v				ug/L
MW-10	1833674-09	2-Nitropropane	10/30/2018	0	Y	y	v				ug/L
MW-10	1833674-09	n-Butylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-10	1833674-09	Methyl isobutyl ketone	10/30/2018	10	Y	n	u		10	2.4	ug/L
MW-10	1833674-09	Methacrylonitrile	10/30/2018	10	Y	n	u		10	2.3	ug/L
MW-10	1833674-09	1,1-Dichloropropanone	10/30/2018	0	Y	y	v				ug/L
MW-10	1833674-09	Methyl iodide	10/30/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-10	1833674-09	4-Chlorotoluene	10/30/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-10	1833674-09	Methyl methacrylate	10/30/2018	5	Y	n	u		5.0	1.2	ug/L
MW-10	1833674-09	Pentachloroethane	10/30/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-10	1833674-09	Propionitrile	10/30/2018	20	Y	n	u		20	6.2	ug/L
MW-10	1833674-09	Tetrahydrofuran	10/30/2018	20	Y	n	u		20	5.2	ug/L
MW-10	1833674-09	o-Xylene	10/30/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-10	1833674-09	Chloroacetonitrile	10/30/2018	0	Y	y	v				ug/L
MW-10	1833674-09	1,3-Dichlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-10	1833674-09	1,2-Dichlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-10	1833674-09	Dibromomethane	10/30/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-10	1833674-09	1,2-Dibromoethane	10/30/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-10	1833674-09	1,2-Dibromo-3-chloropropane	10/30/2018	1	Y	n	u		1.0	0.89	ug/L
MW-10	1833674-09	Dibromochloromethane	10/30/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-10	1833674-09	p- & m-Xylenes	10/30/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-10	1833674-09	Methyl ethyl ketone	10/30/2018	10	Y	n	u		10	3.3	ug/L
MW-12-2	1833674-05	Diethyl ether	10/30/2018	2	Y	n	u		2.0	0.33	ug/L
MW-12-2	1833674-05	Methyl methacrylate	10/30/2018	5	Y	n	u		5.0	1.2	ug/L
MW-12-2	1833674-05	Methyl isobutyl ketone	10/30/2018	10	Y	n	u		10	2.4	ug/L
MW-12-2	1833674-05	Methyl iodide	10/30/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-12-2	1833674-05	Methyl ethyl ketone	10/30/2018	10	Y	n	u		10	3.3	ug/L
MW-12-2	1833674-05	Methacrylonitrile	10/30/2018	10	Y	n	u		10	2.3	ug/L



