DEPARTMENT OF THE ARMY
WASHINGTON AQUEDUCT
U.S. ARMY CORPS OF ENGINEERS, BALTIMORE DISTRICT
5900 MACARTHUR BOULEVARD, N.W.
WASHINGTON, D.C. 20016-2514

10 Dec 2018

Plant Operations Branch

Ms. Karen Crumlish, Branch Chief
Drinking Water Branch (3WP21)
Water Protection Division
U.S. EPA Region III
1650 Arch Street
Philadelphia, PA 19103-2029

Dear Ms. Crumlish:

Enclosed are the Washington Aqueduct's water quality data for the month of October 2018.

If you require any additional information, please contact Mr. Mel Tesema at (202) 764-2701.

Sincerely,

Thomas P. Jacobus
General Manager

Enclosure: Washington Aqueduct Water Quality Data

U.S. Army Corps of Engineers
Washington Aqueduct
5900 MacArthur Blvd., NW
Washington, DC 20016-2514

November 2018

Water Quality Data

Washington Aqueduct Laboratory Analytical Data

01 November 2018 To: 30 November 2018

Parameter	Raw Water			Dalecarlia Finished			McMillan Finished		
	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG
Alkalinity as $CaCO_3$	95	50	68	92	52	65	87	44	61
Ammonia, Total	0.07	ND	ND	0.86	0.50	0.72	0.91	0.65	0.75
Calcium	31	27	29	36	26	30	41	27	31
Conductivity	245	219	231	289	251	272	340	268	288
Fluoride	ND	ND	ND	0.69	0.55	0.62	0.75	0.60	0.68
Magnesium	7	5	6	6	5	5	7	5	6
Temperature (^oF)	57	43	48	61	46	53	64	48	56
Total Hardness as $CaCO_3$	103	91	97	109	86	97	130	89	101

ND= Non-detect or < Reporting Limit (< 0.05 mg/L for Total Ammonia and < 0.1 mg/L for Fluoride)

Parameter	Date	EPA Limit	Reporting Limit	Raw Water	Dalecarlia Finished	McMillan Finished
Dissolved Solids	11/14/18			133	166	160
Suspended Solids	11/14/18			26	< 1	< 1
Total Solids	11/14/18			159	166	160
Bromide	11/7/18		0.04	ND	ND	ND
Chloride	11/7/18		2	15	24	30
Nitrate as N	11/7/18	10	0.2	1.5	1.6	2.0
Nitrite as N	11/7/18	1	0.02	ND	ND	ND
Orthophosphate as PO_4	11/7/18		0.3	ND	See plant orthophosphate page	
Perchlorate	11/7/18*		0.05	0.29	0.29	0.39
Sulfate	11/7/18		5	13	38	43

ND= Non-detect or < Reporting Limit

All results are in mg/L except perchlorate. Perchlorate results are in ug/L.

* Raw water was sampled for perchlorate on 11/8/18.

Sodium

Date Collected	Dalecarlia Finished (mg/L)	McMillan Finished (mg/L)
11/6/18	18.0	18.8
11/13/18	20.1	17.6
11/20/18	18.9	17.5
11/27/18	16.9	17.5

Washington Aqueduct Laboratory Analytical Data

01 November 2018 To: 30 November 2018

Summary for TOC

	11/5/18	11/12/18	11/19/18	11/26/18
Raw Water Alkalinity	70	65	75	50
Raw Water Intake TOC	4.63	3.70	2.67	4.59
% Required Removal	35.0	25.0	25.0	45.0
#12 Dalecarlia Settled TOC	3.39	2.20	1.77	1.95
#15 Dalecarlia Filtered TOC	2.44	1.98	1.63	1.81
% Dalecarlia Removal	47.3	46.5	39.0	60.6
Removal Ratio	1.35	1.86	1.56	1.35
F McMillan Settled TOC	2.24	2.00	1.75	1.74
G McMillan Filtered TOC	2.01	1.92	1.63	1.67
% McMillan Removal	56.6	48.1	39.0	63.6
Removal Ratio	1.62	1.92	1.56	1.41

All results are in mg/L unless otherwise noted

NOTE: Little Falls was not in service during days of source water sample collection.

TOC removals are calculated as follows:
Dalecarlia removals are based on samples collected 2 days after Great Falls sample collection.
McMillan removals are based on samples collected 7 days after Great Falls sample collection.

TOC Removal Compliance Calculations. Compliance is achieved when RAA removal ratio $\geq$ 1

2018 Dalecarlia Month	Removal Ratio	Quarterly Avg. Ratio	RAA Ratio
January	1.53		
February	1.52		
March	1.27	1.44	1.33
April	1.47		
May	1.27		
June	1.24	1.33	1.32
July	1.02		
August	1.61		
September	1.62	1.42	1.37
October	1.38		
November	1.53		
December			

2018 McMillan Month	Removal Ratio	Quarterly Avg. Ratio	RAA Ratio
January	1.22		
February	1.55		
March	1.27	1.35	1.41
April	1.42		
May	1.04		
June	1.39	1.28	1.41
July	1.24		
August	1.62		
September	1.76	1.54	1.45
October	1.64		
November	1.63		
December			

Washington Aqueduct Laboratory Analytical Data

01 November 2018 To: 30 November 2018

Haloacetic Acids Summary by Method EPA 552.2

Sample Location	Dalecarlia Finished	McMillan Finished
Sample Date	11/14/2018	11/14/2018
Analysis Date	11/20/2018	11/20/2018
Units	ug/L	ug/L
Dibromoacetic Acid	ND	ND
Dichloroacetic Acid	8.8	10.4
Monobromoacetic Acid	ND	ND
Monochloroacetic Acid	1.0	ND
Trichloracetic Acid	10.7	15.4
Total HAA (5)	21	26
Bromochloroacetic Acid**	1.7	2.1

**Bromochloroacetic acid is unregulated and is included for informational purposes only.

2018 Washington Aqueduct Yearly Haloacetic Acids Data (ug/L)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	LRA*
Dalecarlia Finished		21			27			36			21		26
McMillan Finished		17			29			42			26		29

* Location Annual Running Average

Washington Aqueduct Laboratory Analytical Data

01 November 2018 To: 30 November 2018

Trihalomethane Data by EPA Method 524.2

Sample Location	Dalecarlia Finished	McMillan Finished
Sample Date	11/14/2018	11/14/2018
Analysis Date	11/28/2018	11/28/2018
Units	ug/L	ug/L
Chloroform	14	22
Bromodichloromethane	5.0	6.4
Chlorodibromomethane	0.70	0.97
Bromoform	ND	ND
Total THMs	20	29

Reporting limit is 0.5 ug/L

2018 Washington Aqueduct Yearly Trihalomethane Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	LRA*
Dalecarlia Finished	22	19	16	25	34	37	49	48	46	40	20		31
McMillan Finished	20	17	17	25	42	51	58	61	51	37	29		38

*LRA = Annual Location Running Average

Washington Aqueduct Laboratory Analytical Data

01 November 2018 To: 30 November 2018

Summary for Metals Analysis by Method EPA 200.8

Parameter (all results are in mg/L)	EPA Limit	Reporting Limit	Raw	Dalecarlia Finished	McMillan Finished
Aluminum		0.01	0.34	0.031	0.026
Antimony	0.006	0.0002	ND	ND	ND
Arsenic	0.01	0.0002	ND	ND	ND
Barium	2	0.0002	0.035	0.030	0.035
Beryllium	0.004	0.0002	ND	ND	ND
Cadmium	0.005	0.0002	ND	ND	ND
Chromium	0.1	0.002	ND	ND	ND
Copper		0.0002	0.002	0.001	0.008
Lead		0.0002	0.0007	ND	ND
Lithium		0.0002	0.002	0.002	0.001
Manganese		0.0002	0.056	0.0009	ND
Mercury	0.002	0.0002	no data	ND	ND
Nickel		0.0005	0.001	0.0009	0.0007
Selenium	0.05	0.001	ND	ND	ND
Silver		0.01	ND	ND	ND
Strontium		0.0002	0.101	0.102	0.153
Thallium	0.002	0.0005	ND	ND	ND
Uranium	0.03	0.0002	ND	ND	ND
Zinc		0.0005	0.003	0.0007	ND

ND = Non-detect or < Reporting Limit

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Laboratory Hits

Report: 774158
Project: VOC
Group: VOC

U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
11/16/2018 1627

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
	201811160494	**2H-1 BKJV**				
11/26/2018 23:47	Bromodichloromethane		7.9		ug/L	0.5
11/26/2018 23:47	Chlorodibromomethane		1.2		ug/L	0.5
11/26/2018 23:47	Chloroform (Trichloromethane)		26		ug/L	0.5
11/26/2018 23:47	Total THM		35	80	ug/L	0.5
	201811160495	**2H-27**				
11/27/2018 00:10	Bromodichloromethane		9.2		ug/L	0.5
11/27/2018 00:10	Chlorodibromomethane		1.3		ug/L	0.5
11/27/2018 00:10	Chloroform (Trichloromethane)		29		ug/L	0.5
11/27/2018 00:10	Total THM		40	80	ug/L	0.5
	201811160496	**A1 H-3 BKTV**				
11/27/2018 00:34	Bromodichloromethane		7.5		ug/L	0.5
11/27/2018 00:34	Chlorodibromomethane		1.2		ug/L	0.5
11/27/2018 00:34	Chloroform (Trichloromethane)		28		ug/L	0.5
11/27/2018 00:34	Total THM		37	80	ug/L	0.5
	201811160497	**IH-9**				
11/27/2018 00:57	Bromodichloromethane		7.3		ug/L	0.5
11/27/2018 00:57	Chlorodibromomethane		1.1		ug/L	0.5
11/27/2018 00:57	Chloroform (Trichloromethane)		25		ug/L	0.5
11/27/2018 00:57	Total THM		33	80	ug/L	0.5
	201811160498	**L-4**				
11/27/2018 01:21	Bromodichloromethane		5.9		ug/L	0.5
11/27/2018 01:21	Chlorodibromomethane		0.76		ug/L	0.5
11/27/2018 01:21	Chloroform (Trichloromethane)		20		ug/L	0.5
11/27/2018 01:21	Total THM		27	80	ug/L	0.5
	201811160499	**3H-13**				
11/27/2018 01:44	Bromodichloromethane		6.8		ug/L	0.5
11/27/2018 01:44	Chloroform (Trichloromethane)		27		ug/L	0.5
11/27/2018 01:44	Total THM		34	80	ug/L	0.5
	201811160500	**AIH-8**				
11/28/2018 05:28	Bromodichloromethane		6.6		ug/L	0.5
11/28/2018 05:28	Chlorodibromomethane		0.88		ug/L	0.5
11/28/2018 05:28	Chloroform (Trichloromethane)		25		ug/L	0.5
11/28/2018 05:28	Total THM		32	80	ug/L	0.5

SUMMARY OF POSITIVE DATA ONLY

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Laboratory Hits

Report: 774158
Project: VOC
Group: VOC

U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
11/16/2018 1627

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
	201811160501	**L-12**				
11/28/2018 05:51	Bromodichloromethane		6.8		ug/L	0.5
11/28/2018 05:51	Chlorodibromomethane		0.96		ug/L	0.5
11/28/2018 05:51	Chloroform (Trichloromethane)		23		ug/L	0.5
11/28/2018 05:51	Total THM		31	80	ug/L	0.5
	201811160502	**L-24 DBPR**				
11/28/2018 06:14	Bromodichloromethane		7.3		ug/L	0.5
11/28/2018 06:14	Chloroform (Trichloromethane)		28		ug/L	0.5
11/28/2018 06:14	Total THM		35	80	ug/L	0.5
	201811160503	**IH-23**				
11/28/2018 09:21	Bromodichloromethane		8.7		ug/L	0.5
11/28/2018 09:21	Chloroform (Trichloromethane)		31		ug/L	0.5
11/28/2018 09:21	Total THM		40	80	ug/L	0.5
	201811160504	**3H-4 BKJV**				
11/28/2018 09:45	Bromodichloromethane		6.0		ug/L	0.5
11/28/2018 09:45	Chlorodibromomethane		0.65		ug/L	0.5
11/28/2018 09:45	Chloroform (Trichloromethane)		25		ug/L	0.5
11/28/2018 09:45	Total THM		32	80	ug/L	0.5
	201811160505	**4H-8**				
11/28/2018 10:08	Bromodichloromethane		6.0		ug/L	0.5
11/28/2018 10:08	Chloroform (Trichloromethane)		19		ug/L	0.5
11/28/2018 10:08	Total THM		25	80	ug/L	0.5
	201811160509	**Dale 18**				
11/28/2018 10:55	Bromodichloromethane		5.0		ug/L	0.5
11/28/2018 10:55	Chlorodibromomethane		0.70		ug/L	0.5
11/28/2018 10:55	Chloroform (Trichloromethane)		14		ug/L	0.5
11/28/2018 10:55	Total THM		20	80	ug/L	0.5
	201811160510	**McMillan JS**				
11/28/2018 11:19	Bromodichloromethane		6.4		ug/L	0.5
11/28/2018 11:19	Chlorodibromomethane		0.97		ug/L	0.5
11/28/2018 11:19	Chloroform (Trichloromethane)		22		ug/L	0.5
11/28/2018 11:19	Total THM		29	80	ug/L	0.5

SUMMARY OF POSITIVE DATA ONLY

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Laboratory Data

Report: 774158
Project: VOC
Group: VOC

U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
11/16/2018 1627

2H-1 BKJV (201811160494) **Sampled on 11/13/2018 1350**

EPA 524.2 - Volatile Organics by GCMS

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	1,1,1,2-Tetrachloroethane	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	1,1,1-Trichloroethane	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	1,1,2,2-Tetrachloroethane	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	1,1,2-Trichloroethane	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	1,1-Dichloroethane	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	1,1-Dichloroethylene	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	1,1-Dichloropropene	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	1,2,3-Trichlorobenzene	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	1,2,3-Trichloropropane	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	1,2,4-Trichlorobenzene	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	1,2,4-Trimethylbenzene	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	1,2-Dichloroethane	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	1,2-Dichloropropane	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	1,3,5-Trimethylbenzene	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	1,3-Dichloropropane	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	2,2-Dichloropropane	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	2-Butanone (MEK)	ND	ug/L	5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	Benzene	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	Bromobenzene	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	Bromochloromethane	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	Bromodichloromethane	7.9	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	Bromoethane	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	Bromoform	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	Bromomethane (Methyl Bromide)	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	Carbon disulfide	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	Carbon Tetrachloride	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	Chlorobenzene	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	Chlorodibromomethane	1.2	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	Chloroethane	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	Chloroform (Trichloromethane)	26	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	Chloromethane(Methyl Chloride)	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	cis-1,2-Dichloroethylene	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	cis-1,3-Dichloropropene	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	Dibromomethane	ND	ug/L	0.5	1

Rounding on totals after summation.
(c) - indicates calculated results

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Laboratory Data

Report: 774158
Project: VOC
Group: VOC

U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
11/16/2018 1627

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	Dichlorodifluoromethane	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	Dichloromethane	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	Di-isopropyl ether	ND	ug/L	3	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	Ethyl benzene	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	Hexachlorobutadiene	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	Isopropylbenzene	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	m,p-Xylenes	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	m-Dichlorobenzene (1,3-DCB)	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	Methyl Tert-butyl ether (MTBE)	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	Naphthalene	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	n-Butylbenzene	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	n-Propylbenzene	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	o-Chlorotoluene	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	o-Dichlorobenzene (1,2-DCB)	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	o-Xylene	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	p-Chlorotoluene	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	p-Dichlorobenzene (1,4-DCB)	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	p-Isopropyltoluene	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	sec-Butylbenzene	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	Styrene	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	tert-amyl Methyl Ether	ND	ug/L	3	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	tert-Butyl Ethyl Ether	ND	ug/L	3	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	tert-Butylbenzene	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	Tetrachloroethylene (PCE)	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	Toluene	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	Total 1,3-Dichloropropene	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	Total THM	35	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	Total xylenes	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	trans-1,2-Dichloroethylene	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	trans-1,3-Dichloropropene	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	Trichloroethylene (TCE)	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	Trichlorofluoromethane	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	Trichlorotrifluoroethane(Freon 113)	ND	ug/L	0.5	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	Vinyl chloride (VC)	ND	ug/L	0.3	1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	1,2-Dichloroethane-d4	99	%		1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	4-Bromofluorobenzene	104	%		1
11/26/18	11/26/18 23:47	1133736	1133739	(EPA 524.2)	Toluene-d8	99	%		1

2H-27 (201811160495) **Sampled on 11/13/2018 1313**

Rounding on totals after summation.
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Fax: (866) 988-3757
1 800 566 LABS (1 800 566 5227)

Laboratory Data

Report: 774158
Project: VOC
Group: VOC

U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
11/16/2018 1627

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
		EPA 524.2 - Volatile Organics by GCMS							
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	1,1,1,2-Tetrachloroethane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	1,1,1-Trichloroethane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	1,1,2,2-Tetrachloroethane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	1,1,2-Trichloroethane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	1,1-Dichloroethane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	1,1-Dichloroethylene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	1,1-Dichloropropene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	1,2,3-Trichlorobenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	1,2,3-Trichloropropane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	1,2,4-Trichlorobenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	1,2,4-Trimethylbenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	1,2-Dichloroethane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	1,2-Dichloropropane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	1,3,5-Trimethylbenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	1,3-Dichloropropane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	2,2-Dichloropropane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	2-Butanone (MEK)	ND	ug/L	5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	Benzene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	Bromobenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	Bromochloromethane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	Bromodichloromethane	9.2	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	Bromoethane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	Bromoform	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	Bromomethane (Methyl Bromide)	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	Carbon disulfide	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	Carbon Tetrachloride	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	Chlorobenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	Chlorodibromomethane	1.3	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	Chloroethane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	Chloroform (Trichloromethane)	29	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	Chloromethane(Methyl Chloride)	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	cis-1,2-Dichloroethylene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	cis-1,3-Dichloropropene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	Dibromomethane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	Dichlorodifluoromethane	ND	ug/L	0.5	1

Rounding on totals after summation.
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Fax: (866) 988-3757
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Laboratory Data

Report: 774158
Project: VOC
Group: VOC

U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
11/16/2018 1627

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	Dichloromethane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	Di-isopropyl ether	ND	ug/L	3	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	Ethyl benzene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	Hexachlorobutadiene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	Isopropylbenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	m,p-Xylenes	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	m-Dichlorobenzene (1,3-DCB)	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	Methyl Tert-butyl ether (MTBE)	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	Naphthalene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	n-Butylbenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	n-Propylbenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	o-Chlorotoluene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	o-Dichlorobenzene (1,2-DCB)	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	o-Xylene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	p-Chlorotoluene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	p-Dichlorobenzene (1,4-DCB)	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	p-Isopropyltoluene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	sec-Butylbenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	Styrene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	tert-amyl Methyl Ether	ND	ug/L	3	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	tert-Butyl Ethyl Ether	ND	ug/L	3	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	tert-Butylbenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	Tetrachloroethylene (PCE)	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	Toluene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	Total 1,3-Dichloropropene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	Total THM	40	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	Total xylenes	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	trans-1,2-Dichloroethylene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	trans-1,3-Dichloropropene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	Trichloroethylene (TCE)	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	Trichlorofluoromethane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	Trichlorotrifluoroethane(Freon 113)	ND	ug/L	0.5	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	Vinyl chloride (VC)	ND	ug/L	0.3	1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	1,2-Dichloroethane-d4	102	%		1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	4-Bromofluorobenzene	113	%		1
11/26/18	11/27/18 00:10	1133736	1133739	(EPA 524.2)	Toluene-d8	101	%		1

A1 H-3 BKTV (201811160496) **Sampled on 11/13/2018 1225**

Rounding on totals after summation.
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Fax: (866) 988-3757
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Laboratory Data

Report: 774158
Project: VOC
Group: VOC

U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
11/16/2018 1627

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
		EPA 524.2 - Volatile Organics by GCMS							
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	1,1,1,2-Tetrachloroethane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	1,1,1-Trichloroethane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	1,1,2,2-Tetrachloroethane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	1,1,2-Trichloroethane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	1,1-Dichloroethane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	1,1-Dichloroethylene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	1,1-Dichloropropene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	1,2,3-Trichlorobenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	1,2,3-Trichloropropane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	1,2,4-Trichlorobenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	1,2,4-Trimethylbenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	1,2-Dichloroethane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	1,2-Dichloropropane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	1,3,5-Trimethylbenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	1,3-Dichloropropane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	2,2-Dichloropropane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	2-Butanone (MEK)	ND	ug/L	5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	Benzene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	Bromobenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	Bromochloromethane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	Bromodichloromethane	7.5	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	Bromoethane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	Bromoform	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	Bromomethane (Methyl Bromide)	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	Carbon disulfide	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	Carbon Tetrachloride	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	Chlorobenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	Chlorodibromomethane	1.2	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	Chloroethane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	Chloroform (Trichloromethane)	28	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	Chloromethane(Methyl Chloride)	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	cis-1,2-Dichloroethylene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	cis-1,3-Dichloropropene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	Dibromomethane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	Dichlorodifluoromethane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	Dichloromethane	ND	ug/L	0.5	1