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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-12-2	1833674-05	2-Hexanone	10/30/2018	10	Y	n	u		10	5.0	ug/L
MW-12-2	1833674-05	Hexachloroethane	10/30/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-12-2	1833674-05	Ethyl t-butyl ether	10/30/2018	0.5	Y	n	u		0.50	0.32	ug/L
MW-12-2	1833674-05	Acetone	10/30/2018	10	Y	n	u		10	6.6	ug/L
MW-12-2	1833674-05	Ethyl methacrylate	10/30/2018	4	Y	n	u		4.0	1.3	ug/L
MW-12-2	1833674-05	tert-Butylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-12-2	1833674-05	Allyl chloride	10/30/2018	5	Y	n	u		5.0	0.47	ug/L
MW-12-2	1833674-05	Bromochloromethane	10/30/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-12-2	1833674-05	Bromodichloromethane	10/30/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-12-2	1833674-05	Bromoform	10/30/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-12-2	1833674-05	Bromomethane	10/30/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-12-2	1833674-05	Benzene	10/30/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-12-2	1833674-05	sec-Butylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-12-2	1833674-05	2-Chlorotoluene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-12-2	1833674-05	Carbon tetrachloride	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-12-2	1833674-05	Chlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-12-2	1833674-05	Chloroethane	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-12-2	1833674-05	Chloromethane	10/30/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-12-2	1833674-05	4-Chlorotoluene	10/30/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-12-2	1833674-05	Dibromochloromethane	10/30/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-12-2	1833674-05	n-Butylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-12-2	1833674-05	Naphthalene	10/30/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-12-2	1833674-05	1,2,3-Trichlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-12-2	1833674-05	Toluene	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-12-2	1833674-05	Tetrachloroethene	10/30/2018	0.5	Y	n	u		0.50	0.23	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-12-2	1833674-05	1,1,2,2-Tetrachloroethane	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-12-2	1833674-05	1,1,1,2-Tetrachloroethane	10/30/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-12-2	1833674-05	Bromobenzene	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-12-2	1833674-05	n-Propylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-12-2	1833674-05	Dibromomethane	10/30/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-12-2	1833674-05	Methyl t-butyl ether	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-12-2	1833674-05	Methylene chloride	10/30/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-12-2	1833674-05	p-Isopropyltoluene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-12-2	1833674-05	Isopropylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-12-2	1833674-05	Hexachlorobutadiene	10/30/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-12-2	1833674-05	Pentachloroethane	10/30/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-12-2	1833674-05	Styrene	10/30/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-12-2	1833674-05	1,3,5-Trimethylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-12-2	1833674-05	1,1,1-Trichloroethane	10/30/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-12-2	1833674-05	1,1,2-Trichloroethane	10/30/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-12-2	1833674-05	Trichloroethene	10/30/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-12-2	1833674-05	Trichlorofluoromethane	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-12-2	1833674-05	1,2,3-Trichloropropane	10/30/2018	1	Y	n	u		1.0	0.78	ug/L
MW-12-2	1833674-05	1,2-Dibromo-3-chloropropane	10/30/2018	1	Y	n	u		1.0	0.89	ug/L
MW-12-2	1833674-05	1,2,4-Trimethylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-12-2	1833674-05	cis-1,3-Dichloropropene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-12-2	1833674-05	Vinyl chloride	10/30/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-12-2	1833674-05	1,2,4-Trichlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-12-2	1833674-05	Acrylonitrile	10/30/2018	5	Y	n	u		5.0	1.5	ug/L
MW-12-2	1833674-05	t-Amyl Methyl ether	10/30/2018	0.5	Y	n	u		0.50	0.19	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-12-2	1833674-05	t-Butyl alcohol	10/30/2018	10	Y	n	u		10	9.4	ug/L
MW-12-2	1833674-05	Carbon disulfide	10/30/2018	1	Y	n	u		1.0	0.48	ug/L
MW-12-2	1833674-05	1,1,2-Trichloro-1,2,2-trifluoroethane	10/30/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-12-2	1833674-05	cis-1,2-Dichloroethene	10/30/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-12-2	1833674-05	trans-1,4-Dichloro-2-butene	10/30/2018	5	Y	n	u		5.0	1.8	ug/L
MW-12-2	1833674-05	1,2-Dichlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-12-2	1833674-05	1,3-Dichlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-12-2	1833674-05	1,4-Dichlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-12-2	1833674-05	Dichlorodifluoromethane	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-12-2	1833674-05	1,1-Dichloroethane	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-12-2	1833674-05	Ethylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-12-2	1833674-05	1,1-Dichloroethene	10/30/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-12-2	1833674-05	trans-1,3-Dichloropropene	10/30/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-12-2	1833674-05	trans-1,2-Dichloroethene	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-12-2	1833674-05	1,2-Dichloropropane	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-12-2	1833674-05	1,3-Dichloropropane	10/30/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-12-2	1833674-05	2,2-Dichloropropane	10/30/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-12-2	1833674-05	1,1-Dichloropropene	10/30/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-12-2	1833674-05	1,2-Dibromoethane	10/30/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-12-2	1833674-05	1,2-Dichloroethane	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-12-2	1833674-05	Propionitrile	10/30/2018	20	Y	n	u		20	6.2	ug/L
MW-12-2	1833674-05	Chloroform	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-12-2	1833674-05	2-Nitropropane	10/30/2018	0	Y	y	v				ug/L
MW-12-2	1833674-05	Nitrobenzene	10/30/2018	0	Y	y	v				ug/L
MW-12-2	1833674-05	Methyl acrylate	10/30/2018	0	Y	y	v				ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-12-2	1833674-05	1,1-Dichloropropanone	10/30/2018	0	Y	y	v				ug/L
MW-12-2	1833674-05	Chloroacetonitrile	10/30/2018	0	Y	y	v				ug/L
MW-12-2	1833674-05	o-Xylene	10/30/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-12-2	1833674-05	p- & m-Xylenes	10/30/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-12-2	1833674-05	Tetrahydrofuran	10/30/2018	20	Y	n	u		20	5.2	ug/L
MW-12-2	1833674-05	1-Chlorobutane	10/30/2018	0	Y	y	v				ug/L
MW-12-3	1833674-04	1,1,2,2-Tetrachloroethane	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-12-3	1833674-04	Trichlorofluoromethane	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-12-3	1833674-04	Trichloroethene	10/30/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-12-3	1833674-04	1,1,2-Trichloroethane	10/30/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-12-3	1833674-04	1,1,1-Trichloroethane	10/30/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-12-3	1833674-04	1,2,4-Trichlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-12-3	1833674-04	1,2,3-Trichlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-12-3	1833674-04	1,1,1,2-Tetrachloroethane	10/30/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-12-3	1833674-04	Tetrachloroethene	10/30/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-12-3	1833674-04	1,2,3-Trichloropropane	10/30/2018	1	Y	n	u		1.0	0.78	ug/L
MW-12-3	1833674-04	Propionitrile	10/30/2018	20	Y	n	u		20	6.2	ug/L
MW-12-3	1833674-04	Styrene	10/30/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-12-3	1833674-04	Toluene	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-12-3	1833674-04	Hexachloroethane	10/30/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-12-3	1833674-04	2-Hexanone	10/30/2018	10	Y	n	u		10	5.0	ug/L
MW-12-3	1833674-04	Methacrylonitrile	10/30/2018	10	Y	n	u		10	2.3	ug/L
MW-12-3	1833674-04	Methyl ethyl ketone	10/30/2018	10	Y	n	u		10	3.3	ug/L
MW-12-3	1833674-04	n-Propylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-12-3	1833674-04	Methyl methacrylate	10/30/2018	5	Y	n	u		5.0	1.2	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-12-3	1833674-04	Hexachlorobutadiene	10/30/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-12-3	1833674-04	Tetrahydrofuran	10/30/2018	20	Y	n	u		20	5.2	ug/L
MW-12-3	1833674-04	p- & m-Xylenes	10/30/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-12-3	1833674-04	o-Xylene	10/30/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-12-3	1833674-04	Chloroacetonitrile	10/30/2018	0	Y	y	v				ug/L
MW-12-3	1833674-04	1-Chlorobutane	10/30/2018	0	Y	y	v				ug/L
MW-12-3	1833674-04	1,1-Dichloropropanone	10/30/2018	0	Y	y	v				ug/L
MW-12-3	1833674-04	Methyl iodide	10/30/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-12-3	1833674-04	cis-1,2-Dichloroethene	10/30/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-12-3	1833674-04	Chloromethane	10/30/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-12-3	1833674-04	2-Chlorotoluene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-12-3	1833674-04	4-Chlorotoluene	10/30/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-12-3	1833674-04	Dibromochloromethane	10/30/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-12-3	1833674-04	1,2-Dibromo-3-chloropropane	10/30/2018	1	Y	n	u		1.0	0.89	ug/L
MW-12-3	1833674-04	1,2-Dibromoethane	10/30/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-12-3	1833674-04	Dibromomethane	10/30/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-12-3	1833674-04	1,2-Dichlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-12-3	1833674-04	1,3-Dichlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-12-3	1833674-04	1,4-Dichlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-12-3	1833674-04	Dichlorodifluoromethane	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-12-3	1833674-04	1,1-Dichloroethane	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-12-3	1833674-04	p-Isopropyltoluene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-12-3	1833674-04	1,1-Dichloroethene	10/30/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-12-3	1833674-04	Naphthalene	10/30/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-12-3	1833674-04	trans-1,2-Dichloroethene	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L