Rounding on totals after summation.
(c) - indicates calculated results

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Laboratory Data

Report: 774158
Project: VOC
Group: VOC

U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
11/16/2018 1627

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	Di-isopropyl ether	ND	ug/L	3	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	Ethyl benzene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	Hexachlorobutadiene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	Isopropylbenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	m,p-Xylenes	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	m-Dichlorobenzene (1,3-DCB)	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	Methyl Tert-butyl ether (MTBE)	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	Naphthalene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	n-Butylbenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	n-Propylbenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	o-Chlorotoluene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	o-Dichlorobenzene (1,2-DCB)	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	o-Xylene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	p-Chlorotoluene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	p-Dichlorobenzene (1,4-DCB)	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	p-Isopropyltoluene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	sec-Butylbenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	Styrene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	tert-amyl Methyl Ether	ND	ug/L	3	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	tert-Butyl Ethyl Ether	ND	ug/L	3	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	tert-Butylbenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	Tetrachloroethylene (PCE)	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	Toluene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	Total 1,3-Dichloropropene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	Total THM	37	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	Total xylenes	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	trans-1,2-Dichloroethylene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	trans-1,3-Dichloropropene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	Trichloroethylene (TCE)	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	Trichlorofluoromethane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	Trichlorotrifluoroethane(Freon 113)	ND	ug/L	0.5	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	Vinyl chloride (VC)	ND	ug/L	0.3	1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	1,2-Dichloroethane-d4	99	%		1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	4-Bromofluorobenzene	106	%		1
11/26/18	11/27/18 00:34	1133736	1133739	(EPA 524.2)	Toluene-d8	95	%		1

IH-9 (201811160497) **Sampled on 11/13/2018 1145**

EPA 524.2 - Volatile Organics by GCMS

Rounding on totals after summation.
(c) - indicates calculated results

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Fax: (866) 988-3757
1 800 566 LABS (1 800 566 5227)

Laboratory Data

Report: 774158
Project: VOC
Group: VOC

U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
11/16/2018 1627

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	1,1,1,2-Tetrachloroethane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	1,1,1-Trichloroethane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	1,1,2,2-Tetrachloroethane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	1,1,2-Trichloroethane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	1,1-Dichloroethane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	1,1-Dichloroethylene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	1,1-Dichloropropene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	1,2,3-Trichlorobenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	1,2,3-Trichloropropane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	1,2,4-Trichlorobenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	1,2,4-Trimethylbenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	1,2-Dichloroethane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	1,2-Dichloropropane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	1,3,5-Trimethylbenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	1,3-Dichloropropane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	2,2-Dichloropropane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	2-Butanone (MEK)	ND	ug/L	5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	Benzene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	Bromobenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	Bromochloromethane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	Bromodichloromethane	7.3	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	Bromoethane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	Bromoform	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	Bromomethane (Methyl Bromide)	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	Carbon disulfide	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	Carbon Tetrachloride	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	Chlorobenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	Chlorodibromomethane	1.1	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	Chloroethane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	Chloroform (Trichloromethane)	25	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	Chloromethane(Methyl Chloride)	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	cis-1,2-Dichloroethylene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	cis-1,3-Dichloropropene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	Dibromomethane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	Dichlorodifluoromethane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	Dichloromethane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	Di-isopropyl ether	ND	ug/L	3	1

Rounding on totals after summation.
(c) - indicates calculated results

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Fax: (866) 988-3757
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Laboratory Data

Report: 774158
Project: VOC
Group: VOC

U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
11/16/2018 1627

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	Ethyl benzene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	Hexachlorobutadiene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	Isopropylbenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	m,p-Xylenes	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	m-Dichlorobenzene (1,3-DCB)	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	Methyl Tert-butyl ether (MTBE)	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	Naphthalene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	n-Butylbenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	n-Propylbenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	o-Chlorotoluene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	o-Dichlorobenzene (1,2-DCB)	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	o-Xylene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	p-Chlorotoluene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	p-Dichlorobenzene (1,4-DCB)	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	p-Isopropyltoluene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	sec-Butylbenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	Styrene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	tert-amyl Methyl Ether	ND	ug/L	3	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	tert-Butyl Ethyl Ether	ND	ug/L	3	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	tert-Butylbenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	Tetrachloroethylene (PCE)	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	Toluene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	Total 1,3-Dichloropropene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	Total THM	33	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	Total xylenes	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	trans-1,2-Dichloroethylene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	trans-1,3-Dichloropropene	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	Trichloroethylene (TCE)	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	Trichlorofluoromethane	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	Trichlorotrifluoroethane(Freon 113)	ND	ug/L	0.5	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	Vinyl chloride (VC)	ND	ug/L	0.3	1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	1,2-Dichloroethane-d4	104	%		1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	4-Bromofluorobenzene	108	%		1
11/26/18	11/27/18 00:57	1133736	1133739	(EPA 524.2)	Toluene-d8	98	%		1

L-4 (201811160498) **Sampled on 11/13/2018 1055**

EPA 524.2 - Volatile Organics by GCMS

11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	1,1,1,2-Tetrachloroethane	ND	ug/L	0.5	1

Rounding on totals after summation.
(c) - indicates calculated results

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Laboratory Data

Report: 774158
Project: VOC
Group: VOC

U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
11/16/2018 1627

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	1,1,1-Trichloroethane	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	1,1,2,2-Tetrachloroethane	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	1,1,2-Trichloroethane	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	1,1-Dichloroethane	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	1,1-Dichloroethylene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	1,1-Dichloropropene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	1,2,3-Trichlorobenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	1,2,3-Trichloropropane	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	1,2,4-Trichlorobenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	1,2,4-Trimethylbenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	1,2-Dichloroethane	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	1,2-Dichloropropane	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	1,3,5-Trimethylbenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	1,3-Dichloropropane	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	2,2-Dichloropropane	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	2-Butanone (MEK)	ND	ug/L	5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	Benzene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	Bromobenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	Bromochloromethane	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	Bromodichloromethane	5.9	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	Bromoethane	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	Bromoform	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	Bromomethane (Methyl Bromide)	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	Carbon disulfide	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	Carbon Tetrachloride	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	Chlorobenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	Chlorodibromomethane	0.76	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	Chloroethane	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	Chloroform (Trichloromethane)	20	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	Chloromethane(Methyl Chloride)	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	cis-1,2-Dichloroethylene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	cis-1,3-Dichloropropene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	Dibromomethane	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	Dichlorodifluoromethane	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	Dichloromethane	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	Di-isopropyl ether	ND	ug/L	3	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	Ethyl benzene	ND	ug/L	0.5	1

Rounding on totals after summation.
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Laboratory Data

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Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
11/16/2018 1627

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	Hexachlorobutadiene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	Isopropylbenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	m,p-Xylenes	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	m-Dichlorobenzene (1,3-DCB)	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	Methyl Tert-butyl ether (MTBE)	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	Naphthalene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	n-Butylbenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	n-Propylbenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	o-Chlorotoluene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	o-Dichlorobenzene (1,2-DCB)	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	o-Xylene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	p-Chlorotoluene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	p-Dichlorobenzene (1,4-DCB)	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	p-Isopropyltoluene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	sec-Butylbenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	Styrene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	tert-amyl Methyl Ether	ND	ug/L	3	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	tert-Butyl Ethyl Ether	ND	ug/L	3	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	tert-Butylbenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	Tetrachloroethylene (PCE)	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	Toluene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	Total 1,3-Dichloropropene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	Total THM	27	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	Total xylenes	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	trans-1,2-Dichloroethylene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	trans-1,3-Dichloropropene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	Trichloroethylene (TCE)	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	Trichlorofluoromethane	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	Trichlorotrifluoroethane(Freon 113)	ND	ug/L	0.5	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	Vinyl chloride (VC)	ND	ug/L	0.3	1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	1,2-Dichloroethane-d4	101	%		1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	4-Bromofluorobenzene	108	%		1
11/26/18	11/27/18 01:21	1133736	1133739	(EPA 524.2)	Toluene-d8	93	%		1

3H-13 (201811160499) **Sampled on 11/13/2018 1003**

EPA 524.2 - Volatile Organics by GCMS

11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	1,1,1,2-Tetrachloroethane	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	1,1,1-Trichloroethane	ND	ug/L	0.5	1

Rounding on totals after summation.
(c) - indicates calculated results

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Tel: (626) 386-1100
Fax: (866) 988-3757
1 800 566 LABS (1 800 566 5227)

Laboratory Data

Report: 774158
Project: VOC
Group: VOC

U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
11/16/2018 1627

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	1,1,2,2-Tetrachloroethane	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	1,1,2-Trichloroethane	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	1,1-Dichloroethane	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	1,1-Dichloroethylene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	1,1-Dichloropropene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	1,2,3-Trichlorobenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	1,2,3-Trichloropropane	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	1,2,4-Trichlorobenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	1,2,4-Trimethylbenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	1,2-Dichloroethane	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	1,2-Dichloropropane	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	1,3,5-Trimethylbenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	1,3-Dichloropropane	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	2,2-Dichloropropane	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	2-Butanone (MEK)	ND	ug/L	5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	Benzene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	Bromobenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	Bromochloromethane	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	Bromodichloromethane	6.8	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	Bromoethane	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	Bromoform	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	Bromomethane (Methyl Bromide)	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	Carbon disulfide	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	Carbon Tetrachloride	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	Chlorobenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	Chlorodibromomethane	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	Chloroethane	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	Chloroform (Trichloromethane)	27	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	Chloromethane(Methyl Chloride)	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	cis-1,2-Dichloroethylene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	cis-1,3-Dichloropropene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	Dibromomethane	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	Dichlorodifluoromethane	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	Dichloromethane	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	Di-isopropyl ether	ND	ug/L	3	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	Ethyl benzene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	Hexachlorobutadiene	ND	ug/L	0.5	1

Rounding on totals after summation.
(c) - indicates calculated results

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Tel: (626) 386-1100
Fax: (866) 988-3757
1 800 566 LABS (1 800 566 5227)

Laboratory Data

Report: 774158
Project: VOC
Group: VOC

U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
11/16/2018 1627

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	Isopropylbenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	m,p-Xylenes	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	m-Dichlorobenzene (1,3-DCB)	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	Methyl Tert-butyl ether (MTBE)	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	Naphthalene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	n-Butylbenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	n-Propylbenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	o-Chlorotoluene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	o-Dichlorobenzene (1,2-DCB)	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	o-Xylene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	p-Chlorotoluene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	p-Dichlorobenzene (1,4-DCB)	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	p-Isopropyltoluene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	sec-Butylbenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	Styrene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	tert-amyl Methyl Ether	ND	ug/L	3	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	tert-Butyl Ethyl Ether	ND	ug/L	3	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	tert-Butylbenzene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	Tetrachloroethylene (PCE)	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	Toluene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	Total 1,3-Dichloropropene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	Total THM	34	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	Total xylenes	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	trans-1,2-Dichloroethylene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	trans-1,3-Dichloropropene	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	Trichloroethylene (TCE)	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	Trichlorofluoromethane	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	Trichlorotrifluoroethane(Freon 113)	ND	ug/L	0.5	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	Vinyl chloride (VC)	ND	ug/L	0.3	1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	1,2-Dichloroethane-d4	98	%		1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	4-Bromofluorobenzene	105	%		1
11/26/18	11/27/18 01:44	1133736	1133739	(EPA 524.2)	Toluene-d8	99	%		1

AIH-8 (201811160500) **Sampled on 11/14/2018 1300**

EPA 524.2 - Volatile Organics by GCMS

11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	1,1,1,2-Tetrachloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	1,1,1-Trichloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	1,1,2,2-Tetrachloroethane	ND	ug/L	0.5	1

Rounding on totals after summation.
(c) - indicates calculated results

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1 800 566 LABS (1 800 566 5227)

Laboratory Data

Report: 774158
Project: VOC
Group: VOC

U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
11/16/2018 1627

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	1,1,2-Trichloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	1,1-Dichloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	1,1-Dichloroethylene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	1,1-Dichloropropene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	1,2,3-Trichlorobenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	1,2,3-Trichloropropane	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	1,2,4-Trichlorobenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	1,2,4-Trimethylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	1,2-Dichloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	1,2-Dichloropropane	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	1,3,5-Trimethylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	1,3-Dichloropropane	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	2,2-Dichloropropane	ND (R7)	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	2-Butanone (MEK)	ND	ug/L	5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	Benzene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	Bromobenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	Bromochloromethane	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	Bromodichloromethane	6.6	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	Bromoethane	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	Bromoform	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	Bromomethane (Methyl Bromide)	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	Carbon disulfide	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	Carbon Tetrachloride	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	Chlorobenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	Chlorodibromomethane	0.88	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	Chloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	Chloroform (Trichloromethane)	25	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	Chloromethane(Methyl Chloride)	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	cis-1,2-Dichloroethylene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	cis-1,3-Dichloropropene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	Dibromomethane	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	Dichlorodifluoromethane	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	Dichloromethane	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	Di-isopropyl ether	ND	ug/L	3	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	Ethyl benzene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	Hexachlorobutadiene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	Isopropylbenzene	ND	ug/L	0.5	1

Rounding on totals after summation.
(c) - indicates calculated results

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Fax: (866) 988-3757
1 800 566 LABS (1 800 566 5227)

Laboratory Data

Report: 774158
Project: VOC
Group: VOC

U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
11/16/2018 1627

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	m,p-Xylenes	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	m-Dichlorobenzene (1,3-DCB)	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	Methyl Tert-butyl ether (MTBE)	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	Naphthalene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	n-Butylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	n-Propylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	o-Chlorotoluene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	o-Dichlorobenzene (1,2-DCB)	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	o-Xylene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	p-Chlorotoluene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	p-Dichlorobenzene (1,4-DCB)	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	p-Isopropyltoluene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	sec-Butylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	Styrene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	tert-amyl Methyl Ether	ND	ug/L	3	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	tert-Butyl Ethyl Ether	ND	ug/L	3	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	tert-Butylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	Tetrachloroethylene (PCE)	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	Toluene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	Total 1,3-Dichloropropene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	Total THM	32	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	Total xylenes	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	trans-1,2-Dichloroethylene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	trans-1,3-Dichloropropene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	Trichloroethylene (TCE)	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	Trichlorofluoromethane	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	Trichlorotrifluoroethane(Freon 113)	ND	ug/L	0.5	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	Vinyl chloride (VC)	ND	ug/L	0.3	1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	1,2-Dichloroethane-d4	104	%		1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	4-Bromofluorobenzene	121	%		1
11/27/18	11/28/18 05:28	1134069	1134074	(EPA 524.2)	Toluene-d8	96	%		1

L-12 (201811160501) **Sampled on 11/14/2018 1225**

EPA 524.2 - Volatile Organics by GCMS

11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	1,1,1,2-Tetrachloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	1,1,1-Trichloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	1,1,2,2-Tetrachloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	1,1,2-Trichloroethane	ND	ug/L	0.5	1

Rounding on totals after summation.
(c) - indicates calculated results

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Laboratory Data

Report: 774158
Project: VOC
Group: VOC

U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
11/16/2018 1627

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	1,1-Dichloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	1,1-Dichloroethylene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	1,1-Dichloropropene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	1,2,3-Trichlorobenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	1,2,3-Trichloropropane	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	1,2,4-Trichlorobenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	1,2,4-Trimethylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	1,2-Dichloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	1,2-Dichloropropane	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	1,3,5-Trimethylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	1,3-Dichloropropane	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	2,2-Dichloropropane	ND (R7)	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	2-Butanone (MEK)	ND	ug/L	5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	Benzene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	Bromobenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	Bromochloromethane	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	Bromodichloromethane	6.8	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	Bromoethane	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	Bromoform	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	Bromomethane (Methyl Bromide)	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	Carbon disulfide	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	Carbon Tetrachloride	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	Chlorobenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	Chlorodibromomethane	0.96	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	Chloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	Chloroform (Trichloromethane)	23	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	Chloromethane(Methyl Chloride)	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	cis-1,2-Dichloroethylene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	cis-1,3-Dichloropropene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	Dibromomethane	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	Dichlorodifluoromethane	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	Dichloromethane	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	Di-isopropyl ether	ND	ug/L	3	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	Ethyl benzene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	Hexachlorobutadiene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	Isopropylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	m,p-Xylenes	ND	ug/L	0.5	1

Rounding on totals after summation.
(c) - indicates calculated results

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Laboratory Data

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U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
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Washington, DC 20016

Samples Received on:
11/16/2018 1627

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	m-Dichlorobenzene (1,3-DCB)	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	Methyl Tert-butyl ether (MTBE)	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	Naphthalene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	n-Butylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	n-Propylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	o-Chlorotoluene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	o-Dichlorobenzene (1,2-DCB)	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	o-Xylene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	p-Chlorotoluene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	p-Dichlorobenzene (1,4-DCB)	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	p-Isopropyltoluene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	sec-Butylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	Styrene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	tert-amyl Methyl Ether	ND	ug/L	3	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	tert-Butyl Ethyl Ether	ND	ug/L	3	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	tert-Butylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	Tetrachloroethylene (PCE)	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	Toluene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	Total 1,3-Dichloropropene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	Total THM	31	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	Total xylenes	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	trans-1,2-Dichloroethylene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	trans-1,3-Dichloropropene	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	Trichloroethylene (TCE)	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	Trichlorofluoromethane	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	Trichlorotrifluoroethane(Freon 113)	ND	ug/L	0.5	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	Vinyl chloride (VC)	ND	ug/L	0.3	1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	1,2-Dichloroethane-d4	105	%		1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	4-Bromofluorobenzene	124	%		1
11/27/18	11/28/18 05:51	1134069	1134074	(EPA 524.2)	Toluene-d8	97	%		1

L-24 DBPR (201811160502) **Sampled on 11/14/2018 1115**

EPA 524.2 - Volatile Organics by GCMS

11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	1,1,1,2-Tetrachloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	1,1,1-Trichloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	1,1,2,2-Tetrachloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	1,1,2-Trichloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	1,1-Dichloroethane	ND	ug/L	0.5	1

Rounding on totals after summation.
(c) - indicates calculated results

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Laboratory Data

Report: 774158
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Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
11/16/2018 1627

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	1,1-Dichloroethylene	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	1,1-Dichloropropene	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	1,2,3-Trichlorobenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	1,2,3-Trichloropropane	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	1,2,4-Trichlorobenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	1,2,4-Trimethylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	1,2-Dichloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	1,2-Dichloropropane	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	1,3,5-Trimethylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	1,3-Dichloropropane	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	2,2-Dichloropropane	ND (R7)	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	2-Butanone (MEK)	ND	ug/L	5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	Benzene	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	Bromobenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	Bromochloromethane	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	Bromodichloromethane	7.3	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	Bromoethane	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	Bromoform	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	Bromomethane (Methyl Bromide)	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	Carbon disulfide	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	Carbon Tetrachloride	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	Chlorobenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	Chlorodibromomethane	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	Chloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	Chloroform (Trichloromethane)	28	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	Chloromethane(Methyl Chloride)	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	cis-1,2-Dichloroethylene	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	cis-1,3-Dichloropropene	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	Dibromomethane	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	Dichlorodifluoromethane	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	Dichloromethane	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	Di-isopropyl ether	ND	ug/L	3	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	Ethyl benzene	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	Hexachlorobutadiene	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	Isopropylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	m,p-Xylenes	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	m-Dichlorobenzene (1,3-DCB)	ND	ug/L	0.5	1

Rounding on totals after summation.
(c) - indicates calculated results

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Fax: (866) 988-3757
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Laboratory Data

Report: 774158
Project: VOC
Group: VOC

U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
11/16/2018 1627

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	Methyl Tert-butyl ether (MTBE)	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	Naphthalene	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	n-Butylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	n-Propylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	o-Chlorotoluene	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	o-Dichlorobenzene (1,2-DCB)	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	o-Xylene	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	p-Chlorotoluene	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	p-Dichlorobenzene (1,4-DCB)	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	p-Isopropyltoluene	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	sec-Butylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	Styrene	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	tert-amyl Methyl Ether	ND	ug/L	3	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	tert-Butyl Ethyl Ether	ND	ug/L	3	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	tert-Butylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	Tetrachloroethylene (PCE)	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	Toluene	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	Total 1,3-Dichloropropene	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	Total THM	35	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	Total xylenes	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	trans-1,2-Dichloroethylene	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	trans-1,3-Dichloropropene	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	Trichloroethylene (TCE)	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	Trichlorofluoromethane	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	Trichlorotrifluoroethane(Freon 113)	ND	ug/L	0.5	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	Vinyl chloride (VC)	ND	ug/L	0.3	1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	1,2-Dichloroethane-d4	102	%		1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	4-Bromofluorobenzene	124	%		1
11/27/18	11/28/18 06:14	1134069	1134074	(EPA 524.2)	Toluene-d8	100	%		1