SDG: 1833674

Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-12-3	1833674-04	1,2-Dichloropropane	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-12-3	1833674-04	1,3-Dichloropropane	10/30/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-12-3	1833674-04	2,2-Dichloropropane	10/30/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-12-3	1833674-04	1,1-Dichloropropene	10/30/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-12-3	1833674-04	cis-1,3-Dichloropropene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-12-3	1833674-04	trans-1,3-Dichloropropene	10/30/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-12-3	1833674-04	Ethylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-12-3	1833674-04	Pentachloroethane	10/30/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-12-3	1833674-04	Isopropylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-12-3	1833674-04	Methyl acrylate	10/30/2018	0	Y	y	v				ug/L
MW-12-3	1833674-04	Methylene chloride	10/30/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-12-3	1833674-04	Methyl t-butyl ether	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-12-3	1833674-04	1,2-Dichloroethane	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-12-3	1833674-04	n-Butylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-12-3	1833674-04	Acrylonitrile	10/30/2018	5	Y	n	u		5.0	1.5	ug/L
MW-12-3	1833674-04	Acetone	10/30/2018	10	Y	n	u		10	6.6	ug/L
MW-12-3	1833674-04	Vinyl chloride	10/30/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-12-3	1833674-04	1,3,5-Trimethylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-12-3	1833674-04	1,2,4-Trimethylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-12-3	1833674-04	1,1,2-Trichloro-1,2,2-trifluoroethane	10/30/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-12-3	1833674-04	Chloroethane	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-12-3	1833674-04	Carbon tetrachloride	10/30/2018	0.17	Y	y	v j		0.50	0.17	ug/L
MW-12-3	1833674-04	Allyl chloride	10/30/2018	5	Y	n	u		5.0	0.47	ug/L
MW-12-3	1833674-04	sec-Butylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-12-3	1833674-04	Chloroform	10/30/2018	0.79	Y	y	v		0.50	0.14	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-12-3	1833674-04	Bromomethane	10/30/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-12-3	1833674-04	Bromoform	10/30/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-12-3	1833674-04	Bromodichloromethane	10/30/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-12-3	1833674-04	Bromochloromethane	10/30/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-12-3	1833674-04	Bromobenzene	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-12-3	1833674-04	Benzene	10/30/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-12-3	1833674-04	Nitrobenzene	10/30/2018	0	Y	y	v				ug/L
MW-12-3	1833674-04	Methyl isobutyl ketone	10/30/2018	10	Y	n	u		10	2.4	ug/L
MW-12-3	1833674-04	tert-Butylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-12-3	1833674-04	t-Butyl alcohol	10/30/2018	10	Y	n	u		10	9.4	ug/L
MW-12-3	1833674-04	Carbon disulfide	10/30/2018	1	Y	n	u		1.0	0.48	ug/L
MW-12-3	1833674-04	trans-1,4-Dichloro-2-butene	10/30/2018	5	Y	n	u		5.0	1.8	ug/L
MW-12-3	1833674-04	Diethyl ether	10/30/2018	2	Y	n	u		2.0	0.33	ug/L
MW-12-3	1833674-04	Ethyl methacrylate	10/30/2018	4	Y	n	u		4.0	1.3	ug/L
MW-12-3	1833674-04	Ethyl t-butyl ether	10/30/2018	0.5	Y	n	u		0.50	0.32	ug/L
MW-12-3	1833674-04	Chlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-12-3	1833674-04	t-Amyl Methyl ether	10/30/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-12-3	1833674-04	2-Nitropropane	10/30/2018	0	Y	y	v				ug/L
MW-12-4	1833674-03	sec-Butylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-12-4	1833674-03	4-Chlorotoluene	10/30/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-12-4	1833674-03	2-Chlorotoluene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-12-4	1833674-03	Chloromethane	10/30/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-12-4	1833674-03	Chloroform	10/30/2018	0.36	Y	y	v j		0.50	0.14	ug/L
MW-12-4	1833674-03	Chloroethane	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-12-4	1833674-03	Chlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-12-4	1833674-03	tert-Butylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-12-4	1833674-03	1,1-Dichloroethene	10/30/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-12-4	1833674-03	Bromomethane	10/30/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-12-4	1833674-03	Methyl ethyl ketone	10/30/2018	10	Y	n	u		10	3.3	ug/L
MW-12-4	1833674-03	Bromodichloromethane	10/30/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-12-4	1833674-03	Carbon tetrachloride	10/30/2018	0.19	Y	y	v j		0.50	0.17	ug/L
MW-12-4	1833674-03	Dibromochloromethane	10/30/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-12-4	1833674-03	1,2-Dichloropropane	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-12-4	1833674-03	1,2-Dibromo-3-chloropropane	10/30/2018	1	Y	n	u		1.0	0.89	ug/L
MW-12-4	1833674-03	cis-1,2-Dichloroethene	10/30/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-12-4	1833674-03	1,2-Dichloroethane	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-12-4	1833674-03	1,1-Dichloroethane	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-12-4	1833674-03	Dichlorodifluoromethane	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-12-4	1833674-03	1,4-Dichlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-12-4	1833674-03	1,3-Dichlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-12-4	1833674-03	1,2-Dichlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-12-4	1833674-03	Dibromomethane	10/30/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-12-4	1833674-03	Bromochloromethane	10/30/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-12-4	1833674-03	1,2-Dibromoethane	10/30/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-12-4	1833674-03	2-Hexanone	10/30/2018	10	Y	n	u		10	5.0	ug/L
MW-12-4	1833674-03	trans-1,2-Dichloroethene	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-12-4	1833674-03	Nitrobenzene	10/30/2018	0	Y	y	v				ug/L
MW-12-4	1833674-03	Benzene	10/30/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-12-4	1833674-03	Acrylonitrile	10/30/2018	5	Y	n	u		5.0	1.5	ug/L
MW-12-4	1833674-03	Allyl chloride	10/30/2018	5	Y	n	u		5.0	0.47	ug/L



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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-12-4	1833674-03	t-Amyl Methyl ether	10/30/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-12-4	1833674-03	t-Butyl alcohol	10/30/2018	10	Y	n	u		10	9.4	ug/L
MW-12-4	1833674-03	Carbon disulfide	10/30/2018	1	Y	n	u		1.0	0.48	ug/L
MW-12-4	1833674-03	n-Butylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-12-4	1833674-03	trans-1,4-Dichloro-2-butene	10/30/2018	5	Y	n	u		5.0	1.8	ug/L
MW-12-4	1833674-03	1,3-Dichloropropane	10/30/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-12-4	1833674-03	Diethyl ether	10/30/2018	2	Y	n	u		2.0	0.33	ug/L
MW-12-4	1833674-03	Ethyl methacrylate	10/30/2018	4	Y	n	u		4.0	1.3	ug/L
MW-12-4	1833674-03	Ethyl t-butyl ether	10/30/2018	0.5	Y	n	u		0.50	0.32	ug/L
MW-12-4	1833674-03	2-Nitropropane	10/30/2018	0	Y	y	v				ug/L
MW-12-4	1833674-03	Methacrylonitrile	10/30/2018	10	Y	n	u		10	2.3	ug/L
MW-12-4	1833674-03	Bromobenzene	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-12-4	1833674-03	Methyl acrylate	10/30/2018	0	Y	y	v				ug/L
MW-12-4	1833674-03	1,1-Dichloropropanone	10/30/2018	0	Y	y	v				ug/L
MW-12-4	1833674-03	1-Chlorobutane	10/30/2018	0	Y	y	v				ug/L
MW-12-4	1833674-03	Chloroacetonitrile	10/30/2018	0	Y	y	v				ug/L
MW-12-4	1833674-03	o-Xylene	10/30/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-12-4	1833674-03	p- & m-Xylenes	10/30/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-12-4	1833674-03	Tetrahydrofuran	10/30/2018	20	Y	n	u		20	5.2	ug/L
MW-12-4	1833674-03	Propionitrile	10/30/2018	20	Y	n	u		20	6.2	ug/L
MW-12-4	1833674-03	Pentachloroethane	10/30/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-12-4	1833674-03	Methyl methacrylate	10/30/2018	5	Y	n	u		5.0	1.2	ug/L
MW-12-4	1833674-03	Methyl isobutyl ketone	10/30/2018	10	Y	n	u		10	2.4	ug/L
MW-12-4	1833674-03	Methyl iodide	10/30/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-12-4	1833674-03	Hexachloroethane	10/30/2018	0.5	Y	n	u		0.50	0.11	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-12-4	1833674-03	Vinyl chloride	10/30/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-12-4	1833674-03	Bromoform	10/30/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-12-4	1833674-03	2,2-Dichloropropane	10/30/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-12-4	1833674-03	Acetone	10/30/2018	10	Y	n	u		10	6.6	ug/L
MW-12-4	1833674-03	1,3,5-Trimethylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-12-4	1833674-03	1,2,4-Trimethylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-12-4	1833674-03	1,1,2-Trichloro-1,2,2-trifluoroethane	10/30/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-12-4	1833674-03	1,2,3-Trichloropropane	10/30/2018	1	Y	n	u		1.0	0.78	ug/L
MW-12-4	1833674-03	Trichlorofluoromethane	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-12-4	1833674-03	Trichloroethene	10/30/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-12-4	1833674-03	1,1,2-Trichloroethane	10/30/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-12-4	1833674-03	1,1,1-Trichloroethane	10/30/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-12-4	1833674-03	1,2,4-Trichlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-12-4	1833674-03	1,2,3-Trichlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-12-4	1833674-03	Toluene	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-12-4	1833674-03	Isopropylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-12-4	1833674-03	1,1-Dichloropropene	10/30/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-12-4	1833674-03	cis-1,3-Dichloropropene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-12-4	1833674-03	Ethylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-12-4	1833674-03	Tetrachloroethene	10/30/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-12-4	1833674-03	Hexachlorobutadiene	10/30/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-12-4	1833674-03	trans-1,3-Dichloropropene	10/30/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-12-4	1833674-03	p-Isopropyltoluene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-12-4	1833674-03	Methylene chloride	10/30/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-12-4	1833674-03	Methyl t-butyl ether	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-12-4	1833674-03	Naphthalene	10/30/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-12-4	1833674-03	n-Propylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-12-4	1833674-03	Styrene	10/30/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-12-4	1833674-03	1,1,1,2-Tetrachloroethane	10/30/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-12-4	1833674-03	1,1,2,2-Tetrachloroethane	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-12-5	1833674-02	Methylene chloride	10/30/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-12-5	1833674-02	Methyl t-butyl ether	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-12-5	1833674-02	Naphthalene	10/30/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-12-5	1833674-02	n-Propylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-12-5	1833674-02	p-Isopropyltoluene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-12-5	1833674-02	Bromodichloromethane	10/30/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-12-5	1833674-02	Styrene	10/30/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-12-5	1833674-02	1,1,1,2-Tetrachloroethane	10/30/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-12-5	1833674-02	1,1,2,2-Tetrachloroethane	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-12-5	1833674-02	Tetrachloroethene	10/30/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-12-5	1833674-02	Isopropylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-12-5	1833674-02	1,2,3-Trichlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-12-5	1833674-02	1,2,4-Trichlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-12-5	1833674-02	Toluene	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-12-5	1833674-02	Hexachlorobutadiene	10/30/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-12-5	1833674-02	Ethylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-12-5	1833674-02	trans-1,3-Dichloropropene	10/30/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-12-5	1833674-02	1,1-Dichloropropene	10/30/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-12-5	1833674-02	Dichlorodifluoromethane	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-12-5	1833674-02	1,2-Dichloropropane	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-12-5	1833674-02	trans-1,2-Dichloroethene	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-12-5	1833674-02	cis-1,2-Dichloroethene	10/30/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-12-5	1833674-02	1,1-Dichloroethene	10/30/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-12-5	1833674-02	1,2-Dichloroethane	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-12-5	1833674-02	1,1-Dichloroethane	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-12-5	1833674-02	1,1,1-Trichloroethane	10/30/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-12-5	1833674-02	Diethyl ether	10/30/2018	2	Y	n	u		2.0	0.33	ug/L
MW-12-5	1833674-02	1,4-Dichlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-12-5	1833674-02	1,3-Dichloropropane	10/30/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-12-5	1833674-02	Methyl methacrylate	10/30/2018	5	Y	n	u		5.0	1.2	ug/L
MW-12-5	1833674-02	Carbon disulfide	10/30/2018	1	Y	n	u		1.0	0.48	ug/L
MW-12-5	1833674-02	Hexachloroethane	10/30/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-12-5	1833674-02	2-Hexanone	10/30/2018	10	Y	n	u		10	5.0	ug/L
MW-12-5	1833674-02	Methacrylonitrile	10/30/2018	10	Y	n	u		10	2.3	ug/L
MW-12-5	1833674-02	Methyl ethyl ketone	10/30/2018	10	Y	n	u		10	3.3	ug/L
MW-12-5	1833674-02	Ethyl methacrylate	10/30/2018	4	Y	n	u		4.0	1.3	ug/L
MW-12-5	1833674-02	Methyl isobutyl ketone	10/30/2018	10	Y	n	u		10	2.4	ug/L
MW-12-5	1833674-02	2,2-Dichloropropane	10/30/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-12-5	1833674-02	Pentachloroethane	10/30/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-12-5	1833674-02	Propionitrile	10/30/2018	20	Y	n	u		20	6.2	ug/L
MW-12-5	1833674-02	Tetrahydrofuran	10/30/2018	20	Y	n	u		20	5.2	ug/L
MW-12-5	1833674-02	Bromochloromethane	10/30/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-12-5	1833674-02	Bromobenzene	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-12-5	1833674-02	Benzene	10/30/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-12-5	1833674-02	Methyl iodide	10/30/2018	2	Y	n	u	UJ	2.0	1.1	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-12-5	1833674-02	Acetone	10/30/2018	10	Y	n	u		10	6.6	ug/L
MW-12-5	1833674-02	Trichloroethene	10/30/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-12-5	1833674-02	Trichlorofluoromethane	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-12-5	1833674-02	1,2,3-Trichloropropane	10/30/2018	1	Y	n	u		1.0	0.78	ug/L
MW-12-5	1833674-02	1,1,2-Trichloro-1,2,2-trifluoroethane	10/30/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-12-5	1833674-02	1,2,4-Trimethylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-12-5	1833674-02	Ethyl t-butyl ether	10/30/2018	0.5	Y	n	u		0.50	0.32	ug/L
MW-12-5	1833674-02	Vinyl chloride	10/30/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-12-5	1833674-02	1,1,2-Trichloroethane	10/30/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-12-5	1833674-02	Acrylonitrile	10/30/2018	5	Y	n	u		5.0	1.5	ug/L
MW-12-5	1833674-02	Allyl chloride	10/30/2018	5	Y	n	u		5.0	0.47	ug/L
MW-12-5	1833674-02	t-Amyl Methyl ether	10/30/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-12-5	1833674-02	t-Butyl alcohol	10/30/2018	10	Y	n	u		10	9.4	ug/L
MW-12-5	1833674-02	1,3-Dichlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-12-5	1833674-02	trans-1,4-Dichloro-2-butene	10/30/2018	5	Y	n	u		5.0	1.8	ug/L
MW-12-5	1833674-02	1,3,5-Trimethylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-12-5	1833674-02	Nitrobenzene	10/30/2018	0	Y	y	v				ug/L
MW-12-5	1833674-02	Bromoform	10/30/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-12-5	1833674-02	cis-1,3-Dichloropropene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-12-5	1833674-02	2-Nitropropane	10/30/2018	0	Y	y	v				ug/L
MW-12-5	1833674-02	1,2-Dichlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-12-5	1833674-02	Methyl acrylate	10/30/2018	0	Y	y	v				ug/L
MW-12-5	1833674-02	1,1-Dichloropropanone	10/30/2018	0	Y	y	v				ug/L
MW-12-5	1833674-02	1-Chlorobutane	10/30/2018	0	Y	y	v				ug/L
MW-12-5	1833674-02	Chloroacetonitrile	10/30/2018	0	Y	y	v				ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-12-5	1833674-02	o-Xylene	10/30/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-12-5	1833674-02	p- & m-Xylenes	10/30/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-12-5	1833674-02	Bromomethane	10/30/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-12-5	1833674-02	n-Butylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-12-5	1833674-02	1,2-Dibromo-3-chloropropane	10/30/2018	1	Y	n	u		1.0	0.89	ug/L
MW-12-5	1833674-02	Chlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-12-5	1833674-02	Chloroethane	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-12-5	1833674-02	Chloroform	10/30/2018	0.2	Y	y	v j		0.50	0.14	ug/L
MW-12-5	1833674-02	Chloromethane	10/30/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-12-5	1833674-02	2-Chlorotoluene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-12-5	1833674-02	Dibromochloromethane	10/30/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-12-5	1833674-02	1,2-Dibromoethane	10/30/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-12-5	1833674-02	Dibromomethane	10/30/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-12-5	1833674-02	Carbon tetrachloride	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-12-5	1833674-02	4-Chlorotoluene	10/30/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-12-5	1833674-02	tert-Butylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-12-5	1833674-02	sec-Butylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-5	1833674-07	1,1-Dichloroethene	10/30/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-5	1833674-07	cis-1,2-Dichloroethene	10/30/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-5	1833674-07	trans-1,2-Dichloroethene	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-5	1833674-07	1,2-Dichloropropane	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-5	1833674-07	1,3-Dichloropropane	10/30/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-5	1833674-07	2,2-Dichloropropane	10/30/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-5	1833674-07	p-Isopropyltoluene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-5	1833674-07	cis-1,3-Dichloropropene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-5	1833674-07	Ethylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-5	1833674-07	trans-1,3-Dichloropropene	10/30/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-5	1833674-07	Trichloroethene	10/30/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-5	1833674-07	Isopropylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-5	1833674-07	Methylene chloride	10/30/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-5	1833674-07	Hexachlorobutadiene	10/30/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-5	1833674-07	Dichlorodifluoromethane	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-5	1833674-07	1,1-Dichloropropene	10/30/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-5	1833674-07	Chloroform	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-5	1833674-07	1,1,2-Trichloroethane	10/30/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-5	1833674-07	Benzene	10/30/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-5	1833674-07	Bromobenzene	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-5	1833674-07	Bromochloromethane	10/30/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-5	1833674-07	Bromodichloromethane	10/30/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-5	1833674-07	Bromoform	10/30/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-5	1833674-07	Bromomethane	10/30/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-5	1833674-07	n-Butylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-5	1833674-07	sec-Butylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-5	1833674-07	tert-Butylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-5	1833674-07	Carbon tetrachloride	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-5	1833674-07	1,2-Dichloroethane	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-5	1833674-07	Chloroethane	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-5	1833674-07	1,1-Dichloroethane	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-5	1833674-07	Chloromethane	10/30/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-5	1833674-07	2-Chlorotoluene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-5	1833674-07	4-Chlorotoluene	10/30/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-5	1833674-07	Dibromochloromethane	10/30/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-5	1833674-07	1,2-Dibromo-3-chloropropane	10/30/2018	1	Y	n	u		1.0	0.89	ug/L
MW-5	1833674-07	1,2-Dibromoethane	10/30/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-5	1833674-07	Dibromomethane	10/30/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-5	1833674-07	1,2-Dichlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-5	1833674-07	1,3-Dichlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-5	1833674-07	1,4-Dichlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-5	1833674-07	Toluene	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-5	1833674-07	Chlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-5	1833674-07	Tetrahydrofuran	10/30/2018	20	Y	n	u		20	5.2	ug/L
MW-5	1833674-07	1,1,2,2-Tetrachloroethane	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-5	1833674-07	Hexachloroethane	10/30/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-5	1833674-07	2-Hexanone	10/30/2018	10	Y	n	u		10	5.0	ug/L
MW-5	1833674-07	Methacrylonitrile	10/30/2018	10	Y	n	u		10	2.3	ug/L
MW-5	1833674-07	Methyl ethyl ketone	10/30/2018	10	Y	n	u		10	3.3	ug/L
MW-5	1833674-07	Methyl iodide	10/30/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-5	1833674-07	Methyl isobutyl ketone	10/30/2018	10	Y	n	u		10	2.4	ug/L
MW-5	1833674-07	Methyl methacrylate	10/30/2018	5	Y	n	u		5.0	1.2	ug/L
MW-5	1833674-07	Ethyl methacrylate	10/30/2018	4	Y	n	u		4.0	1.3	ug/L
MW-5	1833674-07	Propionitrile	10/30/2018	20	Y	n	u		20	6.2	ug/L
MW-5	1833674-07	Diethyl ether	10/30/2018	2	Y	n	u		2.0	0.33	ug/L
MW-5	1833674-07	1,1,1-Trichloroethane	10/30/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-5	1833674-07	p- & m-Xylenes	10/30/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-5	1833674-07	o-Xylene	10/30/2018	0.5	Y	n	u		0.50	0.13	ug/L