IH-23 (201811160503) **Sampled on 11/14/2018 1038**

EPA 524.2 - Volatile Organics by GCMS

11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	1,1,1,2-Tetrachloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	1,1,1-Trichloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	1,1,2,2-Tetrachloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	1,1,2-Trichloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	1,1-Dichloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	1,1-Dichloroethylene	ND	ug/L	0.5	1

Rounding on totals after summation.
(c) - indicates calculated results

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Laboratory Data

Report: 774158
Project: VOC
Group: VOC

U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
11/16/2018 1627

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	1,1-Dichloropropene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	1,2,3-Trichlorobenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	1,2,3-Trichloropropane	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	1,2,4-Trichlorobenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	1,2,4-Trimethylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	1,2-Dichloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	1,2-Dichloropropane	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	1,3,5-Trimethylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	1,3-Dichloropropane	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	2,2-Dichloropropane	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	2-Butanone (MEK)	ND	ug/L	5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	Benzene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	Bromobenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	Bromochloromethane	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	Bromodichloromethane	8.7	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	Bromoethane	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	Bromoform	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	Bromomethane (Methyl Bromide)	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	Carbon disulfide	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	Carbon Tetrachloride	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	Chlorobenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	Chlorodibromomethane	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	Chloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	Chloroform (Trichloromethane)	31	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	Chloromethane(Methyl Chloride)	ND (R7)	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	cis-1,2-Dichloroethylene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	cis-1,3-Dichloropropene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	Dibromomethane	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	Dichlorodifluoromethane	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	Dichloromethane	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	Di-isopropyl ether	ND	ug/L	3	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	Ethyl benzene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	Hexachlorobutadiene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	Isopropylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	m,p-Xylenes	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	m-Dichlorobenzene (1,3-DCB)	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	Methyl Tert-butyl ether (MTBE)	ND	ug/L	0.5	1

Rounding on totals after summation.
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Laboratory Data

Report: 774158
Project: VOC
Group: VOC

U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
11/16/2018 1627

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	Naphthalene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	n-Butylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	n-Propylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	o-Chlorotoluene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	o-Dichlorobenzene (1,2-DCB)	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	o-Xylene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	p-Chlorotoluene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	p-Dichlorobenzene (1,4-DCB)	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	p-Isopropyltoluene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	sec-Butylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	Styrene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	tert-amyl Methyl Ether	ND	ug/L	3	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	tert-Butyl Ethyl Ether	ND	ug/L	3	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	tert-Butylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	Tetrachloroethylene (PCE)	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	Toluene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	Total 1,3-Dichloropropene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	Total THM	40	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	Total xylenes	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	trans-1,2-Dichloroethylene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	trans-1,3-Dichloropropene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	Trichloroethylene (TCE)	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	Trichlorofluoromethane	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	Trichlorotrifluoroethane(Freon 113)	ND	ug/L	0.5	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	Vinyl chloride (VC)	ND	ug/L	0.3	1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	1,2-Dichloroethane-d4	111	%		1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	4-Bromofluorobenzene	114	%		1
11/27/18	11/28/18 09:21	1134146	1134150	(EPA 524.2)	Toluene-d8	94	%		1

3H-4 BKJV (201811160504) **Sampled on 11/14/2018 0940**

EPA 524.2 - Volatile Organics by GCMS

11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	1,1,1,2-Tetrachloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	1,1,1-Trichloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	1,1,2,2-Tetrachloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	1,1,2-Trichloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	1,1-Dichloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	1,1-Dichloroethylene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	1,1-Dichloropropene	ND	ug/L	0.5	1

Rounding on totals after summation.
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Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
11/16/2018 1627

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	1,2,3-Trichlorobenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	1,2,3-Trichloropropane	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	1,2,4-Trichlorobenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	1,2,4-Trimethylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	1,2-Dichloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	1,2-Dichloropropane	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	1,3,5-Trimethylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	1,3-Dichloropropane	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	2,2-Dichloropropane	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	2-Butanone (MEK)	ND	ug/L	5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	Benzene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	Bromobenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	Bromochloromethane	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	Bromodichloromethane	6.0	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	Bromoethane	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	Bromoform	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	Bromomethane (Methyl Bromide)	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	Carbon disulfide	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	Carbon Tetrachloride	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	Chlorobenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	Chlorodibromomethane	0.65	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	Chloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	Chloroform (Trichloromethane)	25	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	Chloromethane(Methyl Chloride)	ND (R7)	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	cis-1,2-Dichloroethylene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	cis-1,3-Dichloropropene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	Dibromomethane	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	Dichlorodifluoromethane	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	Dichloromethane	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	Di-isopropyl ether	ND	ug/L	3	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	Ethyl benzene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	Hexachlorobutadiene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	Isopropylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	m,p-Xylenes	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	m-Dichlorobenzene (1,3-DCB)	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	Methyl Tert-butyl ether (MTBE)	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	Naphthalene	ND	ug/L	0.5	1

Rounding on totals after summation.
(c) - indicates calculated results

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Fax: (866) 988-3757
1 800 566 LABS (1 800 566 5227)

Laboratory Data

Report: 774158
Project: VOC
Group: VOC

U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
11/16/2018 1627

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	n-Butylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	n-Propylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	o-Chlorotoluene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	o-Dichlorobenzene (1,2-DCB)	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	o-Xylene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	p-Chlorotoluene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	p-Dichlorobenzene (1,4-DCB)	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	p-Isopropyltoluene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	sec-Butylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	Styrene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	tert-amyl Methyl Ether	ND	ug/L	3	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	tert-Butyl Ethyl Ether	ND	ug/L	3	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	tert-Butylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	Tetrachloroethylene (PCE)	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	Toluene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	Total 1,3-Dichloropropene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	Total THM	32	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	Total xylenes	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	trans-1,2-Dichloroethylene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	trans-1,3-Dichloropropene	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	Trichloroethylene (TCE)	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	Trichlorofluoromethane	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	Trichlorotrifluoroethane(Freon 113)	ND	ug/L	0.5	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	Vinyl chloride (VC)	ND	ug/L	0.3	1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	1,2-Dichloroethane-d4	105	%		1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	4-Bromofluorobenzene	107	%		1
11/27/18	11/28/18 09:45	1134146	1134150	(EPA 524.2)	Toluene-d8	98	%		1

4H-8 (201811160505) **Sampled on 11/14/2018 0900**

EPA 524.2 - Volatile Organics by GCMS

11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	1,1,1,2-Tetrachloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	1,1,1-Trichloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	1,1,2,2-Tetrachloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	1,1,2-Trichloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	1,1-Dichloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	1,1-Dichloroethylene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	1,1-Dichloropropene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	1,2,3-Trichlorobenzene	ND	ug/L	0.5	1

Rounding on totals after summation.
(c) - indicates calculated results

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Laboratory Data

Report: 774158
Project: VOC
Group: VOC

U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
11/16/2018 1627

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	1,2,3-Trichloropropane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	1,2,4-Trichlorobenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	1,2,4-Trimethylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	1,2-Dichloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	1,2-Dichloropropane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	1,3,5-Trimethylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	1,3-Dichloropropane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	2,2-Dichloropropane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	2-Butanone (MEK)	ND	ug/L	5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	Benzene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	Bromobenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	Bromochloromethane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	Bromodichloromethane	6.0	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	Bromoethane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	Bromoform	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	Bromomethane (Methyl Bromide)	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	Carbon disulfide	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	Carbon Tetrachloride	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	Chlorobenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	Chlorodibromomethane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	Chloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	Chloroform (Trichloromethane)	19	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	Chloromethane(Methyl Chloride)	ND (R7)	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	cis-1,2-Dichloroethylene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	cis-1,3-Dichloropropene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	Dibromomethane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	Dichlorodifluoromethane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	Dichloromethane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	Di-isopropyl ether	ND	ug/L	3	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	Ethyl benzene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	Hexachlorobutadiene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	Isopropylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	m,p-Xylenes	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	m-Dichlorobenzene (1,3-DCB)	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	Methyl Tert-butyl ether (MTBE)	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	Naphthalene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	n-Butylbenzene	ND	ug/L	0.5	1

Rounding on totals after summation.
(c) - indicates calculated results

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Laboratory Data

Report: 774158
Project: VOC
Group: VOC

U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
11/16/2018 1627

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	n-Propylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	o-Chlorotoluene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	o-Dichlorobenzene (1,2-DCB)	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	o-Xylene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	p-Chlorotoluene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	p-Dichlorobenzene (1,4-DCB)	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	p-Isopropyltoluene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	sec-Butylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	Styrene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	tert-amyl Methyl Ether	ND	ug/L	3	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	tert-Butyl Ethyl Ether	ND	ug/L	3	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	tert-Butylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	Tetrachloroethylene (PCE)	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	Toluene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	Total 1,3-Dichloropropene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	Total THM	25	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	Total xylenes	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	trans-1,2-Dichloroethylene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	trans-1,3-Dichloropropene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	Trichloroethylene (TCE)	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	Trichlorofluoromethane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	Trichlorotrifluoroethane(Freon 113)	ND	ug/L	0.5	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	Vinyl chloride (VC)	ND	ug/L	0.3	1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	1,2-Dichloroethane-d4	100	%		1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	4-Bromofluorobenzene	118	%		1
11/27/18	11/28/18 10:08	1134146	1134150	(EPA 524.2)	Toluene-d8	101	%		1

Field Blank (201811160508) **Sampled on 11/14/2018 0810**

EPA 524.2 - Volatile Organics by GCMS

11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	1,1,1,2-Tetrachloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	1,1,1-Trichloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	1,1,2,2-Tetrachloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	1,1,2-Trichloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	1,1-Dichloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	1,1-Dichloroethylene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	1,1-Dichloropropene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	1,2,3-Trichlorobenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	1,2,3-Trichloropropane	ND	ug/L	0.5	1

Rounding on totals after summation.
(c) - indicates calculated results

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Laboratory Data

Report: 774158
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U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
11/16/2018 1627

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	1,2,4-Trichlorobenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	1,2,4-Trimethylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	1,2-Dichloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	1,2-Dichloropropane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	1,3,5-Trimethylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	1,3-Dichloropropane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	2,2-Dichloropropane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	2-Butanone (MEK)	ND	ug/L	5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	Benzene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	Bromobenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	Bromochloromethane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	Bromodichloromethane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	Bromoethane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	Bromoform	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	Bromomethane (Methyl Bromide)	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	Carbon disulfide	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	Carbon Tetrachloride	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	Chlorobenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	Chlorodibromomethane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	Chloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	Chloroform (Trichloromethane)	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	Chloromethane(Methyl Chloride)	ND (R7)	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	cis-1,2-Dichloroethylene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	cis-1,3-Dichloropropene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	Dibromomethane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	Dichlorodifluoromethane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	Dichloromethane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	Di-isopropyl ether	ND	ug/L	3	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	Ethyl benzene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	Hexachlorobutadiene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	Isopropylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	m,p-Xylenes	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	m-Dichlorobenzene (1,3-DCB)	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	Methyl Tert-butyl ether (MTBE)	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	Naphthalene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	n-Butylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	n-Propylbenzene	ND	ug/L	0.5	1

Rounding on totals after summation.
(c) - indicates calculated results

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Laboratory Data

Report: 774158
Project: VOC
Group: VOC

U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
11/16/2018 1627

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	o-Chlorotoluene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	o-Dichlorobenzene (1,2-DCB)	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	o-Xylene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	p-Chlorotoluene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	p-Dichlorobenzene (1,4-DCB)	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	p-Isopropyltoluene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	sec-Butylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	Styrene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	tert-amyl Methyl Ether	ND	ug/L	3	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	tert-Butyl Ethyl Ether	ND	ug/L	3	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	tert-Butylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	Tetrachloroethylene (PCE)	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	Toluene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	Total 1,3-Dichloropropene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	Total THM	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	Total xylenes	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	trans-1,2-Dichloroethylene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	trans-1,3-Dichloropropene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	Trichloroethylene (TCE)	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	Trichlorofluoromethane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	Trichlorotrifluoroethane(Freon 113)	ND	ug/L	0.5	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	Vinyl chloride (VC)	ND	ug/L	0.3	1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	1,2-Dichloroethane-d4	105	%		1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	4-Bromofluorobenzene	111	%		1
11/27/18	11/28/18 10:32	1134146	1134150	(EPA 524.2)	Toluene-d8	96	%		1

Dale 18 (201811160509) **Sampled on 11/14/2018 1105**

EPA 524.2 - Volatile Organics by GCMS

11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	1,1,1,2-Tetrachloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	1,1,1-Trichloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	1,1,2,2-Tetrachloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	1,1,2-Trichloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	1,1-Dichloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	1,1-Dichloroethylene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	1,1-Dichloropropene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	1,2,3-Trichlorobenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	1,2,3-Trichloropropane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	1,2,4-Trichlorobenzene	ND	ug/L	0.5	1

Rounding on totals after summation.
(c) - indicates calculated results

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Laboratory Data

Report: 774158
Project: VOC
Group: VOC

U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
11/16/2018 1627

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	1,2,4-Trimethylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	1,2-Dichloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	1,2-Dichloropropane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	1,3,5-Trimethylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	1,3-Dichloropropane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	2,2-Dichloropropane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	2-Butanone (MEK)	ND	ug/L	5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	Benzene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	Bromobenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	Bromochloromethane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	Bromodichloromethane	5.0	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	Bromoethane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	Bromoform	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	Bromomethane (Methyl Bromide)	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	Carbon disulfide	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	Carbon Tetrachloride	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	Chlorobenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	Chlorodibromomethane	0.70	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	Chloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	Chloroform (Trichloromethane)	14	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	Chloromethane(Methyl Chloride)	ND (R7)	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	cis-1,2-Dichloroethylene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	cis-1,3-Dichloropropene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	Dibromomethane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	Dichlorodifluoromethane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	Dichloromethane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	Di-isopropyl ether	ND	ug/L	3	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	Ethyl benzene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	Hexachlorobutadiene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	Isopropylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	m,p-Xylenes	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	m-Dichlorobenzene (1,3-DCB)	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	Methyl Tert-butyl ether (MTBE)	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	Naphthalene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	n-Butylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	n-Propylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	o-Chlorotoluene	ND	ug/L	0.5	1

Rounding on totals after summation.
(c) - indicates calculated results

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Laboratory Data

Report: 774158
Project: VOC
Group: VOC

U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
11/16/2018 1627

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	o-Dichlorobenzene (1,2-DCB)	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	o-Xylene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	p-Chlorotoluene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	p-Dichlorobenzene (1,4-DCB)	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	p-Isopropyltoluene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	sec-Butylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	Styrene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	tert-amyl Methyl Ether	ND	ug/L	3	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	tert-Butyl Ethyl Ether	ND	ug/L	3	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	tert-Butylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	Tetrachloroethylene (PCE)	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	Toluene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	Total 1,3-Dichloropropene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	Total THM	20	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	Total xylenes	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	trans-1,2-Dichloroethylene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	trans-1,3-Dichloropropene	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	Trichloroethylene (TCE)	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	Trichlorofluoromethane	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	Trichlorotrifluoroethane(Freon 113)	ND	ug/L	0.5	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	Vinyl chloride (VC)	ND	ug/L	0.3	1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	1,2-Dichloroethane-d4	110	%		1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	4-Bromofluorobenzene	113	%		1
11/27/18	11/28/18 10:55	1134146	1134150	(EPA 524.2)	Toluene-d8	102	%		1

McMillan JS (201811160510) **Sampled on 11/14/2018 1225**

EPA 524.2 - Volatile Organics by GCMS

11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	1,1,1,2-Tetrachloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	1,1,1-Trichloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	1,1,2,2-Tetrachloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	1,1,2-Trichloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	1,1-Dichloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	1,1-Dichloroethylene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	1,1-Dichloropropene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	1,2,3-Trichlorobenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	1,2,3-Trichloropropane	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	1,2,4-Trichlorobenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	1,2,4-Trimethylbenzene	ND	ug/L	0.5	1

Rounding on totals after summation.
(c) - indicates calculated results

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Laboratory Data

Report: 774158
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Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
11/16/2018 1627

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	1,2-Dichloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	1,2-Dichloropropane	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	1,3,5-Trimethylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	1,3-Dichloropropane	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	2,2-Dichloropropane	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	2-Butanone (MEK)	ND	ug/L	5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	Benzene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	Bromobenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	Bromochloromethane	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	Bromodichloromethane	6.4	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	Bromoethane	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	Bromoform	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	Bromomethane (Methyl Bromide)	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	Carbon disulfide	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	Carbon Tetrachloride	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	Chlorobenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	Chlorodibromomethane	0.97	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	Chloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	Chloroform (Trichloromethane)	22	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	Chloromethane(Methyl Chloride)	ND (R7)	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	cis-1,2-Dichloroethylene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	cis-1,3-Dichloropropene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	Dibromomethane	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	Dichlorodifluoromethane	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	Dichloromethane	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	Di-isopropyl ether	ND	ug/L	3	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	Ethyl benzene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	Hexachlorobutadiene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	Isopropylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	m,p-Xylenes	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	m-Dichlorobenzene (1,3-DCB)	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	Methyl Tert-butyl ether (MTBE)	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	Naphthalene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	n-Butylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	n-Propylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	o-Chlorotoluene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	o-Dichlorobenzene (1,2-DCB)	ND	ug/L	0.5	1

Rounding on totals after summation.
(c) - indicates calculated results

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1 800 566 LABS (1 800 566 5227)

Laboratory Data

Report: 774158
Project: VOC
Group: VOC

U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
11/16/2018 1627

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	o-Xylene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	p-Chlorotoluene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	p-Dichlorobenzene (1,4-DCB)	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	p-Isopropyltoluene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	sec-Butylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	Styrene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	tert-amyl Methyl Ether	ND	ug/L	3	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	tert-Butyl Ethyl Ether	ND	ug/L	3	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	tert-Butylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	Tetrachloroethylene (PCE)	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	Toluene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	Total 1,3-Dichloropropene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	Total THM	29	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	Total xylenes	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	trans-1,2-Dichloroethylene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	trans-1,3-Dichloropropene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	Trichloroethylene (TCE)	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	Trichlorofluoromethane	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	Trichlorotrifluoroethane(Freon 113)	ND	ug/L	0.5	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	Vinyl chloride (VC)	ND	ug/L	0.3	1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	1,2-Dichloroethane-d4	98	%		1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	4-Bromofluorobenzene	110	%		1
11/27/18	11/28/18 11:19	1134146	1134150	(EPA 524.2)	Toluene-d8	95	%		1

F13LK (201811160511) **Sampled on 11/14/2018 0835**

EPA 524.2 - Volatile Organics by GCMS

11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	1,1,1,2-Tetrachloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	1,1,1-Trichloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	1,1,2,2-Tetrachloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	1,1,2-Trichloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	1,1-Dichloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	1,1-Dichloroethylene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	1,1-Dichloropropene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	1,2,3-Trichlorobenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	1,2,3-Trichloropropane	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	1,2,4-Trichlorobenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	1,2,4-Trimethylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	1,2-Dichloroethane	ND	ug/L	0.5	1

Rounding on totals after summation.
(c) - indicates calculated results

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1 800 566 LABS (1 800 566 5227)

Laboratory Data

Report: 774158
Project: VOC
Group: VOC

U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
11/16/2018 1627

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	1,2-Dichloropropane	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	1,3,5-Trimethylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	1,3-Dichloropropane	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	2,2-Dichloropropane	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	2-Butanone (MEK)	ND	ug/L	5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	Benzene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	Bromobenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	Bromochloromethane	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	Bromodichloromethane	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	Bromoethane	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	Bromoform	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	Bromomethane (Methyl Bromide)	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	Carbon disulfide	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	Carbon Tetrachloride	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	Chlorobenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	Chlorodibromomethane	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	Chloroethane	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	Chloroform (Trichloromethane)	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	Chloromethane(Methyl Chloride)	ND (R7)	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	cis-1,2-Dichloroethylene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	cis-1,3-Dichloropropene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	Dibromomethane	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	Dichlorodifluoromethane	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	Dichloromethane	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	Di-isopropyl ether	ND	ug/L	3	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	Ethyl benzene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	Hexachlorobutadiene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	Isopropylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	m,p-Xylenes	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	m-Dichlorobenzene (1,3-DCB)	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	Methyl Tert-butyl ether (MTBE)	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	Naphthalene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	n-Butylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	n-Propylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	o-Chlorotoluene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	o-Dichlorobenzene (1,2-DCB)	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	o-Xylene	ND	ug/L	0.5	1

Rounding on totals after summation.
(c) - indicates calculated results

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Laboratory Data

Report: 774158
Project: VOC
Group: VOC

U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
11/16/2018 1627

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	p-Chlorotoluene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	p-Dichlorobenzene (1,4-DCB)	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	p-Isopropyltoluene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	sec-Butylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	Styrene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	tert-amyl Methyl Ether	ND	ug/L	3	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	tert-Butyl Ethyl Ether	ND	ug/L	3	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	tert-Butylbenzene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	Tetrachloroethylene (PCE)	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	Toluene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	Total 1,3-Dichloropropene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	Total THM	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	Total xylenes	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	trans-1,2-Dichloroethylene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	trans-1,3-Dichloropropene	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	Trichloroethylene (TCE)	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	Trichlorofluoromethane	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	Trichlorotrifluoroethane(Freon 113)	ND	ug/L	0.5	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	Vinyl chloride (VC)	ND	ug/L	0.3	1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	1,2-Dichloroethane-d4	100	%		1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	4-Bromofluorobenzene	110	%		1
11/27/18	11/28/18 11:42	1134146	1134150	(EPA 524.2)	Toluene-d8	100	%		1

Rounding on totals after summation.
(c) - indicates calculated results

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Laboratory Comments

Report: 774158
Project: VOC
Group: VOC

U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Flags Legend:

R7 - LFB/LFBD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.

The Comments Report may be blank if there are no comments for this report.

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Laboratory Hits

Report: 769968
Project: QUARTERLY
Group: Quarterly 2018

U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
10/24/2018 1152

Analyzed		Analyte	Sample ID	Result	Federal MCL	Units	MRL
		201810240584	**18**				
11/01/2018	9:09	Bromodichloromethane		6.9		ug/L	0.5
11/01/2018	9:09	Chlorodibromomethane		1.5		ug/L	0.5
11/01/2018	9:09	Chloroform (Trichloromethane)		14		ug/L	0.5
11/01/2018	9:09	Total THM		22	80	ug/L	0.5

SUMMARY OF POSITIVE DATA ONLY

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1 800 566 LABS (1 800 566 5227)

Laboratory Data

Report: 769968
Project: QUARTERLY
Group: Quarterly 2018

U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
10/24/2018 1152

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
18 (201810240584)						**Sampled on 10/22/2018 1115**			
		EPA 505 - Organochlorine Pesticides/PCBs							
10/26/18	10/27/18 02:04	1127584	1127936	(EPA 505)	Alachlor (Alanex)	ND	ug/L	0.1	1
10/26/18	10/27/18 02:04	1127584	1127936	(EPA 505)	Aldrin	ND	ug/L	0.01	1
10/26/18	10/27/18 02:04	1127584	1127936	(EPA 505)	Chlordane	ND	ug/L	0.1	1
10/26/18	10/27/18 02:04	1127584	1127936	(EPA 505)	Dieldrin	ND	ug/L	0.01	1
10/26/18	10/27/18 02:04	1127584	1127936	(EPA 505)	Endrin	ND	ug/L	0.01	1
10/26/18	10/27/18 02:04	1127584	1127936	(EPA 505)	Heptachlor	ND	ug/L	0.01	1
10/26/18	10/27/18 02:04	1127584	1127936	(EPA 505)	Heptachlor Epoxide	ND	ug/L	0.01	1
10/26/18	10/27/18 02:04	1127584	1127936	(EPA 505)	Lindane (gamma-BHC)	ND	ug/L	0.01	1
10/26/18	10/27/18 02:04	1127584	1127936	(EPA 505)	Methoxychlor	ND	ug/L	0.05	1
10/26/18	10/27/18 02:04	1127584	1127936	(EPA 505)	PCB 1016 Aroclor	ND	ug/L	0.08	1
10/26/18	10/27/18 02:04	1127584	1127936	(EPA 505)	PCB 1221 Aroclor	ND	ug/L	0.1	1
10/26/18	10/27/18 02:04	1127584	1127936	(EPA 505)	PCB 1232 Aroclor	ND	ug/L	0.1	1
10/26/18	10/27/18 02:04	1127584	1127936	(EPA 505)	PCB 1242 Aroclor	ND	ug/L	0.1	1
10/26/18	10/27/18 02:04	1127584	1127936	(EPA 505)	PCB 1248 Aroclor	ND	ug/L	0.1	1
10/26/18	10/27/18 02:04	1127584	1127936	(EPA 505)	PCB 1254 Aroclor	ND	ug/L	0.1	1
10/26/18	10/27/18 02:04	1127584	1127936	(EPA 505)	PCB 1260 Aroclor	ND	ug/L	0.1	1
10/26/18	10/27/18 02:04	1127584	1127936	(EPA 505)	Total PCBs	ND	ug/L	0.1	1
10/26/18	10/27/18 02:04	1127584	1127936	(EPA 505)	Toxaphene	ND	ug/L	0.5	1
10/26/18	10/27/18 02:04	1127584	1127936	(EPA 505)	Tetrachlorometaxylene	122	%		1
		EPA 515.4 - Chlorophenoxy Herbicides							
11/01/18	11/02/18 11:35	1128587	1129783	(EPA 515.4)	2,4,5-T	ND	ug/L	0.2	1
11/01/18	11/02/18 11:35	1128587	1129783	(EPA 515.4)	2,4,5-TP (Silvex)	ND	ug/L	0.2	1
11/01/18	11/02/18 11:35	1128587	1129783	(EPA 515.4)	2,4-D	ND	ug/L	0.1	1
11/01/18	11/02/18 11:35	1128587	1129783	(EPA 515.4)	2,4-DB	ND	ug/L	2	1
11/01/18	11/02/18 11:35	1128587	1129783	(EPA 515.4)	3,5-Dichlorobenzoic acid	ND	ug/L	0.5	1
11/01/18	11/02/18 11:35	1128587	1129783	(EPA 515.4)	Acifluorfen	ND	ug/L	0.2	1
11/01/18	11/02/18 11:35	1128587	1129783	(EPA 515.4)	Bentazon	ND	ug/L	0.5	1
11/01/18	11/02/18 11:35	1128587	1129783	(EPA 515.4)	Dalapon	ND	ug/L	1	1
11/01/18	11/02/18 11:35	1128587	1129783	(EPA 515.4)	Dicamba	ND	ug/L	0.1	1
11/01/18	11/02/18 11:35	1128587	1129783	(EPA 515.4)	Dichlorprop	ND	ug/L	0.5	1
11/01/18	11/02/18 11:35	1128587	1129783	(EPA 515.4)	Dinoseb	ND	ug/L	0.2	1
11/01/18	11/02/18 11:35	1128587	1129783	(EPA 515.4)	Pentachlorophenol	ND	ug/L	0.04	1
11/01/18	11/02/18 11:35	1128587	1129783	(EPA 515.4)	Picloram	ND	ug/L	0.1	1
11/01/18	11/02/18 11:35	1128587	1129783	(EPA 515.4)	Tot DCPA Mono&Diacid Degradate	ND	ug/L	0.1	1
11/01/18	11/02/18 11:35	1128587	1129783	(EPA 515.4)	2,4-Dichlorophenyl acetic acid	105	%		1

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U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
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Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
11/01/18	11/02/18 11:35	1128587	1129783	(EPA 515.4)	4,4-Dibromooctafluorobiphenyl	85	%		1
		EPA 551.1 - EDB/DBCP/HAN by EPA 551.1							
11/02/18	11/03/18 23:08	1129025	1129235	(EPA 551.1)	Dibromochloropropane (DBCP)	ND (S4)	ug/L	0.01	1
11/02/18	11/03/18 23:08	1129025	1129235	(EPA 551.1)	Ethylene Dibromide (EDB)	ND (S4)	ug/L	0.01	1
11/02/18	11/03/18 23:08	1129025	1129235	(EPA 551.1)	1,2-Dibromopropane	126 (S4)	%		1
		EPA 525.2 - Semivolatiles by GCMS							
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	2,4-DDD	ND	ug/L	0.1	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	2,4-DDE	ND	ug/L	0.1	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	2,4-DDT	ND	ug/L	0.1	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	2,4-Dinitrotoluene	ND	ug/L	0.1	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	2,6-Dinitrotoluene	ND	ug/L	0.1	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	4,4-DDD	ND	ug/L	0.1	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	4,4-DDE	ND	ug/L	0.1	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	4,4-DDT	ND	ug/L	0.1	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Acenaphthene	ND	ug/L	0.1	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Acenaphthylene	ND	ug/L	0.1	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Acetochlor	ND	ug/L	0.1	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Alachlor	ND	ug/L	0.05	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Aldrin	ND	ug/L	0.05	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Alpha-BHC	ND	ug/L	0.1	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	alpha-Chlordane	ND	ug/L	0.05	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Anthracene	ND	ug/L	0.02	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Atrazine	ND	ug/L	0.05	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Benz(a)Anthracene	ND	ug/L	0.05	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Benzo(a)pyrene	ND	ug/L	0.02	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Benzo(b)Fluoranthene	ND	ug/L	0.02	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Benzo(g,h,i)Perylene	ND	ug/L	0.05	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Benzo(k)Fluoranthene	ND	ug/L	0.02	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Beta-BHC	ND	ug/L	0.1	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Bromacil	ND	ug/L	0.2	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Butachlor	ND	ug/L	0.05	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Butylbenzylphthalate	ND	ug/L	0.5	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Caffeine by method 525mod	ND	ug/L	0.05	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Chlorobenzilate	ND	ug/L	0.1	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Chloroneb	ND	ug/L	0.1	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Chlorothalonil(Draconil,Bravo)	ND	ug/L	0.1	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Chlorpyrifos (Dursban)	ND	ug/L	0.05	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Chrysene	ND	ug/L	0.02	1

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10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Delta-BHC	ND	ug/L	0.1	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Di-(2-Ethylhexyl)adipate	ND	ug/L	0.6	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Di(2-Ethylhexyl)phthalate	ND	ug/L	0.6	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Diazinon (Qualitative)	ND	ug/L	0.1	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Dibenz(a,h)Anthracene	ND	ug/L	0.05	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Dichlorvos (DDVP)	ND	ug/L	0.05	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Dieldrin	ND	ug/L	0.2	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Diethylphthalate	ND	ug/L	0.5	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Dimethoate	ND	ug/L	0.1	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Dimethylphthalate	ND	ug/L	0.5	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Di-n-Butylphthalate	ND	ug/L	1	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Di-N-octylphthalate	ND	ug/L	0.1	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Endosulfan I (Alpha)	ND	ug/L	0.1	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Endosulfan II (Beta)	ND	ug/L	0.1	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Endosulfan Sulfate	ND	ug/L	0.1	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Endrin	ND	ug/L	0.2	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Endrin Aldehyde	ND	ug/L	0.1	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	EPTC	ND	ug/L	0.1	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Fluoranthene	ND	ug/L	0.1	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Fluorene	ND	ug/L	0.05	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	gamma-Chlordane	ND	ug/L	0.05	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Heptachlor	ND	ug/L	0.04	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Heptachlor Epoxide (isomer B)	ND	ug/L	0.05	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Hexachlorobenzene	ND	ug/L	0.05	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Hexachlorocyclopentadiene	ND	ug/L	0.05	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Indeno(1,2,3,c,d)Pyrene	ND (VC)	ug/L	0.05	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Isophorone	ND	ug/L	0.5	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Lindane	ND	ug/L	0.04	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Malathion	ND	ug/L	0.1	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Methoxychlor	ND	ug/L	0.1	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Metolachlor	ND	ug/L	0.05	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Metribuzin	ND	ug/L	0.05	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Molinate	ND	ug/L	0.1	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Naphthalene	ND	ug/L	0.3	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Parathion	ND	ug/L	0.1	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Pendimethalin	ND	ug/L	0.1	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Permethrin (mixed isomers)	ND	ug/L	0.2	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Phenanthrene	ND	ug/L	0.04	1

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10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Propachlor	ND (LE)	ug/L	0.05	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Pyrene	ND	ug/L	0.05	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Simazine	ND	ug/L	0.05	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Terbacil	ND	ug/L	0.1	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Terbuthylazine	ND	ug/L	0.1	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Thiobencarb (ELAP)	ND	ug/L	0.2	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	trans-Nonachlor	ND	ug/L	0.05	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Trifluralin	ND	ug/L	0.1	1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	1,3-Dimethyl-2-nitrobenzene	98	%		1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Acenaphthene-d10	90	%		1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Chrysene-d12	90	%		1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Perylene-d12	91	%		1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Phenanthrene-d10	92	%		1
10/30/18	11/02/18 17:21	1128118	1129225	(EPA 525.2)	Triphenylphosphate	111	%		1
		EPA 548.1 - Endothall							
10/25/18	10/30/18 13:01	1127414	1128197	(EPA 548.1)	Endothall	ND	ug/L	5	1
		EPA 521 - Nitrosamines by GCMS							
10/31/18	11/02/18 03:59	1128411	1128867	(EPA 521)	N-Nitrosodibutylamine (NDBA)	ND (LE)	ng/L	2	1
10/31/18	11/02/18 03:59	1128411	1128867	(EPA 521)	N-Nitrosodiethylamine (NDEA)	ND	ng/L	2	1
10/31/18	11/02/18 03:59	1128411	1128867	(EPA 521)	N-Nitroso-dimethylamine (NDMA)	ND	ng/L	2	1
10/31/18	11/02/18 03:59	1128411	1128867	(EPA 521)	N-Nitrosodi-n-propylamine (NDPA)	ND	ng/L	2	1
10/31/18	11/02/18 03:59	1128411	1128867	(EPA 521)	N-Nitrosomethylethylamine (NMEA)	ND	ng/L	2	1
10/31/18	11/02/18 03:59	1128411	1128867	(EPA 521)	N-Nitrosopyrollidine (NPYR)	ND	ng/L	2	1
10/31/18	11/02/18 03:59	1128411	1128867	(EPA 521)	NDMA-D6	104	%		1
		EPA 1613B - 2,3,7,8-TCDD_Dioxin							
10/26/18	10/30/18 6:13	1127549	1128116	(EPA 1613B)	2,3,7,8-TCDD	ND	pg/L	5	1
10/26/18	10/30/18 6:13	1127549	1128116	(EPA 1613B)	C12-2,3,7,8-TCDD	54	%		1
		EPA 547 - Glyphosate							
	10/29/18 15:56		1127192	(EPA 547)	Glyphosate	ND	ug/L	6	1
		EPA 531.2 - Aldicarbs							
	10/26/18 20:38		1127859	(EPA 531.2)	3-Hydroxycarbofuran	ND	ug/L	0.5	1
	10/26/18 20:38		1127859	(EPA 531.2)	Aldicarb (Temik)	ND	ug/L	0.5	1
	10/26/18 20:38		1127859	(EPA 531.2)	Aldicarb sulfone	ND	ug/L	0.5	1
	10/26/18 20:38		1127859	(EPA 531.2)	Aldicarb sulfoxide	ND	ug/L	0.5	1
	10/26/18 20:38		1127859	(EPA 531.2)	Baygon	ND	ug/L	0.5	1
	10/26/18 20:38		1127859	(EPA 531.2)	Carbaryl	ND	ug/L	0.5	1
	10/26/18 20:38		1127859	(EPA 531.2)	Carbofuran (Furadan)	ND	ug/L	0.5	1
	10/26/18 20:38		1127859	(EPA 531.2)	Methiocarb	ND	ug/L	0.5	1

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	10/26/18 20:38		1127859	(EPA 531.2)	Methomyl	ND	ug/L	0.5	1
	10/26/18 20:38		1127859	(EPA 531.2)	Oxamyl (Vydate)	ND	ug/L	0.5	1
	10/26/18 20:38		1127859	(EPA 531.2)	4-Bromo-3,5-dimethylphenyl-N-methylc arbamate	105	%		1
		EPA 549.2 - Diquat and Paraquat							
10/25/18	10/26/18 22:22	1127288	1127960	(EPA 549.2)	Diquat	ND	ug/L	0.4	1
10/25/18	10/26/18 22:22	1127288	1127960	(EPA 549.2)	Paraquat	ND	ug/L	2	1
		EPA 335.4 - Cyanide by manual distillation							
10/31/18	11/01/18 14:32	1128319	1128718	(EPA 335.4)	Cyanide by manual distillation	ND	mg/L	0.005	1
		EPA 524.2 - Volatile Organics by GCMS							
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	1,1,1,2-Tetrachloroethane	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	1,1,1-Trichloroethane	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	1,1,2,2-Tetrachloroethane	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	1,1,2-Trichloroethane	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	1,1-Dichloroethane	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	1,1-Dichloroethylene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	1,1-Dichloropropene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	1,2,3-Trichlorobenzene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	1,2,3-Trichloropropane	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	1,2,4-Trichlorobenzene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	1,2,4-Trimethylbenzene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	1,2-Dichloroethane	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	1,2-Dichloropropane	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	1,3,5-Trimethylbenzene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	1,3-Dichloropropane	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	2,2-Dichloropropane	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	2-Butanone (MEK)	ND	ug/L	5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Benzene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Bromobenzene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Bromochloromethane	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Bromodichloromethane	6.9	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Bromoethane	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Bromoform	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Bromomethane (Methyl Bromide)	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Carbon disulfide	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Carbon Tetrachloride	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Chlorobenzene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Chlorodibromomethane	1.5	ug/L	0.5	1

Rounding on totals after summation.
(c) - indicates calculated results

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Laboratory Data

Report: 769968
Project: QUARTERLY
Group: Quarterly 2018

U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
10/24/2018 1152

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Chloroethane	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Chloroform (Trichloromethane)	14	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Chloromethane(Methyl Chloride)	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	cis-1,2-Dichloroethylene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	cis-1,3-Dichloropropene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Dibromomethane	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Dichlorodifluoromethane	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Dichloromethane	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Di-isopropyl ether	ND	ug/L	3	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Ethyl benzene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Hexachlorobutadiene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Isopropylbenzene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	m,p-Xylenes	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	m-Dichlorobenzene (1,3-DCB)	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Methyl Tert-butyl ether (MTBE)	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Naphthalene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	n-Butylbenzene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	n-Propylbenzene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	o-Chlorotoluene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	o-Dichlorobenzene (1,2-DCB)	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	o-Xylene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	p-Chlorotoluene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	p-Dichlorobenzene (1,4-DCB)	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	p-Isopropyltoluene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	sec-Butylbenzene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Styrene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	tert-amyl Methyl Ether	ND	ug/L	3	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	tert-Butyl Ethyl Ether	ND	ug/L	3	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	tert-Butylbenzene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Tetrachloroethylene (PCE)	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Toluene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Total 1,3-Dichloropropene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Total THM	22	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Total xylenes	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	trans-1,2-Dichloroethylene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	trans-1,3-Dichloropropene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Trichloroethylene (TCE)	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Trichlorofluoromethane	ND	ug/L	0.5	1

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U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
10/24/2018 1152

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Trichlorotrifluoroethane(Freon 113)	ND	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Vinyl chloride (VC)	ND	ug/L	0.3	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	1,2-Dichloroethane-d4	103	%		1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	4-Bromofluorobenzene	104	%		1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Toluene-d8	92	%		1
TRAVEL BLANK - HOLD (201810240585)							**Sampled on 10/22/2018 1115**		
		EPA 551.1 - EDB/DBCP/HAN by EPA 551.1							
11/02/18	11/13/18 09:16	1129025	1131071	(EPA 551.1)	Dibromochloropropane (DBCP)	NA	ug/L	0.01	1
11/02/18	11/13/18 09:16	1129025	1131071	(EPA 551.1)	Ethylene Dibromide (EDB)	NA	ug/L	0.01	1
11/02/18	11/13/18 09:16	1129025	1131071	(EPA 551.1)	1,2-Dibromopropane	NA	%		1
		EPA 524.2 - Volatile Organics by GCMS							
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	1,1,1,2-Tetrachloroethane	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	1,1,1-Trichloroethane	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	1,1,2,2-Tetrachloroethane	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	1,1,2-Trichloroethane	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	1,1-Dichloroethane	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	1,1-Dichloroethylene	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	1,1-Dichloropropene	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	1,2,3-Trichlorobenzene	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	1,2,3-Trichloropropane	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	1,2,4-Trichlorobenzene	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	1,2,4-Trimethylbenzene	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	1,2-Dichloroethane	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	1,2-Dichloropropane	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	1,3,5-Trimethylbenzene	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	1,3-Dichloropropane	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	2,2-Dichloropropane	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	2-Butanone (MEK)	NA	ug/L	5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	4-Methyl-2-Pentanone (MIBK)	NA	ug/L	5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Benzene	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Bromobenzene	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Bromochloromethane	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Bromodichloromethane	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Bromoethane	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Bromoform	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Bromomethane (Methyl Bromide)	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Carbon disulfide	NA	ug/L	0.5	1

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Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Carbon Tetrachloride	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Chlorobenzene	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Chlorodibromomethane	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Chloroethane	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Chloroform (Trichloromethane)	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Chloromethane(Methyl Chloride)	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	cis-1,2-Dichloroethylene	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	cis-1,3-Dichloropropene	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Dibromomethane	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Dichlorodifluoromethane	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Dichloromethane	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Di-isopropyl ether	NA	ug/L	3	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Ethyl benzene	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Hexachlorobutadiene	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Isopropylbenzene	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	m,p-Xylenes	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	m-Dichlorobenzene (1,3-DCB)	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Methyl Tert-butyl ether (MTBE)	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Naphthalene	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	n-Butylbenzene	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	n-Propylbenzene	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	o-Chlorotoluene	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	o-Dichlorobenzene (1,2-DCB)	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	o-Xylene	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	p-Chlorotoluene	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	p-Dichlorobenzene (1,4-DCB)	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	p-Isopropyltoluene	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	sec-Butylbenzene	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Styrene	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	tert-amyl Methyl Ether	NA	ug/L	3	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	tert-Butyl Ethyl Ether	NA	ug/L	3	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	tert-Butylbenzene	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Tetrachloroethylene (PCE)	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Toluene	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Total 1,3-Dichloropropene	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Total THM	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Total xylenes	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	trans-1,2-Dichloroethylene	NA	ug/L	0.5	1

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Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
10/24/2018 1152

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	trans-1,3-Dichloropropene	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Trichloroethylene (TCE)	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Trichlorofluoromethane	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Trichlorotrifluoroethane(Freon 113)	NA	ug/L	0.5	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Vinyl chloride (VC)	NA	ug/L	0.3	1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	1,2-Dichloroethane-d4	NA	%		1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	4-Bromofluorobenzene	NA	%		1
11/01/18	11/01/18 9:09	1128914	1128917	(EPA 524.2)	Toluene-d8	NA	%		1

Rounding on totals after summation.
(c) - indicates calculated results

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1 800 566 LABS (1 800 566 5227)

Laboratory Comments

Report: 769968
Project: QUARTERLY
Group: Quarterly 2018

U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Flags Legend:

LE - MRL Check recovery was above laboratory acceptance limits.