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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-5	1833674-07	Chloroacetonitrile	10/30/2018	0	Y	y	v				ug/L
MW-5	1833674-07	1-Chlorobutane	10/30/2018	0	Y	y	v				ug/L
MW-5	1833674-07	1,1-Dichloropropanone	10/30/2018	0	Y	y	v				ug/L
MW-5	1833674-07	Methyl acrylate	10/30/2018	0	Y	y	v				ug/L
MW-5	1833674-07	Nitrobenzene	10/30/2018	0	Y	y	v				ug/L
MW-5	1833674-07	2-Nitropropane	10/30/2018	0	Y	y	v				ug/L
MW-5	1833674-07	Pentachloroethane	10/30/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-5	1833674-07	1,2,4-Trimethylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-5	1833674-07	Naphthalene	10/30/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-5	1833674-07	n-Propylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-5	1833674-07	Styrene	10/30/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-5	1833674-07	1,1,1,2-Tetrachloroethane	10/30/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-5	1833674-07	Trichlorofluoromethane	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-5	1833674-07	Tetrachloroethene	10/30/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-5	1833674-07	1,2,3-Trichlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-5	1833674-07	1,2,4-Trichlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-5	1833674-07	Ethyl t-butyl ether	10/30/2018	0.5	Y	n	u		0.50	0.32	ug/L
MW-5	1833674-07	1,1,2-Trichloro-1,2,2-trifluoroethane	10/30/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-5	1833674-07	Methyl t-butyl ether	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-5	1833674-07	1,3,5-Trimethylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-5	1833674-07	Vinyl chloride	10/30/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-5	1833674-07	Acetone	10/30/2018	10	Y	n	u		10	6.6	ug/L
MW-5	1833674-07	Acrylonitrile	10/30/2018	5	Y	n	u		5.0	1.5	ug/L
MW-5	1833674-07	Allyl chloride	10/30/2018	5	Y	n	u		5.0	0.47	ug/L
MW-5	1833674-07	t-Amyl Methyl ether	10/30/2018	0.5	Y	n	u		0.50	0.19	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-5	1833674-07	t-Butyl alcohol	10/30/2018	10	Y	n	u		10	9.4	ug/L
MW-5	1833674-07	Carbon disulfide	10/30/2018	1	Y	n	u		1.0	0.48	ug/L
MW-5	1833674-07	trans-1,4-Dichloro-2-butene	10/30/2018	5	Y	n	u		5.0	1.8	ug/L
MW-5	1833674-07	1,2,3-Trichloropropane	10/30/2018	1	Y	n	u		1.0	0.78	ug/L
MW-8	1833674-08	Naphthalene	10/31/2018	0.5	Y	n	u		0.50	0.16	ug/L
MW-8	1833674-08	Toluene	10/31/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-8	1833674-08	Benzene	10/31/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-8	1833674-08	1,2,4-Trimethylbenzene	10/31/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-8	1833674-08	1,1,2-Trichloro-1,2,2-trifluoroethane	10/31/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-8	1833674-08	1,2,3-Trichloropropane	10/31/2018	1	Y	n	u		1.0	0.78	ug/L
MW-8	1833674-08	Trichlorofluoromethane	10/31/2018	0.23	Y	y	v j		0.50	0.14	ug/L
MW-8	1833674-08	Trichloroethene	10/31/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-8	1833674-08	1,1,2-Trichloroethane	10/31/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-8	1833674-08	1,1,1-Trichloroethane	10/31/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-8	1833674-08	Hexachlorobutadiene	10/31/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-8	1833674-08	1,2,3-Trichlorobenzene	10/31/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-8	1833674-08	Allyl chloride	10/31/2018	5	Y	n	u		5.0	0.47	ug/L
MW-8	1833674-08	Tetrachloroethene	10/31/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-8	1833674-08	1,1,2,2-Tetrachloroethane	10/31/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-8	1833674-08	1,1,1,2-Tetrachloroethane	10/31/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-8	1833674-08	Styrene	10/31/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-8	1833674-08	n-Propylbenzene	10/31/2018	0.5	Y	n	u		0.50	0.12	ug/L
MW-8	1833674-08	Methyl t-butyl ether	10/31/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-8	1833674-08	p-Isopropyltoluene	10/31/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-8	1833674-08	Isopropylbenzene	10/31/2018	0.5	Y	n	u		0.50	0.14	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-8	1833674-08	1,2,4-Trichlorobenzene	10/31/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-8	1833674-08	2-Hexanone	10/31/2018	10	Y	n	u		10	5.0	ug/L
MW-8	1833674-08	Methylene chloride	10/31/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-8	1833674-08	2-Nitropropane	10/31/2018	0	Y	y	v				ug/L
MW-8	1833674-08	Tetrahydrofuran	10/31/2018	20	Y	n	u		20	5.2	ug/L
MW-8	1833674-08	Propionitrile	10/31/2018	20	Y	n	u		20	6.2	ug/L
MW-8	1833674-08	Pentachloroethane	10/31/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
MW-8	1833674-08	Methyl methacrylate	10/31/2018	5	Y	n	u		5.0	1.2	ug/L
MW-8	1833674-08	Methyl isobutyl ketone	10/31/2018	10	Y	n	u		10	2.4	ug/L
MW-8	1833674-08	Methyl iodide	10/31/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
MW-8	1833674-08	Vinyl chloride	10/31/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-8	1833674-08	Methacrylonitrile	10/31/2018	10	Y	n	u		10	2.3	ug/L
MW-8	1833674-08	Acrylonitrile	10/31/2018	5	Y	n	u		5.0	1.5	ug/L
MW-8	1833674-08	Hexachloroethane	10/31/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-8	1833674-08	Ethyl t-butyl ether	10/31/2018	0.5	Y	n	u		0.50	0.32	ug/L
MW-8	1833674-08	Ethyl methacrylate	10/31/2018	4	Y	n	u		4.0	1.3	ug/L
MW-8	1833674-08	Diethyl ether	10/31/2018	2	Y	n	u		2.0	0.33	ug/L
MW-8	1833674-08	trans-1,4-Dichloro-2-butene	10/31/2018	5	Y	n	u		5.0	1.8	ug/L
MW-8	1833674-08	Carbon disulfide	10/31/2018	1	Y	n	u		1.0	0.48	ug/L
MW-8	1833674-08	t-Butyl alcohol	10/31/2018	10	Y	n	u		10	9.4	ug/L
MW-8	1833674-08	t-Amyl Methyl ether	10/31/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-8	1833674-08	1,3,5-Trimethylbenzene	10/31/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-8	1833674-08	Methyl ethyl ketone	10/31/2018	10	Y	n	u		10	3.3	ug/L
MW-8	1833674-08	p- & m-Xylenes	10/31/2018	0.5	Y	n	u		0.50	0.34	ug/L
MW-8	1833674-08	1,1-Dichloroethane	10/31/2018	0.5	Y	n	u		0.50	0.15	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-8	1833674-08	1,2-Dichloroethane	10/31/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-8	1833674-08	1,1-Dichloroethene	10/31/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-8	1833674-08	cis-1,2-Dichloroethene	10/31/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-8	1833674-08	trans-1,2-Dichloroethene	10/31/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-8	1833674-08	1,2-Dichloropropane	10/31/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-8	1833674-08	1,3-Dichloropropane	10/31/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-8	1833674-08	1,1-Dichloropropene	10/31/2018	0.5	Y	n	u		0.50	0.19	ug/L
MW-8	1833674-08	Dichlorodifluoromethane	10/31/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-8	1833674-08	Ethylbenzene	10/31/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-8	1833674-08	2,2-Dichloropropane	10/31/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-8	1833674-08	o-Xylene	10/31/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-8	1833674-08	Chloroacetonitrile	10/31/2018	0	Y	y	v				ug/L