S4 - Surrogate recovery was above laboratory and method acceptance limits. No target analytes were detected in the sample.

VC - CCV is high biased, ND data are reportable as per TNI V1M4 1.7.2.e).i.

The Comments Report may be blank if there are no comments for this report.

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Laboratory Hits

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Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
10/24/2018 1128

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
	201810240586	**J**				
11/01/2018 9:31	Bromodichloromethane		8.5		ug/L	0.5
11/01/2018 9:31	Chlorodibromomethane		2.1		ug/L	0.5
11/01/2018 9:31	Chloroform (Trichloromethane)		19		ug/L	0.5
11/01/2018 9:31	Total THM		30	80	ug/L	0.5

SUMMARY OF POSITIVE DATA ONLY

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Samples Received on:
10/24/2018 1128

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
J (201810240586)							**Sampled on 10/22/2018 1335**		
		EPA 505 - Organochlorine Pesticides/PCBs							
10/29/18	10/30/18 09:21	1127828	1128520	(EPA 505)	Alachlor (Alanex)	ND	ug/L	0.1	1
10/29/18	10/30/18 09:21	1127828	1128520	(EPA 505)	Aldrin	ND	ug/L	0.01	1
10/29/18	10/30/18 09:21	1127828	1128520	(EPA 505)	Chlordane	ND	ug/L	0.1	1
10/29/18	10/30/18 09:21	1127828	1128520	(EPA 505)	Dieldrin	ND	ug/L	0.01	1
10/29/18	10/30/18 09:21	1127828	1128520	(EPA 505)	Endrin	ND	ug/L	0.01	1
10/29/18	10/30/18 09:21	1127828	1128520	(EPA 505)	Heptachlor	ND	ug/L	0.01	1
10/29/18	10/30/18 09:21	1127828	1128520	(EPA 505)	Heptachlor Epoxide	ND	ug/L	0.01	1
10/29/18	10/30/18 09:21	1127828	1128520	(EPA 505)	Lindane (gamma-BHC)	ND	ug/L	0.01	1
10/29/18	10/30/18 09:21	1127828	1128520	(EPA 505)	Methoxychlor	ND	ug/L	0.05	1
10/29/18	10/30/18 09:21	1127828	1128520	(EPA 505)	PCB 1016 Aroclor	ND	ug/L	0.08	1
10/29/18	10/30/18 09:21	1127828	1128520	(EPA 505)	PCB 1221 Aroclor	ND	ug/L	0.1	1
10/29/18	10/30/18 09:21	1127828	1128520	(EPA 505)	PCB 1232 Aroclor	ND	ug/L	0.1	1
10/29/18	10/30/18 09:21	1127828	1128520	(EPA 505)	PCB 1242 Aroclor	ND	ug/L	0.1	1
10/29/18	10/30/18 09:21	1127828	1128520	(EPA 505)	PCB 1248 Aroclor	ND	ug/L	0.1	1
10/29/18	10/30/18 09:21	1127828	1128520	(EPA 505)	PCB 1254 Aroclor	ND	ug/L	0.1	1
10/29/18	10/30/18 09:21	1127828	1128520	(EPA 505)	PCB 1260 Aroclor	ND	ug/L	0.1	1
10/29/18	10/30/18 09:21	1127828	1128520	(EPA 505)	Total PCBs	ND	ug/L	0.1	1
10/29/18	10/30/18 09:21	1127828	1128520	(EPA 505)	Toxaphene	ND	ug/L	0.5	1
10/29/18	10/30/18 09:21	1127828	1128520	(EPA 505)	Tetrachlorometaxylene	110	%		1
		EPA 515.4 - Chlorophenoxy Herbicides							
11/05/18	11/06/18 13:27	1128830	1130344	(EPA 515.4)	2,4,5-T	ND	ug/L	0.2	1
11/05/18	11/06/18 13:27	1128830	1130344	(EPA 515.4)	2,4,5-TP (Silvex)	ND	ug/L	0.2	1
11/05/18	11/06/18 13:27	1128830	1130344	(EPA 515.4)	2,4-D	ND	ug/L	0.1	1
11/05/18	11/06/18 13:27	1128830	1130344	(EPA 515.4)	2,4-DB	ND	ug/L	2	1
11/05/18	11/06/18 13:27	1128830	1130344	(EPA 515.4)	3,5-Dichlorobenzoic acid	ND	ug/L	0.5	1
11/05/18	11/06/18 13:27	1128830	1130344	(EPA 515.4)	Acifluorfen	ND	ug/L	0.2	1
11/05/18	11/06/18 13:27	1128830	1130344	(EPA 515.4)	Bentazon	ND	ug/L	0.5	1
11/05/18	11/06/18 13:27	1128830	1130344	(EPA 515.4)	Dalapon	ND	ug/L	1	1
11/05/18	11/06/18 13:27	1128830	1130344	(EPA 515.4)	Dicamba	ND	ug/L	0.1	1
11/05/18	11/06/18 13:27	1128830	1130344	(EPA 515.4)	Dichlorprop	ND	ug/L	0.5	1
11/05/18	11/06/18 13:27	1128830	1130344	(EPA 515.4)	Dinoseb	ND	ug/L	0.2	1
11/05/18	11/06/18 13:27	1128830	1130344	(EPA 515.4)	Pentachlorophenol	ND	ug/L	0.04	1
11/05/18	11/06/18 13:27	1128830	1130344	(EPA 515.4)	Picloram	ND	ug/L	0.1	1
11/05/18	11/06/18 13:27	1128830	1130344	(EPA 515.4)	Tot DCPA Mono&Diacid Degradate	ND	ug/L	0.1	1
11/05/18	11/06/18 13:27	1128830	1130344	(EPA 515.4)	2,4-Dichlorophenyl acetic acid	91	%		1

Rounding on totals after summation.
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Samples Received on:
10/24/2018 1128

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
11/05/18	11/06/18 13:27	1128830	1130344	(EPA 515.4)	4,4-Dibromooctafluorobiphenyl	118	%		1
		EPA 551.1 - EDB/DBCP/HAN by EPA 551.1							
11/02/18	11/03/18 23:33	1129025	1129235	(EPA 551.1)	Dibromochloropropane (DBCP)	ND	ug/L	0.01	1
11/02/18	11/03/18 23:33	1129025	1129235	(EPA 551.1)	Ethylene Dibromide (EDB)	ND	ug/L	0.01	1
11/02/18	11/03/18 23:33	1129025	1129235	(EPA 551.1)	1,2-Dibromopropane	119	%		1
		EPA 525.2 - Semivolatiles by GCMS							
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	2,4-DDD	ND	ug/L	0.1	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	2,4-DDE	ND	ug/L	0.1	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	2,4-DDT	ND	ug/L	0.1	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	2,4-Dinitrotoluene	ND	ug/L	0.1	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	2,6-Dinitrotoluene	ND	ug/L	0.1	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	4,4-DDD	ND	ug/L	0.1	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	4,4-DDE	ND	ug/L	0.1	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	4,4-DDT	ND	ug/L	0.1	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Acenaphthene	ND	ug/L	0.1	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Acenaphthylene	ND	ug/L	0.1	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Acetochlor	ND	ug/L	0.1	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Alachlor	ND	ug/L	0.05	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Aldrin	ND	ug/L	0.05	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Alpha-BHC	ND	ug/L	0.1	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	alpha-Chlordane	ND	ug/L	0.05	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Anthracene	ND	ug/L	0.02	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Atrazine	ND	ug/L	0.05	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Benz(a)Anthracene	ND	ug/L	0.05	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Benzo(a)pyrene	ND	ug/L	0.02	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Benzo(b)Fluoranthene	ND	ug/L	0.02	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Benzo(g,h,i)Perylene	ND	ug/L	0.05	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Benzo(k)Fluoranthene	ND	ug/L	0.02	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Beta-BHC	ND	ug/L	0.1	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Bromacil	ND	ug/L	0.2	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Butachlor	ND	ug/L	0.05	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Butylbenzylphthalate	ND	ug/L	0.5	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Caffeine by method 525mod	ND	ug/L	0.05	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Chlorobenzilate	ND	ug/L	0.1	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Chloroneb	ND	ug/L	0.1	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Chlorothalonil(Draconil,Bravo)	ND	ug/L	0.1	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Chlorpyrifos (Dursban)	ND	ug/L	0.05	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Chrysene	ND	ug/L	0.02	1

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Laboratory Data

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Samples Received on:
10/24/2018 1128

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Delta-BHC	ND	ug/L	0.1	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Di-(2-Ethylhexyl)adipate	ND	ug/L	0.6	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Di(2-Ethylhexyl)phthalate	ND	ug/L	0.6	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Diazinon (Qualitative)	ND	ug/L	0.1	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Dibenz(a,h)Anthracene	ND	ug/L	0.05	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Dichlorvos (DDVP)	ND	ug/L	0.05	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Dieldrin	ND	ug/L	0.2	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Diethylphthalate	ND	ug/L	0.5	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Dimethoate	ND	ug/L	0.1	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Dimethylphthalate	ND	ug/L	0.5	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Di-n-Butylphthalate	ND	ug/L	1	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Di-N-octylphthalate	ND	ug/L	0.1	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Endosulfan I (Alpha)	ND	ug/L	0.1	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Endosulfan II (Beta)	ND	ug/L	0.1	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Endosulfan Sulfate	ND	ug/L	0.1	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Endrin	ND	ug/L	0.2	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Endrin Aldehyde	ND	ug/L	0.1	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	EPTC	ND	ug/L	0.1	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Fluoranthene	ND	ug/L	0.1	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Fluorene	ND	ug/L	0.05	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	gamma-Chlordane	ND	ug/L	0.05	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Heptachlor	ND	ug/L	0.04	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Heptachlor Epoxide (isomer B)	ND	ug/L	0.05	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Hexachlorobenzene	ND	ug/L	0.05	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Hexachlorocyclopentadiene	ND	ug/L	0.05	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Indeno(1,2,3,c,d)Pyrene	ND	ug/L	0.05	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Isophorone	ND	ug/L	0.5	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Lindane	ND	ug/L	0.04	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Malathion	ND	ug/L	0.1	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Methoxychlor	ND	ug/L	0.1	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Metolachlor	ND	ug/L	0.05	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Metribuzin	ND	ug/L	0.05	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Molinate	ND	ug/L	0.1	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Naphthalene	ND	ug/L	0.3	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Parathion	ND	ug/L	0.1	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Pendimethalin	ND	ug/L	0.1	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Permethrin (mixed isomers)	ND (LE)	ug/L	0.2	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Phenanthrene	ND	ug/L	0.04	1

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10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Propachlor	ND	ug/L	0.05	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Pyrene	ND	ug/L	0.05	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Simazine	ND	ug/L	0.05	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Terbacil	ND	ug/L	0.1	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Terbuthylazine	ND	ug/L	0.1	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Thiobencarb (ELAP)	ND	ug/L	0.2	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	trans-Nonachlor	ND	ug/L	0.05	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Trifluralin	ND	ug/L	0.1	1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	1,3-Dimethyl-2-nitrobenzene	96	%		1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Acenaphthene-d10	88	%		1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Chrysene-d12	90	%		1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Perylene-d12	95	%		1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Phenanthrene-d10	87	%		1
10/30/18	11/05/18 22:26	1128186	1129440	(EPA 525.2)	Triphenylphosphate	112	%		1
		EPA 548.1 - Endothall							
10/25/18	10/30/18 13:12	1127414	1128197	(EPA 548.1)	Endothall	ND	ug/L	5	1
		EPA 521 - Nitrosamines by GCMS							
10/31/18	11/02/18 04:22	1128411	1128867	(EPA 521)	N-Nitrosodibutylamine (NDBA)	ND (LE)	ng/L	2	1
10/31/18	11/02/18 04:22	1128411	1128867	(EPA 521)	N-Nitrosodiethylamine (NDEA)	ND	ng/L	2	1
10/31/18	11/02/18 04:22	1128411	1128867	(EPA 521)	N-Nitroso-dimethylamine (NDMA)	ND	ng/L	2	1
10/31/18	11/02/18 04:22	1128411	1128867	(EPA 521)	N-Nitrosodi-n-propylamine (NDPA)	ND	ng/L	2	1
10/31/18	11/02/18 04:22	1128411	1128867	(EPA 521)	N-Nitrosomethylethylamine (NMEA)	ND	ng/L	2	1
10/31/18	11/02/18 04:22	1128411	1128867	(EPA 521)	N-Nitrosopyrollidine (NPYR)	ND	ng/L	2	1
10/31/18	11/02/18 04:22	1128411	1128867	(EPA 521)	NDMA-D6	107	%		1
		EPA 1613B - 2,3,7,8-TCDD_Dioxin							
10/30/18	11/01/18 5:16	1128071	1128632	(EPA 1613B)	2,3,7,8-TCDD	ND	pg/L	5	1
10/30/18	11/01/18 5:16	1128071	1128632	(EPA 1613B)	C12-2,3,7,8-TCDD	41	%		1
		EPA 547 - Glyphosate							
	10/29/18 17:26		1127192	(EPA 547)	Glyphosate	ND	ug/L	6	1
		EPA 531.2 - Aldicarbs							
	10/26/18 21:15		1127859	(EPA 531.2)	3-Hydroxycarbofuran	ND	ug/L	0.5	1
	10/26/18 21:15		1127859	(EPA 531.2)	Aldicarb (Temik)	ND	ug/L	0.5	1
	10/26/18 21:15		1127859	(EPA 531.2)	Aldicarb sulfone	ND	ug/L	0.5	1
	10/26/18 21:15		1127859	(EPA 531.2)	Aldicarb sulfoxide	ND	ug/L	0.5	1
	10/26/18 21:15		1127859	(EPA 531.2)	Baygon	ND	ug/L	0.5	1
	10/26/18 21:15		1127859	(EPA 531.2)	Carbaryl	ND	ug/L	0.5	1
	10/26/18 21:15		1127859	(EPA 531.2)	Carbofuran (Furadan)	ND	ug/L	0.5	1
	10/26/18 21:15		1127859	(EPA 531.2)	Methiocarb	ND	ug/L	0.5	1

Rounding on totals after summation.
(c) - indicates calculated results

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Laboratory Data

Report: 769969
Project: QUARTERLY
Group: Quarterly 2018

U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
10/24/2018 1128

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
	10/26/18 21:15		1127859	(EPA 531.2)	Methomyl	ND	ug/L	0.5	1
	10/26/18 21:15		1127859	(EPA 531.2)	Oxamyl (Vydate)	ND	ug/L	0.5	1
	10/26/18 21:15		1127859	(EPA 531.2)	4-Bromo-3,5-dimethylphenyl-N-methylc arbamate	106	%		1
		EPA 549.2 - Diquat and Paraquat							
10/25/18	10/26/18 22:34	1127288	1127960	(EPA 549.2)	Diquat	ND	ug/L	0.4	1
10/25/18	10/26/18 22:34	1127288	1127960	(EPA 549.2)	Paraquat	ND	ug/L	2	1
		EPA 335.4 - Cyanide by manual distillation							
10/31/18	11/01/18 14:34	1128319	1128718	(EPA 335.4)	Cyanide by manual distillation	ND	mg/L	0.005	1
		EPA 524.2 - Volatile Organics by GCMS							
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	1,1,1,2-Tetrachloroethane	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	1,1,1-Trichloroethane	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	1,1,2,2-Tetrachloroethane	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	1,1,2-Trichloroethane	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	1,1-Dichloroethane	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	1,1-Dichloroethylene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	1,1-Dichloropropene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	1,2,3-Trichlorobenzene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	1,2,3-Trichloropropane	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	1,2,4-Trichlorobenzene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	1,2,4-Trimethylbenzene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	1,2-Dichloroethane	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	1,2-Dichloropropane	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	1,3,5-Trimethylbenzene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	1,3-Dichloropropane	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	2,2-Dichloropropane	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	2-Butanone (MEK)	ND	ug/L	5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	Benzene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	Bromobenzene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	Bromochloromethane	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	Bromodichloromethane	8.5	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	Bromoethane	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	Bromoform	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	Bromomethane (Methyl Bromide)	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	Carbon disulfide	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	Carbon Tetrachloride	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	Chlorobenzene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	Chlorodibromomethane	2.1	ug/L	0.5	1

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Washington Aqueduct
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Samples Received on:
10/24/2018 1128

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	Chloroethane	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	Chloroform (Trichloromethane)	19	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	Chloromethane(Methyl Chloride)	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	cis-1,2-Dichloroethylene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	cis-1,3-Dichloropropene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	Dibromomethane	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	Dichlorodifluoromethane	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	Dichloromethane	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	Di-isopropyl ether	ND	ug/L	3	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	Ethyl benzene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	Hexachlorobutadiene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	Isopropylbenzene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	m,p-Xylenes	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	m-Dichlorobenzene (1,3-DCB)	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	Methyl Tert-butyl ether (MTBE)	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	Naphthalene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	n-Butylbenzene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	n-Propylbenzene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	o-Chlorotoluene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	o-Dichlorobenzene (1,2-DCB)	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	o-Xylene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	p-Chlorotoluene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	p-Dichlorobenzene (1,4-DCB)	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	p-Isopropyltoluene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	sec-Butylbenzene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	Styrene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	tert-amyl Methyl Ether	ND	ug/L	3	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	tert-Butyl Ethyl Ether	ND	ug/L	3	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	tert-Butylbenzene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	Tetrachloroethylene (PCE)	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	Toluene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	Total 1,3-Dichloropropene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	Total THM	30	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	Total xylenes	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	trans-1,2-Dichloroethylene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	trans-1,3-Dichloropropene	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	Trichloroethylene (TCE)	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	Trichlorofluoromethane	ND	ug/L	0.5	1

Rounding on totals after summation.
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U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
10/24/2018 1128

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	Trichlorotrifluoroethane(Freon 113)	ND	ug/L	0.5	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	Vinyl chloride (VC)	ND	ug/L	0.3	1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	1,2-Dichloroethane-d4	107	%		1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	4-Bromofluorobenzene	103	%		1
11/01/18	11/01/18 9:31	1128914	1128917	(EPA 524.2)	Toluene-d8	94	%		1

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Laboratory Comments

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Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Flags Legend:

LE - MRL Check recovery was above laboratory acceptance limits.

The Comments Report may be blank if there are no comments for this report.

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U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
10/24/2018 1114

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
GF (201810240581)						**Sampled on 10/22/2018 0950**			
		EPA 515.4 - Chlorophenoxy Herbicides							
11/05/18	11/06/18 13:00	1128830	1130344	(EPA 515.4)	2,4,5-T	ND	ug/L	0.2	1
11/05/18	11/06/18 13:00	1128830	1130344	(EPA 515.4)	2,4,5-TP (Silvex)	ND	ug/L	0.2	1
11/05/18	11/06/18 13:00	1128830	1130344	(EPA 515.4)	2,4-D	ND	ug/L	0.1	1
11/05/18	11/06/18 13:00	1128830	1130344	(EPA 515.4)	2,4-DB	ND	ug/L	2	1
11/05/18	11/06/18 13:00	1128830	1130344	(EPA 515.4)	3,5-Dichlorobenzoic acid	ND	ug/L	0.5	1
11/05/18	11/06/18 13:00	1128830	1130344	(EPA 515.4)	Acifluorfen	ND	ug/L	0.2	1
11/05/18	11/06/18 13:00	1128830	1130344	(EPA 515.4)	Bentazon	ND	ug/L	0.5	1
11/05/18	11/06/18 13:00	1128830	1130344	(EPA 515.4)	Dalapon	ND	ug/L	1	1
11/05/18	11/06/18 13:00	1128830	1130344	(EPA 515.4)	Dicamba	ND	ug/L	0.1	1
11/05/18	11/06/18 13:00	1128830	1130344	(EPA 515.4)	Dichlorprop	ND	ug/L	0.5	1
11/05/18	11/06/18 13:00	1128830	1130344	(EPA 515.4)	Dinoseb	ND	ug/L	0.2	1
11/05/18	11/06/18 13:00	1128830	1130344	(EPA 515.4)	Pentachlorophenol	ND	ug/L	0.04	1
11/05/18	11/06/18 13:00	1128830	1130344	(EPA 515.4)	Picloram	ND	ug/L	0.1	1
11/05/18	11/06/18 13:00	1128830	1130344	(EPA 515.4)	Tot DCPA Mono&Diacid Degradate	ND	ug/L	0.1	1
11/05/18	11/06/18 13:00	1128830	1130344	(EPA 515.4)	2,4-Dichlorophenyl acetic acid	84	%		1
11/05/18	11/06/18 13:00	1128830	1130344	(EPA 515.4)	4,4-Dibromooctafluorobiphenyl	134	%		1
		EPA 525.2 - Semivolatiles by GCMS							
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	2,4-DDD	ND	ug/L	0.1	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	2,4-DDE	ND	ug/L	0.1	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	2,4-DDT	ND	ug/L	0.1	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	2,4-Dinitrotoluene	ND	ug/L	0.1	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	2,6-Dinitrotoluene	ND	ug/L	0.1	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	4,4-DDD	ND	ug/L	0.1	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	4,4-DDE	ND	ug/L	0.1	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	4,4-DDT	ND	ug/L	0.1	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Acenaphthene	ND	ug/L	0.1	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Acenaphthylene	ND	ug/L	0.1	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Acetochlor	ND	ug/L	0.1	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Alachlor	ND	ug/L	0.05	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Aldrin	ND	ug/L	0.05	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Alpha-BHC	ND	ug/L	0.1	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	alpha-Chlordane	ND	ug/L	0.05	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Anthracene	ND	ug/L	0.02	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Atrazine	ND	ug/L	0.05	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Benz(a)Anthracene	ND	ug/L	0.05	1

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Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Benzo(a)pyrene	ND	ug/L	0.02	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Benzo(b)Fluoranthene	ND	ug/L	0.02	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Benzo(g,h,i)Perylene	ND	ug/L	0.05	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Benzo(k)Fluoranthene	ND	ug/L	0.02	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Beta-BHC	ND	ug/L	0.1	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Bromacil	ND	ug/L	0.2	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Butachlor	ND	ug/L	0.05	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Butylbenzylphthalate	ND	ug/L	0.5	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Caffeine by method 525mod	ND	ug/L	0.05	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Chlorobenzilate	ND	ug/L	0.1	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Chloroneb	ND	ug/L	0.1	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Chlorothalonil(Draconil,Bravo)	ND	ug/L	0.1	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Chlorpyrifos (Dursban)	ND	ug/L	0.05	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Chrysene	ND	ug/L	0.02	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Delta-BHC	ND	ug/L	0.1	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Di-(2-Ethylhexyl)adipate	ND	ug/L	0.6	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Di(2-Ethylhexyl)phthalate	ND	ug/L	0.6	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Diazinon (Qualitative)	ND	ug/L	0.1	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Dibenz(a,h)Anthracene	ND	ug/L	0.05	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Dichlorvos (DDVP)	ND	ug/L	0.05	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Dieldrin	ND	ug/L	0.2	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Diethylphthalate	ND	ug/L	0.5	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Dimethoate	ND	ug/L	0.1	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Dimethylphthalate	ND	ug/L	0.5	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Di-n-Butylphthalate	ND	ug/L	1	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Di-N-octylphthalate	ND	ug/L	0.1	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Endosulfan I (Alpha)	ND	ug/L	0.1	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Endosulfan II (Beta)	ND	ug/L	0.1	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Endosulfan Sulfate	ND	ug/L	0.1	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Endrin	ND	ug/L	0.2	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Endrin Aldehyde	ND	ug/L	0.1	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	EPTC	ND	ug/L	0.1	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Fluoranthene	ND	ug/L	0.1	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Fluorene	ND	ug/L	0.05	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	gamma-Chlordane	ND	ug/L	0.05	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Heptachlor	ND	ug/L	0.04	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Heptachlor Epoxide (isomer B)	ND	ug/L	0.05	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Hexachlorobenzene	ND	ug/L	0.05	1

Rounding on totals after summation.
(c) - indicates calculated results

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Tel: (626) 386-1100
Fax: (866) 988-3757
1 800 566 LABS (1 800 566 5227)

Laboratory Data

Report: 769966
Project: QUARTERLY
Group: Quarterly 2018

U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
10/24/2018 1114

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Hexachlorocyclopentadiene	ND	ug/L	0.05	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Indeno(1,2,3,c,d)Pyrene	ND	ug/L	0.05	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Isophorone	ND	ug/L	0.5	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Lindane	ND	ug/L	0.04	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Malathion	ND	ug/L	0.1	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Methoxychlor	ND	ug/L	0.1	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Metolachlor	ND	ug/L	0.05	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Metribuzin	ND	ug/L	0.05	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Molinate	ND	ug/L	0.1	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Naphthalene	ND	ug/L	0.3	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Parathion	ND	ug/L	0.1	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Pendimethalin	ND	ug/L	0.1	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Permethrin (mixed isomers)	ND (LE)	ug/L	0.2	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Phenanthrene	ND	ug/L	0.04	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Propachlor	ND	ug/L	0.05	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Pyrene	ND	ug/L	0.05	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Simazine	ND	ug/L	0.05	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Terbacil	ND	ug/L	0.1	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Terbuthylazine	ND	ug/L	0.1	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Thiobencarb (ELAP)	ND	ug/L	0.2	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	trans-Nonachlor	ND	ug/L	0.05	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Trifluralin	ND	ug/L	0.1	1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	1,3-Dimethyl-2-nitrobenzene	93	%		1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Acenaphthene-d10	112	%		1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Chrysene-d12	103	%		1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Perylene-d12	115	%		1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Phenanthrene-d10	110	%		1
10/30/18	11/02/18 22:20	1128186	1129215	(EPA 525.2)	Triphenylphosphate	111	%		1

Rounding on totals after summation.
(c) - indicates calculated results

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Laboratory Comments

Report: 769966
Project: QUARTERLY
Group: Quarterly 2018

U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Flags Legend:

LE - MRL Check recovery was above laboratory acceptance limits.

The Comments Report may be blank if there are no comments for this report.

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Tel: (626) 386-1100
Fax: (866) 988-3757
1 800 566 LABS (1 800 566 5227)

Laboratory Data

Report: 765738
Project: UCMR4
Group: DC0000002 DC WAS AM3

U.S. Army Corps of Engineers
Mike Chicoine
Washington Aqueduct
5900 MacArthur Blvd. NW
Washington, DC 20016

Samples Received on:
10/03/2018 1431

00010-EPD-Dale 18 (201810030416) **Sampled on 10/01/2018 1210**

Sample Type: EP
Sample Event: SEC7
Facility ID: 00010
Sample Point ID: EPD
PWSID: DC0000002
Static ID: EP

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
EPA 545 - UCMR4 545									
	10/12/18 2:27		1124222	(EPA 545)	Anatoxin-a	ND	ug/L	0.03	1
	10/12/18 2:27		1124222	(EPA 545)	Cylindrospermopsin	ND	ug/L	0.09	1
	10/12/18 2:27		1124222	(EPA 545)	L-Phenylalanine-d5	109	%		1
	10/12/18 2:27		1124222	(EPA 545)	Uracil-d4	116	%		1
EPA 546 - UCMR4 546									
	10/12/18 08:50			(EPA 546)	Total Microcystin	<0.300	ug/L	0.3	1
	10/12/18 08:50			(EPA 546)	Percent CV	6.2	%		1

Rounding on totals after summation.
(c) - indicates calculated results

Washington Aqueduct Daily Orthophosphate Data
01 November, 2018 To: 30 November, 2018

Date	Dalecarlia PO4 Dose mg/L	18 PO4 Residual mg/L	McMillan PO4 Dose mg/L	J PO4 Residual mg/L
11/01/18	2.80	2.41	2.50	2.56
11/02/18	2.80	2.38	2.50	2.55
11/03/18	2.87	2.30	2.50	2.54
11/04/18	2.86	2.33	2.50	2.49
11/05/18	2.80	2.27	2.50	2.52
11/06/18	2.78	2.71	2.50	2.61
11/07/18	2.69	2.65	2.50	2.48
11/08/18	2.55	2.73	2.50	2.48
11/09/18	2.51	2.39	2.50	2.48
11/10/18	2.51	no data[1]	2.50	no data[1]
11/11/18	2.51	2.51	2.50	2.47
11/12/18	2.51	no data[2]	2.50	2.60
11/13/18	2.53	2.55	2.50	2.50
11/14/18	2.59	2.32	2.50	2.51
11/15/18	2.60	2.39	2.50	2.41
11/16/18	2.60	2.35	2.50	2.45
11/17/18	2.60	2.35	2.50	2.38
11/18/18	2.60	2.34	2.50	2.41
11/19/18	2.60	2.36	2.50	2.41
11/20/18	2.60	2.41	2.50	2.52
11/21/18	2.60	2.26	2.50	2.37
11/22/18	2.60	2.32	2.52	2.42
11/23/18	2.60	2.33	2.58	2.50
11/24/18	2.60	no data[3]	2.60	2.43
11/25/18	2.60	no data[3]	2.60	2.42
11/26/18	2.60	2.30	2.60	2.46
11/27/18	2.60	2.47	2.60	2.64
11/28/18	2.60	2.29	2.59	2.56
11/29/18	2.60	2.29	2.50	2.87
11/30/18	2.60	2.20	2.50	2.27
Average	2.63	2.39	2.52	2.49
Maximum	2.87	2.73	2.60	2.87
Minimum	2.51	2.20	2.50	2.27

Finished water residuals (entry point to distribution system) are from daily grab samples analyzed for total orthophosphate by Washington Aqueduct Laboratory.

no data[1] = analysis not scheduled due to holiday.
no data[2] = sample not collected due to holiday.
no data[3] = sample not collected.

Washington Aqueduct Daily Turbidity, pH and Chlorine Data

01 November, 2018 To: 30 November, 2018

Date	#1 Avg. Turbidity	#15 Avg. Turbidity	#15 Max. Turbidity	#18 Avg. Turbidity	G Avg. Turbidity	G Max. Turbidity	J/BS Avg. Turbidity	#18 Avg. pH	J/BS Avg. pH	#18 Avg. Cl2	J/BS Avg. Cl2
11/01/18	4	0.03	0.03	0.15	0.01	0.02	0.05	7.70	7.66	3.68	3.73
11/02/18	3	0.02	0.02	0.15	0.01	0.01	0.05	7.76	7.62	3.67	3.70
11/03/18	4	0.02	0.02	0.14	0.01	0.02	0.05	7.69	7.75	3.65	3.59
11/04/18	25	0.03	0.03	0.13	0.01	0.02	0.06	7.69	7.78	3.74	3.67
11/05/18	37	0.03	0.03	0.13	0.01	0.01	0.05	7.64	7.67	3.60	3.72
11/06/18	20	0.03	0.03	0.19	0.02	0.02	0.06	7.68	7.69	3.75	3.69
11/07/18	17	0.03	0.03	0.28	0.02	0.02	0.07	7.74	7.67	3.44	3.74
11/08/18	24	0.03	0.03	0.09	0.02	0.02	0.06	7.79	7.65	3.59	3.68
11/09/18	18	0.02	0.03	0.13	0.02	0.02	0.06	7.79	7.66	3.63	3.80
11/10/18	11	0.02	0.02	0.13	0.02	0.02	0.07	7.72	7.64	3.59	3.78
11/11/18	10	0.02	0.02	0.09	0.02	0.02	0.06	7.75	7.67	3.15	3.83
11/12/18	16	0.02	0.02	0.05	0.02	0.02	0.06	7.72	7.69	3.69	3.71
11/13/18	16	0.02	0.02	0.04	0.02	0.02	0.07	7.62	7.66	3.81	3.72
11/14/18	16	0.02	0.02	0.04	0.02	0.02	0.06	7.71	7.73	3.72	3.77
11/15/18	10	0.02	0.03	0.04	0.02	0.02	0.07	7.72	7.68	3.80	3.75
11/16/18	10	0.02	0.02	0.05	0.02	0.02	0.06	7.73	7.67	3.75	3.76
11/17/18	11	0.02	0.02	0.05	0.02	0.02	0.06	7.67	7.70	3.75	3.71
11/18/18	10	0.02	0.02	0.09	0.02	0.02	0.06	7.68	7.70	3.72	3.79
11/19/18	10	0.02	0.02	0.10	0.02	0.02	0.05	7.65	7.63	3.74	3.80
11/20/18	9	0.02	0.02	0.10	0.02	0.02	0.03	7.80	7.64	3.75	3.81
11/21/18	8	0.02	0.02	0.09	0.02	0.03	0.03	7.69	7.71	3.77	3.79
11/22/18	6	0.01	0.01	0.09	0.02	0.02	0.03	7.74	7.70	3.75	3.70
11/23/18	7	0.01	0.01	0.09	0.02	0.02	0.03	7.70	7.71	3.75	3.75
11/24/18	6	0.01	0.01	0.09	0.02	0.02	0.03	7.69	7.68	3.56	3.74
11/25/18	12	0.02	0.02	0.10	0.02	0.02	0.03	7.64	7.71	3.75	3.78
11/26/18	55	0.02	0.02	0.11	0.02	0.02	0.03	7.69	7.69	3.86	3.80
11/27/18	50	0.02	0.02	0.20	0.02	0.03	0.03	7.67	7.68	3.72	3.68
11/28/18	17	0.02	0.09	0.16	0.04	0.07	0.06	7.68	7.79	3.55	3.90
11/29/18	9	0.02	0.02	0.13	0.02	0.04	0.05	7.75	7.72	3.65	3.74
11/30/18	7	0.02	0.02	0.11	0.02	0.02	0.04	7.71	7.67	3.94	3.71
Average	15	0.02	0.02	0.11	0.02	0.02	0.05	7.71	7.69	3.68	3.75
Maximum	55	0.03	0.09	0.28	0.04	0.07	0.07	7.80	7.79	3.94	3.90
Minimum	3	0.01	0.01	0.04	0.01	0.01	0.03	7.62	7.62	3.15	3.59

Data are from on-line analyzers except for pH. pH data are from grab samples analyzed a minumum of every 4 hours.

1=Raw water, 15= Dalecarlia Filtered, 18= Dalecarlia Finished, G=McMillan Filtered, J/BS=McMillan Finished

Units: Turbidity (NTU), Cl2 - Chlorine Residual (mg/L)

Average turbidity is calculated from the hourly turbidity readings for each day.

Maximum turbidity is the maximum of the hourly turbidimeter readings for each day.

Optimal Corrosion Control Treatment

Point-of-Entry pH Requirements

Month	Required pH	Dalecarlia Days Out of Range	McMillan Days Out of Range	Total # of Days with Excursions
Jan-18	7.7 ± 0.3	0	0	0
Feb-18	7.7 ± 0.3	0	0	0
Mar-18	7.7 ± 0.3	0	0	0
Apr-18	7.7 ± 0.3	0	0	0
May-18	7.7 ± 0.3	0	0	0
Jun-18	7.7 ± 0.3	0	0	0
Compliance Period Totals		0	0	0

Month	Required pH	Dalecarlia Days Out of Range	McMillan Days Out of Range	Total # of Days with Excursions
Jul-18	7.7 ± 0.3	0	0	0
Aug-18	7.7 ± 0.3	0	0	0
Sep-18	7.7 ± 0.3	0	0	0
Oct-18	7.7 ± 0.3	0	0	0
Nov-18	7.7 ± 0.3	0	0	0
Dec-18	7.7 ± 0.3			
Compliance Period Totals				

Point-of-Entry Orthophosphate Requirements

Month	Required orthophosphate	Dalecarlia Days Out of Range	McMillan Days Out of Range	Total # of Days with Excursions
Jan-18	0.5 - 5.0 mg/L	1	0	1
Feb-18	0.5 - 5.0 mg/L	0	0	0
Mar-18	0.5 - 5.0 mg/L	0	0	0
Apr-18	0.5 - 5.0 mg/L	0	0	0
May-18	0.5 - 5.0 mg/L	0	0	0
Jun-18	0.5 - 5.0 mg/L	0	0	0
Compliance Period Totals		0	0	0

Month	Required orthophosphate	Dalecarlia Days Out of Range	McMillan Days Out of Range	Total # of Days with Excursions
Jul-18	0.5 - 5.0 mg/L	0	0	0
Aug-18	0.5 - 5.0 mg/L	0	0	0
Sep-18	0.5 - 5.0 mg/L	0	0	0
Oct-18	0.5 - 5.0 mg/L	0	0	0
Nov-18	0.5 - 5.0 mg/L	0	0	0
Dec-18	0.5 - 5.0 mg/L			
Compliance Period Totals				

Note: An interruption of phosphate feed at Dalecarlia WTP due to feed system failure from approximately 0800 hours on 1/19/18 thru approximately 1600 hours on 1/20/18.

Treatment Techniques for Acrylamide and Epichlorohydrin

Washington Aqueduct certifies that when acrylamide and/or epichlorohydrin are used in drinking water treatment, the combination (or product) of dose and monomer level does not exceed the levels specified in 40 CFR 141.111.