MW-8	1833674-08	1-Chlorobutane	10/31/2018	0	Y	y	v				ug/L
MW-8	1833674-08	1,1-Dichloropropanone	10/31/2018	0	Y	y	v				ug/L
MW-8	1833674-08	Methyl acrylate	10/31/2018	0	Y	y	v				ug/L
MW-8	1833674-08	Bromobenzene	10/31/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-8	1833674-08	Acetone	10/31/2018	10	Y	n	u		10	6.6	ug/L
MW-8	1833674-08	Nitrobenzene	10/31/2018	0	Y	y	v				ug/L
MW-8	1833674-08	trans-1,3-Dichloropropene	10/31/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-8	1833674-08	Bromomethane	10/31/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
MW-8	1833674-08	Bromochloromethane	10/31/2018	0.5	Y	n	u		0.50	0.27	ug/L
MW-8	1833674-08	Bromodichloromethane	10/31/2018	0.5	Y	n	u		0.50	0.20	ug/L
MW-8	1833674-08	cis-1,3-Dichloropropene	10/31/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-8	1833674-08	Bromoform	10/31/2018	0.5	Y	n	u		0.50	0.46	ug/L
MW-8	1833674-08	1,4-Dichlorobenzene	10/31/2018	0.5	Y	n	u		0.50	0.15	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
MW-8	1833674-08	n-Butylbenzene	10/31/2018	0.5	Y	n	u		0.50	0.15	ug/L
MW-8	1833674-08	sec-Butylbenzene	10/31/2018	0.5	Y	n	u		0.50	0.13	ug/L
MW-8	1833674-08	tert-Butylbenzene	10/31/2018	0.5	Y	n	u		0.50	0.18	ug/L
MW-8	1833674-08	Carbon tetrachloride	10/31/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-8	1833674-08	Chlorobenzene	10/31/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-8	1833674-08	Chloroethane	10/31/2018	0.5	Y	n	u		0.50	0.17	ug/L
MW-8	1833674-08	Chloroform	10/31/2018	2.5	Y	y	v		0.50	0.14	ug/L
MW-8	1833674-08	Dibromomethane	10/31/2018	0.5	Y	n	u		0.50	0.23	ug/L
MW-8	1833674-08	1,2-Dichlorobenzene	10/31/2018	0.5	Y	n	u		0.50	0.21	ug/L
MW-8	1833674-08	1,2-Dibromoethane	10/31/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-8	1833674-08	1,2-Dibromo-3-chloropropane	10/31/2018	1	Y	n	u		1.0	0.89	ug/L
MW-8	1833674-08	Dibromochloromethane	10/31/2018	0.5	Y	n	u		0.50	0.22	ug/L
MW-8	1833674-08	4-Chlorotoluene	10/31/2018	0.5	Y	n	u		0.50	0.093	ug/L
MW-8	1833674-08	2-Chlorotoluene	10/31/2018	0.5	Y	n	u		0.50	0.14	ug/L
MW-8	1833674-08	Chloromethane	10/31/2018	0.5	Y	n	u		0.50	0.11	ug/L
MW-8	1833674-08	1,3-Dichlorobenzene	10/31/2018	0.5	Y	n	u		0.50	0.16	ug/L
TB-8-102518	1833674-01	1,2-Dichloropropane	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-8-102518	1833674-01	Styrene	10/30/2018	0.5	Y	n	u		0.50	0.12	ug/L
TB-8-102518	1833674-01	Isopropylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-8-102518	1833674-01	1,3-Dichloropropane	10/30/2018	0.5	Y	n	u		0.50	0.13	ug/L
TB-8-102518	1833674-01	2,2-Dichloropropane	10/30/2018	0.5	Y	n	u		0.50	0.18	ug/L
TB-8-102518	1833674-01	1,1-Dichloropropene	10/30/2018	0.5	Y	n	u		0.50	0.19	ug/L
TB-8-102518	1833674-01	cis-1,3-Dichloropropene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-8-102518	1833674-01	trans-1,3-Dichloropropene	10/30/2018	0.5	Y	n	u		0.50	0.13	ug/L
TB-8-102518	1833674-01	Ethylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
TB-8-102518	1833674-01	Hexachlorobutadiene	10/30/2018	0.5	Y	n	u		0.50	0.20	ug/L
TB-8-102518	1833674-01	p-Isopropyltoluene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-8-102518	1833674-01	Methylene chloride	10/30/2018	0.5	Y	n	u		0.50	0.21	ug/L
TB-8-102518	1833674-01	Methyl t-butyl ether	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-8-102518	1833674-01	Tetrachloroethene	10/30/2018	0.5	Y	n	u		0.50	0.23	ug/L
TB-8-102518	1833674-01	n-Propylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.12	ug/L
TB-8-102518	1833674-01	trans-1,2-Dichloroethene	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-8-102518	1833674-01	1,1,1,2-Tetrachloroethane	10/30/2018	0.5	Y	n	u		0.50	0.21	ug/L
TB-8-102518	1833674-01	1,1,2,2-Tetrachloroethane	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-8-102518	1833674-01	Toluene	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-8-102518	1833674-01	sec-Butylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.13	ug/L
TB-8-102518	1833674-01	Naphthalene	10/30/2018	0.5	Y	n	u		0.50	0.16	ug/L
TB-8-102518	1833674-01	1,2-Dibromo-3-chloropropane	10/30/2018	1	Y	n	u		1.0	0.89	ug/L
TB-8-102518	1833674-01	1,2,3-Trichlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.19	ug/L
TB-8-102518	1833674-01	tert-Butylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.18	ug/L
TB-8-102518	1833674-01	Chlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-8-102518	1833674-01	n-Butylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-8-102518	1833674-01	Chloroethane	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-8-102518	1833674-01	Chloroform	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-8-102518	1833674-01	Chloromethane	10/30/2018	0.5	Y	n	u		0.50	0.11	ug/L
TB-8-102518	1833674-01	2-Chlorotoluene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-8-102518	1833674-01	Carbon tetrachloride	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-8-102518	1833674-01	Dibromochloromethane	10/30/2018	0.5	Y	n	u		0.50	0.22	ug/L
TB-8-102518	1833674-01	cis-1,2-Dichloroethene	10/30/2018	0.5	Y	n	u		0.50	0.27	ug/L
TB-8-102518	1833674-01	1,2-Dibromoethane	10/30/2018	0.5	Y	n	u		0.50	0.22	ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
TB-8-102518	1833674-01	Dibromomethane	10/30/2018	0.5	Y	n	u		0.50	0.23	ug/L
TB-8-102518	1833674-01	1,2-Dichlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.21	ug/L
TB-8-102518	1833674-01	1,3-Dichlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.16	ug/L
TB-8-102518	1833674-01	1,4-Dichlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-8-102518	1833674-01	Dichlorodifluoromethane	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-8-102518	1833674-01	1,1-Dichloroethane	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-8-102518	1833674-01	1,2-Dichloroethane	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-8-102518	1833674-01	1,1-Dichloroethene	10/30/2018	0.5	Y	n	u		0.50	0.27	ug/L
TB-8-102518	1833674-01	4-Chlorotoluene	10/30/2018	0.5	Y	n	u		0.50	0.093	ug/L
TB-8-102518	1833674-01	1-Chlorobutane	10/30/2018	0	Y	y	v				ug/L
TB-8-102518	1833674-01	Bromodichloromethane	10/30/2018	0.5	Y	n	u		0.50	0.20	ug/L
TB-8-102518	1833674-01	Methyl iodide	10/30/2018	2	Y	n	u	UJ	2.0	1.1	ug/L
TB-8-102518	1833674-01	Methyl isobutyl ketone	10/30/2018	10	Y	n	u		10	2.4	ug/L
TB-8-102518	1833674-01	Methyl methacrylate	10/30/2018	5	Y	n	u		5.0	1.2	ug/L
TB-8-102518	1833674-01	Pentachloroethane	10/30/2018	2	Y	n	u	UJ	2.0	0.63	ug/L
TB-8-102518	1833674-01	Propionitrile	10/30/2018	20	Y	n	u		20	6.2	ug/L
TB-8-102518	1833674-01	Tetrahydrofuran	10/30/2018	20	Y	n	u		20	5.2	ug/L
TB-8-102518	1833674-01	p- & m-Xylenes	10/30/2018	0.5	Y	n	u		0.50	0.34	ug/L
TB-8-102518	1833674-01	Methacrylonitrile	10/30/2018	10	Y	n	u		10	2.3	ug/L
TB-8-102518	1833674-01	Chloroacetonitrile	10/30/2018	0	Y	y	v				ug/L
TB-8-102518	1833674-01	2-Hexanone	10/30/2018	10	Y	n	u		10	5.0	ug/L
TB-8-102518	1833674-01	1,1-Dichloropropanone	10/30/2018	0	Y	y	v				ug/L
TB-8-102518	1833674-01	Methyl acrylate	10/30/2018	0	Y	y	v				ug/L
TB-8-102518	1833674-01	Nitrobenzene	10/30/2018	0	Y	y	v				ug/L
TB-8-102518	1833674-01	2-Nitropropane	10/30/2018	0	Y	y	v				ug/L