Dalecarlia 95th Percentile Combined Filter Effluent Turbidity = 0.03 NTU

Dalecarlia Maximum Individual Filter Effluent Turbidity

Filter	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18
1	0.07	0.06	0.03	0.04	0.04	0.05	0.05	0.048	0.04	0.07	0.09
2	0.10	0.07	0.07	0.07	0.08	0.09	0.09	0.083	0.09	0.09	0.09
3	0.09	0.06	0.03	0.04	0.07	0.05	0.06	0.041	0.04	0.03	0.07
4	0.10	0.06	0.05	0.05	0.05	0.07	0.09	0.070	0.07	0.09	0.09
5	0.10	0.08	0.04	O/S	0.04	0.05	0.06	0.046	0.06	0.07	0.07
6	0.13	0.05	0.05	0.06	0.06	0.05	0.09	0.057	0.06	0.04	0.09
7	0.08	0.04	0.05	0.04	0.03	0.04	0.04	0.053	0.03	0.04	0.07
8	0.08	0.05	0.05	0.04	0.04	0.06	0.06	0.036	O/S	0.05	0.07
9	0.08	0.04	0.04	0.04	0.03	0.07	0.05	0.048	0.05	0.07	0.08
10	0.09	0.05	0.06	0.04	0.05	0.06	0.07	0.063	0.06	0.06	0.07
11	0.10	0.06	0.04	0.06	0.06	0.07	0.06	0.044	0.05	0.06	0.07
12	0.09	0.04	0.05	0.07	0.06	0.06	0.09	0.078	0.06	0.05	0.07
13	0.10	0.07	0.06	0.07	0.07	0.07	0.07	0.054	0.07	0.09	0.09
14	0.12	0.07	0.05	0.07	0.06	0.05	0.08	0.062	0.06	0.05	0.06
15	0.09	0.06	0.05	0.06	0.05	0.05	0.09	0.076	0.06	0.06	0.06
16	0.10	0.07	0.05	0.06	0.09	0.07	0.07	0.054	0.06	0.05	0.07
17	0.09	0.07	0.05	0.06	0.05	0.05	0.55	0.071	0.05	0.06	0.09
18	0.09	0.08	0.08	0.07	0.08	0.08	0.09	0.081	0.05	0.05	0.07
19	0.07	0.06	0.04	0.03	0.05	0.03	0.04	0.061	0.03	0.06	0.06
20	0.09	0.04	0.07	0.06	0.06	0.06	0.09	0.079	0.06	0.07	0.06
21	0.10	0.05	0.05	0.06	0.05	0.06	0.06	0.090	0.06	0.06	0.07
22	0.09	0.05	0.04	0.04	0.04	0.03	0.04	0.039	0.02	0.02	0.03
23	0.10	0.08	0.07	0.06	0.07	0.05	0.10	0.052	0.44	0.04	0.05
24	0.09	0.06	0.05	0.05	0.04	0.05	0.06	0.046	0.04	0.09	0.08
25	0.08	0.08	0.06	0.03	0.08	0.09	0.06	0.054	0.06	0.05	0.06
26	0.10	0.05	0.04	0.06	0.10	0.05	0.06	0.054	0.07	0.05	0.07
27	0.07	0.11	0.04	0.07	0.08	0.07	0.14	0.051	0.11	0.03	O/S
28	0.10	0.08	0.05	0.13	0.09	0.07	0.10	0.070	0.08	0.06	0.08
29	0.11	0.06	0.06	0.06	0.08	0.03	0.08	0.076	0.07	0.06	O/S
30	0.11	0.11	0.07	0.05	0.07	O/S	O/S	0.061	0.05	0.04	0.09
31	0.10	0.05	0.02	0.04	O/S	O/S	O/S	O/S	O/S	O/S	O/S
32	0.11	0.09	0.03	0.06	0.07	0.07	0.09	0.074	0.10	0.03	0.06
33	O/S	O/S	O/S	O/S	O/S	0.05	0.07	0.085	0.06	0.03	O/S
34	O/S	O/S	O/S	O/S	O/S	O/S	O/S	O/S	O/S	O/S	O/S
35	0.16	0.08	0.04	O/S	0.06	0.09	0.09	0.091	0.06	0.07	O/S
36	0.12	0.09	0.07	0.02	0.06	0.06	0.07	0.084	0.05	0.07	0.08

O/S indicates filter out of service

Note: This information is used for operational process control and is not for compliance determinations.

Monthly Report to Primacy Agency for Compliance Determination - Filtered Systems
01 November 2018 To: 30 November 2018

System/Treatment Plant: Washington Aqueduct - Dalecarlia
Type of Filtration: Conventional Treatment
Turbidity Limit: 0.3 NTU
PWSID: DC0000001

Combined Filter Effluent (CFE) Turbidity Performance Criteria:
A.Combined filter effluent monitoring has been conducted in accordance with the IESWTR except as noted:
No Exceptions

B. Minimum number of CFE turbidity measurements required for compliance (6 per day x no. days in operation):	180
Number of Hours in Month	720
Number of Hours in Month that WTP is Off Line	8
Total number of CFE turbidity measurements used for compliance:	712
Total number of CFE turbidity measurements that are less than or equal to 0.3 NTU:	712
Percentage of turbidity measurements meeting the specified limits:	100

C. Record the date and turbidity value for any CFE turbidity measurement exceeding 1 NTU:

Date	Turbidity, NTU

Individual Filter Effluent (IFE) Turbidity Performance Criteria
A. Individual filter effluent monitoring has been conducted in accordance with the IESWTR except as noted:
No Exceptions

B. Report the date, filter number, and turbidity value for any measurement exceeding 0.5 NTU for two consecutive 15 minute measurements after the first four hours after backwash:

Filter No.	Date	Time	Turbidity, NTU

C. Report the date, filter number, and turbidity value for any measurement exceeding 1.0 NTU for two consecutive 15 minute measurements:

Filter No.	Date	Time	Turbidity, NTU

D. Report the date of any failure to collect grab samples if continuous turbidity monitoring equipment is out of service more than 4 hours

E. Report the date of any failure to resume continuous turbidity monitoring more than 5 days after equipment failure

Additional Voluntary Information

	Date	*Time*	*Duration*
Plant out of service	*11/28/18*	*3:45 AM*	*approximately 8 hours*

Monthly Report to Primacy Agency for Compliance Determination - Filtered Systems
01 November 2018 To: 30 November 2018

System/Treatment Plant: Washington Aqueduct - Dalecarlia
Type of Filtration: Conventional Treatment
PWSID: DC0000001

Disinfection Performance Criteria

A. Point-of-Entry Minimum Disinfectant Residual Criteria

Date	Residual (mg/L)	Date	Residual (mg/L)	Date	Residual (mg/L)
11/1/18	3.56	11/12/18	3.49	11/23/18	3.50
11/2/18	3.59	11/13/18	3.67	11/24/18	3.39
11/3/18	3.54	11/14/18	3.60	11/25/18	3.68
11/4/18	3.68	11/15/18	3.60	11/26/18	3.66
11/5/18	3.42	11/16/18	3.66	11/27/18	3.48
11/6/18	3.55	11/17/18	3.66	11/28/18	3.40
11/7/18	2.68	11/18/18	3.60	11/29/18	3.31
11/8/18	3.52	11/19/18	3.65	11/30/18	3.82
11/9/18	3.46	11/20/18	3.64		
11/10/18	2.91	11/21/18	3.63		
11/11/18	2.49	11/22/18	3.63		

Days the Residual was < 0.2 mg/L: None

Date	Duration of Low Residual	Date Reported to Primacy Agency

Monthly Report to Primacy Agency for Compliance Determination - Filtered Systems
01 November 2018 To: 30 November 2018

System/Treatment Plant: Washington Aqueduct - McMillan
Type of Filtration: Conventional Treatment
Turbidity Limit: 0.3 NTU
PWSID: DC0000001

Combined Filter Effluent (CFE) Turbidity Performance Criteria:
A.Combined filter effluent monitoring has been conducted in accordance with the IESWTR except as noted:
No Exceptions

B. Minimum number of CFE turbidity measurements required for compliance (6 per day x no. days in operation):	180
Number of Hours in Month	720
Number of Hours in Month that WTP is Off Line	2
Total number of CFE turbidity measurements used for compliance:	718
Total number of CFE turbidity measurements that are less than or equal to 0.3 NTU:	718
Percentage of turbidity measurements meeting the specified limits:	100

C. Record the date and turbidity value for any CFE turbidity measurement exceeding 1 NTU:

Date	Turbidity, NTU

Individual Filter Effluent (IFE) Turbidity Performance Criteria
A. Individual filter effluent monitoring has been conducted in accordance with the IESWTR except as noted:
No Exceptions

B. Report the date, filter number, and turbidity value for any measurement exceeding 0.5 NTU for two consecutive 15 minute measurements after the first four hours after backwash:

C. Report the date, filter number, and turbidity value for any measurement exceeding 1.0 NTU for two consecutive 15 minute measurements:

D. Report the date of any failure to collect grab samples if continuous turbidity monitoring equipment is out of service more than 4 hours

E. Report the date of any failure to resume continuous turbidity monitoring more than 5 days after equipment failure

Additional Voluntary Information

	Date	*Time*	*Duration*
Plant out of service	*11/28/18*	*1:00 PM*	*approximately 1.0 hour*
	11/28/18	*4:15 PM*	*approximately 0.25 hour*
	11/28/18	*5:30 PM*	*approximately 0.25 hour*
	11/28/18	*6:30 PM*	*approximately 0.25 hour*

Monthly Report to Primacy Agency for Compliance Determination - Filtered Systems
01 November 2018 To: 30 November 2018

System/Treatment Plant: Washington Aqueduct - McMillan

Type of Filtration: Conventional Treatment
PWSID: DC0000001

Disinfection Performance Criteria
A. Point-of-Entry Minimum Disinfectant Residual Criteria

Date	Residual (mg/L)	Date	Residual (mg/L)	Date	Residual (mg/L)
11/1/18	3.60	11/12/18	3.64	11/23/18	3.62
11/2/18	3.50	11/13/18	3.68	11/24/18	3.59
11/3/18	3.47	11/14/18	3.75	11/25/18	3.64
11/4/18	3.62	11/15/18	3.70	11/26/18	3.71
11/5/18	3.58	11/16/18	3.72	11/27/18	3.57
11/6/18	3.40	11/17/18	3.67	11/28/18	3.69
11/7/18	3.62	11/18/18	3.71	11/29/18	3.36
11/8/18	3.54	11/19/18	3.20	11/30/18	3.58
11/9/18	3.72	11/20/18	3.69		
11/10/18	3.70	11/21/18	3.70		
11/11/18	3.70	11/22/18	3.57		

Days the Residual was < 0.2 mg/L: None

Date	Duration of Low Residual	Date Reported to Primacy Agency

Washington Aqueduct
McMillan Water Treatment Plant

Summary of Routine Monthly Monitoring Tests Results for November 2018

Optimization Assessment Software (OAS) Results

Settled Water Turbidity:

The settled water turbidity goal was met for the month during the time McMillan WTP plant was in service. Therefore, a requirement for Tier-2 monitoring was not triggered.

Individual Filter Turbidity:

The individual filter turbidity optimization goal was met for all filters during the time McMillan WTP was in service with the exception of November 28. On that day, challenging water quality conditions resulted in poor filterability. Settled water turbidity remained below 1.0 NTU and there was no indication of any breach of the silt curtain nor any other indication that the problem was related to the backwash recycle. Therefore, a requirement for Tier-2 monitoring was not triggered.

Monthly Tier-1 Sample Test Results

The results of the Tier-1 monitoring samples collected on November 13th are attached and show no abnormality. Therefore a requirement for Tier-2 monitoring was not triggered.

McMillan Filter Backwash Rule
Tier-1 Monitoring Report

Collection Date:	11/13/2018					
				1st Low Rate	2nd Low Rate	High Rate
	Location E	Location F	Location G	Backwash	Back Wash	Backwash
Collect Time	0:01	6:00	6:30	9:37	9:47	9:43
pH	6.97	7.13	7.20			
TOC (mg/L)	2.28	2.27	2.08	6.37	2.20	2.16
Turbidity (NTU)	0.55	0.50	0.02	34	0.65	2.2
Aluminum (mg/L)	0.147	0.116	0.015	20.0	0.125	0.278
Copper (mg/L)	0.003	0.008	0.009	0.33	0.018	0.037
Manganese (mg/L)	0.026	0.036	ND	1.48	0.065	0.168

	Location E	Location F	Location G
Collect Time	8:00	14:00	14:30
pH	7.04	7.26	7.22
TOC (mg/L)	2.12	2.23	2.05
Turbidity (NTU)	0.45	0.50	0.02
Aluminum (mg/L)	0.146	0.127	0.016
Copper (mg/L)	0.003	0.008	0.009
Manganese (mg/L)	0.028	0.037	ND

	Location E	Location F	Location G
Collect Time	16:00	22:00	22:30
pH	7.04	7.25	7.18
TOC (mg/L)	2.13	2.26	2.02
Turbidity (NTU)	0.40	0.35	0.02
Aluminum (mg/L)	0.132	0.115	0.016
Copper (mg/L)	0.003	0.007	0.008
Manganese (mg/L)	0.026	0.036	ND

Washington Aqueduct

McMillan Water Treatment Plant

95th Percentile of Monthly Turbidity Data*

Filter -->	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	Combined
Nov-18	**0.030**	**0.036**	**0.033**	**0.027**	**0.026**	**0.029**	**0.031**	**0.033**	**0.030**	**0.030**	**0.031**	**0.021**	**0.028**
Oct-18	0.028	0.032	0.028	0.029	0.024	0.030	0.029	0.032	0.019	0.019	0.023	0.019	0.026
Sep-18	0.031	0.028	0.033	0.028	0.022	0.036	0.024	0.037	0.022	0.029	0.026	0.018	0.025
Aug-18	0.035	0.030	0.031	0.033	0.033	0.034	0.034	0.034	0.024	0.024	0.025	0.024	0.031
Jul-18	0.047	0.035	0.040	0.046	0.048	0.043	0.045	0.046	0.030	0.028	0.034	0.028	0.039
Jun-18	0.045	0.033	0.045	0.045	0.044	0.042	0.042	0.038	0.041	0.032	0.036	0.029	0.040
May-18	0.040	0.035	0.047	0.044	0.041	0.045	0.042	0.043	0.044	0.035	0.040	0.032	0.042
Apr-18	0.030	0.037	0.040	0.033	0.032	0.036	0.029	0.029	0.030	0.025	0.025	0.024	0.028
Mar-18	0.023	0.020	0.024	0.022	0.021	0.024	0.020	0.023	0.020	0.017	0.021	0.018	0.021
Feb-18	0.034	0.017	0.020	0.018	0.021	0.033	0.018	0.029	0.019	0.023	0.020	0.021	0.023
Jan-18	0.030	0.033	0.037	0.032	0.028	0.032	0.029	0.039	0.028	0.028	0.030	0.024	0.029
Dec-17	0.027	0.025	0.031	0.023	0.024	0.025	0.027	0.022	0.023	0.020	0.022	0.019	0.023
Nov-17	0.031	0.034	0.036	0.034	0.036	0.036	0.038	0.037	0.033	0.028	0.038	0.029	0.025
Oct-17	0.040	0.043	0.050	0.045	0.042	0.043	0.046	0.045	0.039	0.039	0.040	0.034	0.037

* *Above 95th Percentile numbers were computed using all 15 minute turbidity data of the month.*

Plant Name	**Washington Aqueduct - McMillan WTP**
PWS #	
Max. settled water turbidity goal	**2.0**
Filtered water turbidity optimization goal	**0.10**
Filtered water turbidity regulation	**0.30**

Click on this Button to **CLEAR** the Database

Instruction to users: Input plant name and turbidity goals above. Input start date and turbidity data below. The database will hold 366 days of data. The turbidity data entry cells will turn yellow if the value exceeds the process goal. Following data input, develop the reports by clicking the UPDATE button.

Click on this Button to **UPDATE** the Reports

Data Entry Area

	Raw	Sed 1	Sed 2	Sed 3	Sed 4	Filter 1	Filter 2	Filter 3	Filter 4	Filter 5	Filter 6	Filter 7	Filter 8	Filter 9	Filter 10	Filter 11	Filter 12	Combined
1/1/2018																		
1/2/2018																		
1/3/2018																		
1/4/2018	2				1.05	0.04	0.03	0.05	0.03	0.03	0.04	0.08	0.07	0.04	0.02	0.06	0.02	0.03
1/5/2018	2				0.96	0.02	0.03	0.04	0.03	0.04	0.03	0.02	0.03	0.02	0.04	0.02	0.04	0.02
1/6/2018	2				0.89	0.03	0.03	0.03	0.07	0.02	0.03	0.06	0.06	0.02	0.02	0.04	0.02	0.03
1/7/2018	1				0.64	0.03	0.03	0.05	0.03	0.02	0.06	0.03	0.04	0.04	0.04	0.04	0.02	0.03
1/8/2018	2				0.59	0.03	0.05	0.04	0.04	0.06	0.03	0.03	0.04	0.02	0.03	0.03	0.04	0.03
1/9/2018	2				0.48	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.05	0.04	0.02	0.03	0.02	0.03
1/10/2018	2				0.59	0.02	0.05	0.06	0.02	0.04	0.03	0.02	0.03	0.03	0.04	0.03	0.02	0.02
1/11/2018	4				0.43	0.03	0.03	0.02	0.03	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.03	0.02
1/12/2018	3				0.39	0.03	0.02	0.03	0.02	0.02	0.03	0.02	0.03	0.03	0.03	0.04	0.02	0.02
1/13/2018	3				0.42	0.02	0.03	0.03	0.03	0.04	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.02
1/14/2018	127				0.39	0.03	0.02	0.03	0.03	0.02	0.03	0.03	0.03	0.02	0.02	0.03	0.02	0.02
1/15/2018	142				0.42	0.02	0.03	0.03	0.02	0.02	0.03	0.02	0.02	0.03	0.03	0.03	0.02	0.02
1/16/2018																		
1/17/2018																		
1/18/2018																		
1/19/2018	26					0.03	0.04	0.05	0.02	0.03	0.03	0.02	0.02	0.02	0.03	0.03	0.02	0.02
1/20/2018	24				0.62	0.02	0.04	0.03	0.03	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.03	0.02
1/21/2018	17				0.56	0.03	0.02	0.03	0.03	0.02	0.03	0.02	0.04	0.02	0.02	0.03	0.02	0.02
1/22/2018	20				0.34	0.03	0.03	0.03	0.02	0.02	0.03	0.02	0.02	0.03	0.04	0.03	0.02	0.02
1/23/2018	12				0.54	0.03	0.03	0.02	0.03	0.03	0.03	0.02	0.04	0.02	0.02	0.03	0.03	0.02
1/24/2018	10				0.37	0.03	0.02	0.03	0.02	0.02	0.04	0.04	0.02	0.03	0.02	0.04	0.02	0.02
1/25/2018	147				0.46	0.02	0.04	0.05	0.02	0.03	0.05	0.02	0.02	0.02	0.05	0.02	0.02	0.02
1/26/2018	122				0.36	0.03	0.02	0.02	0.04	0.03	0.03	0.02	0.04	0.02	0.02	0.03	0.02	0.02
1/27/2018	46				0.30	0.03	0.02	0.03	0.02	0.02	0.04	0.03	0.02	0.03	0.02	0.03	0.02	0.02
1/28/2018	16				0.28	0.02	0.03	0.03	0.02	0.02	0.04	0.02	0.03	0.02	0.05	0.02	0.02	0.02
1/29/2018	15				0.35	0.03	0.03	0.02	0.03	0.02	0.02	0.02	0.05	0.02	0.02	0.02	0.03	0.02
1/30/2018	12				0.33	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.03	0.02	0.02
1/31/2018																		
2/1/2018	8																	
2/2/2018	10																	
2/3/2018	8																	
2/4/2018	9																	
2/5/2018	61																	
2/6/2018	31				0.55	0.03	0.03	0.02	0.02	0.04	0.07	0.06	0.02	0.05	0.03	0.04	0.03	0.03
2/7/2018	16				0.40	0.03	0.04	0.04	0.02	0.03	0.05	0.02	0.05	0.02	0.05	0.02	0.02	0.03
2/8/2018	30				0.41	0.05	0.03	0.02	0.04	0.05	0.02	0.02	0.09	0.02	0.02	0.02	0.04	0.03
2/9/2018	41				0.39	0.04	0.01	0.02	0.02	0.02	0.03	0.03	0.02	0.02	0.02	0.04	0.02	0.02