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Analytical Method		EPA-524.2									
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Report	Detect	Lab Qual	Val Qual	RL	MDL	Units
TB-8-102518	1833674-01	Bromoform	10/30/2018	0.5	Y	n	u		0.50	0.46	ug/L
TB-8-102518	1833674-01	Bromomethane	10/30/2018	0.5	Y	n	u	UJ	0.50	0.20	ug/L
TB-8-102518	1833674-01	Bromochloromethane	10/30/2018	0.5	Y	n	u		0.50	0.27	ug/L
TB-8-102518	1833674-01	Benzene	10/30/2018	0.5	Y	n	u		0.50	0.11	ug/L
TB-8-102518	1833674-01	Bromobenzene	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-8-102518	1833674-01	o-Xylene	10/30/2018	0.5	Y	n	u		0.50	0.13	ug/L
TB-8-102518	1833674-01	Acrylonitrile	10/30/2018	5	Y	n	u		5.0	1.5	ug/L
TB-8-102518	1833674-01	1,1,1-Trichloroethane	10/30/2018	0.5	Y	n	u		0.50	0.21	ug/L
TB-8-102518	1833674-01	1,1,2-Trichloroethane	10/30/2018	0.5	Y	n	u		0.50	0.21	ug/L
TB-8-102518	1833674-01	Trichloroethene	10/30/2018	0.5	Y	n	u		0.50	0.19	ug/L
TB-8-102518	1833674-01	Trichlorofluoromethane	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-8-102518	1833674-01	1,2,3-Trichloropropane	10/30/2018	1	Y	n	u		1.0	0.78	ug/L
TB-8-102518	1833674-01	1,1,2-Trichloro-1,2,2-trifluoroethane	10/30/2018	0.5	Y	n	u		0.50	0.19	ug/L
TB-8-102518	1833674-01	1,2,4-Trimethylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.17	ug/L
TB-8-102518	1833674-01	1,3,5-Trimethylbenzene	10/30/2018	0.5	Y	n	u		0.50	0.14	ug/L
TB-8-102518	1833674-01	Methyl ethyl ketone	10/30/2018	10	Y	n	u		10	3.3	ug/L
TB-8-102518	1833674-01	Acetone	10/30/2018	10	Y	n	u		10	6.6	ug/L
TB-8-102518	1833674-01	1,2,4-Trichlorobenzene	10/30/2018	0.5	Y	n	u		0.50	0.15	ug/L
TB-8-102518	1833674-01	Allyl chloride	10/30/2018	5	Y	n	u		5.0	0.47	ug/L
TB-8-102518	1833674-01	t-Amyl Methyl ether	10/30/2018	0.5	Y	n	u		0.50	0.19	ug/L
TB-8-102518	1833674-01	t-Butyl alcohol	10/30/2018	10	Y	n	u		10	9.4	ug/L
TB-8-102518	1833674-01	Carbon disulfide	10/30/2018	1	Y	n	u		1.0	0.48	ug/L
TB-8-102518	1833674-01	trans-1,4-Dichloro-2-butene	10/30/2018	5	Y	n	u		5.0	1.8	ug/L
TB-8-102518	1833674-01	Diethyl ether	10/30/2018	2	Y	n	u		2.0	0.33	ug/L
TB-8-102518	1833674-01	Ethyl methacrylate	10/30/2018	4	Y	n	u		4.0	1.3	ug/L



SDG: 1833674

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<b>Analytical Method</b>		EPA-524.2									
<b>Sample ID</b>	<b>Lab Sample ID</b>	<b>Chemical Name</b>	<b>Anal Date</b>	<b>Result</b>	<b>Report</b>	<b>Detect</b>	<b>Lab Qual</b>	<b>Val Qual</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
TB-8-102518	1833674-01	Ethyl t-butyl ether	10/30/2018	0.5	Y	n	u		0.50	0.32	ug/L
TB-8-102518	1833674-01	Hexachloroethane	10/30/2018	0.5	Y	n	u		0.50	0.11	ug/L
TB-8-102518	1833674-01	Vinyl chloride	10/30/2018	0.5	Y	n	u		0.50	0.18	ug/L

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<b>Analytical Method</b>		EPA-7196									
<b>Sample ID</b>	<b>Lab Sample ID</b>	<b>Chemical Name</b>	<b>Anal Date</b>	<b>Result</b>	<b>Report</b>	<b>Detect</b>	<b>Lab Qual</b>	<b>Val Qual</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
EB-8-102518	1833674-06	Hexavalent Chromium	10/25/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
MW-12-2	1833674-05	Hexavalent Chromium	10/25/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
MW-12-3	1833674-04	Hexavalent Chromium	10/25/2018	0.002	Y	n	u		0.0020	0.0007	mg/L
MW-12-4	1833674-03	Hexavalent Chromium	10/25/2018	#####	Y	y	v j		0.0020	0.0007	mg/L
MW-12-5	1833674-02	Hexavalent Chromium	10/25/2018	0.0014	Y	y	v j		0.0020	0.0007	mg/L

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LDC #: 43795

EDD POPULATION COMPLETENESS WORKSHEET

Date: 12/20/18  
 Page: 1 of 1  
 2<sup>nd</sup> Reviewer: JE

The LDC job number listed above was entered by CAF  
 Entered from Body or Summary

	EDD Process		Comments/Action
I.	EDD Completeness	-	
Ia.	- All methods present?	y	
Ib.	- All samples present/match report?	y	
Ic.	- All reported analytes present?	y	
Id.	<u>10%</u> or 100% verification of EDD?	y	
II.	EDD Preparation/Entry	-	
IIa.	- Carryover U/J?	N	
IIb.	- Reason Codes used? If so, note which codes.	y	Full Reason
IIc.	- Additional Information (QC Level, Validator, Validated Y/N, etc.) <u>Flag Classification</u>	y	A or P
III.	Reasonableness Checks	-	
IIIa.	- Do all qualified ND results have ND qualifier (e.g. UJ)?	y	
IIIb.	- Do all qualified detect results have detect qualifier (e.g. J)?	y	
IIIc.	- If reason codes are used, do all qualified results have reason code field populated, and vice versa?	y	
IIId.	- Does the detect flag require changing for blank qualifier? If so, are all U results marked ND?	N/WA	
IIIe.	- Do blank concentrations in report match EDD where data was qualified due to blank contamination?	y	
IIIf.	- Were multiple results reported due to dilutions/reanalysis? If so, were results qualified appropriately?	N/WA	
IIIg.	- Are there any discrepancies between the data packet and the EDD?	N	

Notes: \*see discrepancy sheet