2/10/2018	48				0.39	0.02	0.01	0.02	0.01	0.02	0.03	0.02	0.04	0.02	0.03	0.02	0.02	0.02
2/11/2018	46				0.68	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.05	0.02	0.02	0.02	0.02	0.02
2/12/2018	88				0.60	0.03	0.01	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.01	0.02	0.02	0.02
2/13/2018	131				0.62	0.02	0.01	0.02	0.01	0.02	0.04	0.01	0.02	0.02	0.02	0.02	0.02	0.02
2/14/2018	83				0.36	0.03	0.02	0.01	0.02	0.02	0.02	0.01	0.03	0.01	0.02	0.02	0.02	0.02
2/15/2018	49				0.39	0.05	0.01	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02
2/16/2018	37				0.42	0.07	0.02	0.03	0.01	0.02	0.04	0.02	0.03	0.02	0.03	0.02	0.02	0.02
2/17/2018	25				0.38	0.04	0.04	0.02	0.02	0.04	0.02	0.02	0.04	0.01	0.04	0.02	0.02	0.02
2/18/2018	34				0.44	0.07	0.01	0.02	0.04	0.03	0.04	0.04	0.02	0.03	0.02	0.03	0.03	0.02
2/19/2018	67				0.33	0.02	0.01	0.02	0.01	0.02	0.05	0.02	0.03	0.02	0.04	0.02	0.02	0.02
2/20/2018	55				0.32	0.03	0.02	0.02	0.01	0.02	0.02	0.01	0.04	0.01	0.03	0.02	0.02	0.02
2/21/2018	41				0.48	0.12	0.01	0.01	0.05	0.02	0.05	0.03	0.02	0.02	0.01	0.03	0.08	0.03
2/22/2018	23				0.44	0.02	0.01	0.02	0.01	0.02	0.05	0.02	0.02	0.03	0.02	0.02	0.02	0.02
2/23/2018	23				0.39	0.02	0.01	0.02	0.01	0.02	0.02	0.01	0.03	0.02	0.02	0.01	0.02	0.02
2/24/2018	20				0.28	0.03	0.01	0.01	0.01	0.02	0.03	0.02	0.02	0.01	0.01	0.02	0.02	0.02
2/25/2018	22				0.25	0.02	0.01	0.02	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
2/26/2018	26				0.34	0.02	0.01	0.02	0.01	0.01	0.02	0.01	0.03	0.01	0.02	0.02	0.02	0.01
2/27/2018	56				0.32	0.02	0.02	0.01	0.02	0.02	0.02	0.01	0.02	0.01	0.01	0.01	0.02	0.02
2/28/2018	72				0.75	0.02	0.01	0.01	0.01	0.02	0.03	0.02	0.02	0.02	0.01	0.03	0.02	0.02
3/1/2018	41				0.25	0.02	0.01	0.02	0.01	0.02	0.02	0.01	0.02	0.01	0.02	0.02	0.01	0.02
3/2/2018	36				1.16	0.04	0.02	0.02	0.01	0.02	0.03	0.02	0.02	0.02	0.02	0.03	0.02	0.02
3/3/2018	54				0.84	0.05	0.02	0.07	0.05	0.02	0.05	0.06	0.03	0.06	0.05	0.06	0.03	0.04
3/4/2018	53				0.59	0.02	0.01	0.03	0.01	0.02	0.02	0.02	0.03	0.02	0.03	0.02	0.02	0.03
3/5/2018	27				0.34	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02
3/6/2018	22				0.26	0.03	0.02	0.02	0.01	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02
3/7/2018	11				0.54	0.03	0.01	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02
3/8/2018	11				0.28	0.02	0.01	0.03	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
3/9/2018	10				0.26	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.02
3/10/2018	10				0.30	0.02	0.01	0.02	0.02	0.02	0.03	0.02	0.02	0.01	0.01	0.02	0.02	0.02
3/11/2018	11				0.29	0.02	0.01	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.03	0.02
3/12/2018	7				0.24	0.02	0.02	0.02	0.01	0.02	0.02	0.01	0.03	0.01	0.02	0.02	0.02	0.02
3/13/2018	5				0.29	0.02	0.01	0.01	0.01	0.02	0.02	0.01	0.02	0.01	0.02	0.01	0.01	0.02
3/14/2018	6				0.24	0.02	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.02	0.02	0.02
3/15/2018	11				0.35	0.02	0.01	0.03	0.01	0.02	0.02	0.01	0.02	0.02	0.02	0.02	0.03	0.02
3/16/2018	17				0.35	0.02	0.01	0.02	0.01	0.01	0.02	0.01	0.02	0.01	0.02	0.02	0.02	0.02
3/17/2018	6				0.25	0.02	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02
3/18/2018	4				0.17	0.02	0.01	0.01	0.03	0.02	0.02	0.01	0.01	0.01	0.01	0.02	0.02	0.02
3/19/2018	3				0.21	0.02	0.01	0.02	0.01	0.02	0.02	0.01	0.02	0.02	0.02	0.02	0.02	0.02
3/20/2018	4				0.20	0.02	0.02	0.02	0.01	0.02	0.02	0.01	0.02	0.01	0.02	0.02	0.01	0.02
3/21/2018	4				0.21	0.02	0.01	0.01	0.02	0.02	0.02	0.01	0.02	0.01	0.01	0.01	0.01	0.02
3/22/2018	5				0.20	0.02	0.01	0.01	0.01	0.02	0.03	0.03	0.01	0.01	0.01	0.01	0.03	0.02
3/23/2018	4				0.19	0.02	0.01	0.04	0.01	0.02	0.02	0.01	0.01	0.04	0.02	0.04	0.02	0.02
3/24/2018	4				0.24	0.02	0.02	0.02	0.01	0.02	0.02	0.01	0.04	0.01	0.02	0.01	0.02	0.02
3/25/2018	5				0.18	0.04	0.01	0.01	0.02	0.02	0.04	0.01	0.02	0.01	0.01	0.01	0.02	0.02
3/26/2018	5				0.22	0.02	0.01	0.01	0.01	0.02	0.02	0.03	0.02	0.01	0.01	0.03	0.02	0.02
3/27/2018	7				0.30	0.02	0.01	0.02	0.01	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.02	0.02
3/28/2018	6				0.27	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.06	0.02	0.02	0.02	0.02	0.02
3/29/2018	6				0.26	0.04	0.02	0.02	0.03	0.02	0.03	0.02	0.02	0.02	0.02	0.01	0.01	0.02
3/30/2018	10				0.27	0.02	0.02	0.03	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.03	0.02	0.02
3/31/2018	14				0.34	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.03	0.04	0.02	0.02	0.02
4/1/2018	17				0.27	0.02	0.03	0.03	0.02	0.03	0.03	0.02	0.03	0.03	0.02	0.02	0.02	0.03
4/2/2018	19				0.33	0.03	0.03	0.03	0.04	0.03	0.04	0.19	0.03	0.03	0.02	0.02	0.02	0.03
4/3/2018	15				0.35	0.03	0.03	0.06	0.03	0.03	0.04	0.03	0.03	0.03	0.02	0.03	0.03	0.03
4/4/2018	14				0.45	0.03	0.05	0.05	0.03	0.03	0.03	0.03	0.08	0.03	0.03	0.02	0.02	0.06

4/5/2018	38				0.55	0.04	0.04	0.04	0.04	0.03	0.05	0.02	0.03	0.03	0.02	0.02	0.02	0.03
4/6/2018	40				0.41	0.03	0.03	0.04	0.03	0.03	0.05	0.04	0.04	0.04	0.02	0.04	0.04	0.03
4/7/2018	32				0.38	0.03	0.04	0.06	0.03	0.05	0.03	0.03	0.04	0.04	0.04	0.03	0.02	0.03
4/8/2018	26				0.32	0.03	0.04	0.04	0.04	0.03	0.03	0.02	0.03	0.03	0.02	0.02	0.02	0.03
4/9/2018	21				0.32	0.02	0.03	0.03	0.03	0.03	0.03	0.05	0.02	0.02	0.02	0.02	0.03	0.03
4/10/2018	4				0.44	0.02	0.03	0.03	0.02	0.02	0.03	0.02	0.03	0.04	0.02	0.02	0.02	0.03
4/11/2018	11				0.31	0.02	0.03	0.03	0.02	0.04	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.04
4/12/2018	11				0.28	0.02	0.03	0.02	0.03	0.02	0.05	0.03	0.02	0.02	0.02	0.02	0.03	0.02
4/13/2018	15				0.29	0.02	0.02	0.03	0.03	0.02	0.02	0.02	0.06	0.03	0.02	0.03	0.02	0.02
4/14/2018	10				0.30	0.02	0.03	0.03	0.05	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.03
4/15/2018	8				0.30	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.02	0.02	0.02	0.01	0.02	0.02
4/16/2018	233				0.28	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.03	0.02	0.02
4/17/2018	183				0.31	0.03	0.04	0.04	0.03	0.04	0.03	0.02	0.02	0.03	0.03	0.02	0.02	0.03
4/18/2018	181				0.32	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02
4/19/2018	398				0.44	0.03	0.03	0.03	0.03	0.02	0.03	0.02	0.02	0.03	0.02	0.02	0.04	0.02
4/20/2018	161				0.56	0.03	0.04	0.05	0.03	0.03	0.03	0.03	0.02	0.03	0.03	0.02	0.02	0.03
4/21/2018	91				0.58	0.04	0.04	0.04	0.04	0.03	0.04	0.02	0.03	0.03	0.02	0.02	0.02	0.03
4/22/2018	24				0.65	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.02	0.03	0.02	0.03	0.03	0.03
4/23/2018	20				0.64	0.03	0.03	0.04	0.03	0.03	0.03	0.03	0.02	0.04	0.03	0.03	0.02	0.03
4/24/2018	17				0.61	0.03	0.03	0.03	0.03	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.03
4/25/2018	22				0.59	0.03	0.03	0.03	0.03	0.03	0.04	0.03	0.02	0.02	0.02	0.03	0.03	0.02
4/26/2018	22				0.48	0.02	0.04	0.03	0.03	0.02	0.03	0.02	0.02	0.03	0.02	0.03	0.02	0.02
4/27/2018	22				0.48	0.02	0.03	0.03	0.04	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
4/28/2018	31				0.39	0.02	0.02	0.02	0.03	0.02	0.03	0.02	0.02	0.02	0.02	0.05	0.02	0.02
4/29/2018	21				0.44	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02
4/30/2018	26				0.38	0.03	0.04	0.03	0.02	0.03	0.03	0.02	0.03	0.03	0.02	0.02	0.02	0.03
5/1/2018	16				0.42	0.03	0.04	0.05	0.05	0.03	0.04	0.04	0.03	0.04	0.03	0.04	0.04	0.03
5/2/2018	11				0.44	0.03	0.03	0.04	0.03	0.02	0.03	0.02	0.03	0.03	0.02	0.03	0.02	0.02
5/3/2018	12				0.39	0.03	0.14	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02
5/4/2018	13				0.38	0.03	0.03	0.02	0.05	0.03	0.03	0.03	0.02	0.02	0.02	0.07	0.02	0.02
5/5/2018	10				0.39	0.03	0.02	0.03	0.04	0.02	0.03	0.02	0.02	0.03	0.02	0.03	0.02	0.02
5/6/2018	7				0.35	0.02	0.03	0.03	0.03	0.02	0.02	0.02	0.03	0.02	0.02	0.04	0.02	0.02
5/7/2018	10				0.32	0.03	0.03	0.02	0.03	0.02	0.03	0.02	0.03	0.02	0.02	0.12	0.02	0.02
5/8/2018	12				0.37	0.03	0.03	0.04	0.03	0.02	0.03	0.02	0.02	0.03	0.02	0.17	0.02	0.02
5/9/2018	26				0.33	0.03	0.04	0.04	0.03	0.04	0.03	0.03	0.05	0.03	0.03	0.03	0.03	0.03
5/10/2018	31				0.55	0.04	0.04	0.04	0.10	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.04	0.12
5/11/2018	23				0.42	0.04	0.02	0.02	0.03	0.04	0.05	0.03	0.03	0.03	0.02	0.03	0.03	0.03
5/12/2018	25				0.42	0.03	0.03	0.04	0.03	0.03	0.03	0.03	0.04	0.03	0.03	0.03	0.02	0.03
5/13/2018	28				0.44	0.04	0.03	0.03	0.04	0.03	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03
5/14/2018	10				0.43	0.04	0.03	0.06	0.04	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.04
5/15/2018	16				0.47	0.05	0.03	0.03	0.06	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.04	0.03
5/16/2018	640				0.45	0.04	0.04	0.04	0.04	0.03	0.04	0.03	0.05	0.04	0.04	0.03	0.03	0.03
5/17/2018	198				0.71	0.04	0.03	0.03	0.04	0.04	0.03	0.03	0.04	0.03	0.03	0.04	0.03	0.03
5/18/2018	227				1.01	0.04	0.03	0.02	0.04	0.03	0.05	0.06	0.03	0.05	0.04	0.03	0.04	0.03
5/19/2018	191				1.52	0.03	0.07	0.04	0.04	0.05	0.04	0.04	0.06	0.03	0.04	0.05	0.02	0.04
5/20/2018	184				2.17	0.04	0.03	0.04	0.06	0.03	0.06	0.05	0.04	0.07	0.03	0.03	0.04	0.04
5/21/2018	118				1.90	0.04	0.05	0.06	0.06	0.06	0.05	0.06	0.05	0.05	0.05	0.04	0.03	0.05
5/22/2018	67				2.28	0.06	0.04	0.05	0.08	0.06	0.05	0.05	0.08	0.07	0.04	0.04	0.05	0.05
5/23/2018	72				2.18	0.04	0.03	0.06	0.05	0.05	0.06	0.05	0.06	0.05	0.04	0.06	0.03	0.05
5/24/2018	72				2.10	0.05	0.03	0.05	0.04	0.06	0.04	0.04	0.04	0.05	0.03	0.06	0.04	0.04
5/25/2018	42				1.72	0.03	0.03	0.06	0.02	0.03	0.05	0.06	0.03	0.05	0.07	0.03	0.03	0.04
5/26/2018	40				1.63	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.04	0.04	0.02	0.04	0.03	0.03
5/27/2018	35				1.21	0.03	0.02	0.04	0.02	0.03	0.04	0.03	0.02	0.04	0.02	0.03	0.03	0.03
5/28/2018	30				1.05	0.02	0.02	0.03	0.02	0.02	0.03	0.02	0.03	0.03	0.02	0.03	0.02	0.02

5/29/2018	31				1.48	0.02	0.01	0.03	0.02	0.02	0.03	0.02	0.02	0.03	0.02	0.02	0.03	0.02
5/30/2018	34				0.74	0.02	0.02	0.03	0.01	0.02	0.03	0.02	0.02	0.02	0.02	0.03	0.02	0.02
5/31/2018	28				0.61	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.03	0.02	0.02
6/1/2018	27				0.46	0.02	0.01	0.03	0.01	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02
6/2/2018	41				0.47	0.02	0.02	0.03	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02
6/3/2018	170				0.48	0.03	0.02	0.03	0.02	0.03	0.03	0.02	0.02	0.04	0.02	0.03	0.05	0.02
6/4/2018	333				0.56	0.02	0.02	0.03	0.02	0.02	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02
6/5/2018	422				0.57	0.03	0.02	0.03	0.02	0.02	0.03	0.02	0.02	0.03	0.02	0.02	0.02	0.02
6/6/2018	180				0.63	0.03	0.02	0.04	0.02	0.03	0.04	0.03	0.04	0.04	0.02	0.03	0.03	0.03
6/7/2018	158				1.59	0.04	0.04	0.07	0.05	0.06	0.04	0.04	0.04	0.05	0.04	0.04	0.03	0.04
6/8/2018	53				1.74	0.06	0.03	0.06	0.04	0.04	0.04	0.03	0.04	0.05	0.03	0.05	0.05	0.05
6/9/2018	43				2.27	0.03	0.04	0.06	0.03	0.05	0.06	0.06	0.04	0.05	0.03	0.03	0.03	0.04
6/10/2018	30				1.77	0.04	0.03	0.06	0.03	0.04	0.03	0.03	0.03	0.04	0.03	0.03	0.02	0.03
6/11/2018	28				1.22	0.02	0.02	0.03	0.02	0.03	0.03	0.03	0.03	0.04	0.03	0.03	0.02	0.03
6/12/2018	126				0.91	0.03	0.02	0.03	0.02	0.03	0.03	0.03	0.02	0.03	0.02	0.02	0.02	0.03
6/13/2018	141				0.92	0.03	0.02	0.03	0.02	0.03	0.03	0.02	0.03	0.03	0.02	0.03	0.03	0.03
6/14/2018	99				0.76	0.03	0.03	0.04	0.03	0.03	0.04	0.03	0.03	0.03	0.03	0.03	0.02	0.03
6/15/2018	99				0.75	0.03	0.02	0.04	0.03	0.03	0.03	0.03	0.03	0.04	0.03	0.03	0.02	0.03
6/16/2018	41				0.81	0.03	0.03	0.04	0.03	0.04	0.05	0.05	0.02	0.04	0.03	0.03	0.03	0.03
6/17/2018	25				0.89	0.03	0.04	0.05	0.03	0.04	0.04	0.04	0.02	0.04	0.03	0.03	0.02	0.03
6/18/2018	26				1.06	0.03	0.02	0.03	0.02	0.03	0.03	0.02	0.03	0.04	0.02	0.03	0.03	0.03
6/19/2018	20				0.99	0.02	0.03	0.04	0.02	0.03	0.04	0.03	0.02	0.03	0.02	0.03	0.02	0.03
6/20/2018	19				0.84	0.03	0.02	0.03	0.02	0.03	0.03	0.03	0.02	0.03	0.03	0.03	0.02	0.03
6/21/2018	19				0.79	0.02	0.02	0.03	0.02	0.03	0.04	0.03	0.02	0.04	0.02	0.03	0.03	0.03
6/22/2018	20				0.86	0.02	0.02	0.04	0.03	0.03	0.03	0.03	0.02	0.03	0.03	0.02	0.02	0.03
6/23/2018	19				0.79	0.03	0.02	0.03	0.03	0.03	0.03	0.02	0.03	0.03	0.02	0.03	0.02	0.03
6/24/2018	19				0.65	0.02	0.02	0.03	0.06	0.03	0.03	0.03	0.03	0.04	0.02	0.03	0.03	0.03
6/25/2018	121				0.67	0.03	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.03	0.02	0.03
6/26/2018	111				0.81	0.03	0.02	0.03	0.02	0.03	0.03	0.03	0.04	0.03	0.02	0.04	0.03	0.03
6/27/2018	89				1.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.02	0.03	0.02	0.04
6/28/2018	37				1.23	0.05	0.04	0.04	0.05	0.05	0.04	0.04	0.04	0.03	0.04	0.04	0.03	0.04
6/29/2018	23				1.16	0.05	0.04	0.06	0.05	0.06	0.06	0.06	0.04	0.04	0.03	0.04	0.03	0.05
6/30/2018	17				1.30	0.05	0.03	0.04	0.05	0.06	0.04	0.05	0.04	0.03	0.03	0.03	0.03	0.04
7/1/2018	14				1.27	0.05	0.02	0.03	0.04	0.04	0.03	0.03	0.04	0.03	0.02	0.03	0.02	0.03
7/2/2018	18				1.26	0.03	0.03	0.03	0.03	0.04	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.03
7/3/2018	15				1.37	0.03	0.02	0.03	0.03	0.03	0.03	0.03	0.06	0.02	0.02	0.03	0.02	0.02
7/4/2018	10				1.33	0.03	0.02	0.03	0.03	0.04	0.04	0.03	0.06	0.02	0.02	0.02	0.02	0.03
7/5/2018	10				1.28	0.03	0.03	0.03	0.04	0.03	0.03	0.03	0.05	0.02	0.02	0.02	0.02	0.03
7/6/2018	7				1.37	0.04	0.03	0.03	0.03	0.04	0.04	0.03	0.04	0.03	0.02	0.03	0.03	0.03
7/7/2018	9				1.21	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.02	0.02	0.03	0.03
7/8/2018	9				1.17	0.05	0.03	0.03	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.03
7/9/2018	8				1.17	0.04	0.03	0.04	0.04	0.05	0.05	0.04	0.05	0.03	0.03	0.03	0.04	0.04
7/10/2018	8				1.41	0.05	0.04	0.04	0.05	0.04	0.05	0.04	0.04	0.03	0.03	0.03	0.04	0.04
7/11/2018	6				1.48	0.05	0.04	0.05	0.05	0.06	0.06	0.04	0.06	0.03	0.03	0.04	0.03	0.05
7/12/2018	4				1.47	0.06	0.04	0.05	0.06	0.05	0.05	0.05	0.04	0.03	0.03	0.03	0.03	0.04
7/13/2018	4				1.44	0.05	0.04	0.05	0.05	0.06	0.05	0.05	0.07	0.04	0.03	0.04	0.03	0.04
7/14/2018	4				1.57	0.05	0.04	0.04	0.06	0.06	0.04	0.05	0.05	0.03	0.03	0.04	0.03	0.04
7/15/2018	4				1.99	0.04	0.03	0.04	0.04	0.05	0.05	0.04	0.05	0.03	0.03	0.03	0.03	0.03
7/16/2018	5				2.12	0.04	0.03	0.03	0.04	0.04	0.04	0.04	0.03	0.02	0.02	0.03	0.02	0.03
7/17/2018	3				2.30	0.03	0.03	0.04	0.03	0.04	0.03	0.03	0.04	0.03	0.02	0.03	0.02	0.03
7/18/2018	13				1.78	0.03	0.03	0.03	0.04	0.03	0.04	0.03	0.03	0.02	0.02	0.02	0.02	0.03
7/19/2018	8				1.96	0.03	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.03	0.02	0.03
7/20/2018	3				1.97	0.03	0.03	0.02	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02
7/21/2018	3				1.93	0.03	0.03	0.03	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.03

7/22/2018	210				1.69	0.03	0.02	0.03	0.02	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02
7/23/2018	210				1.83	0.03	0.03	0.03	0.03	0.03	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.02
7/24/2018	169				1.91	0.03	0.02	0.03	0.02	0.03	0.03	0.02	0.03	0.02	0.02	0.02	0.02	0.02
7/25/2018	150				2.17	0.03	0.02	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02
7/26/2018	68				1.94	0.03	0.02	0.03	0.03	0.03	0.03	0.02	0.03	0.02	0.02	0.02	0.02	0.02
7/27/2018	117				2.03	0.02	0.02	0.02	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02
7/28/2018	113				1.80	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.02
7/29/2018	102				1.75	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.02	0.02
7/30/2018	37				1.83	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.02
7/31/2018	28				1.88	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.02	0.02
8/1/2018	58				1.83	0.03	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.02
8/2/2018	55				1.97	0.02	0.02	0.03	0.02	0.02	0.03	0.02	0.03	0.02	0.02	0.02	0.02	0.02
8/3/2018	77				2.01	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02
8/4/2018	77				1.98	0.03	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.02
8/5/2018	210				1.97	0.02	0.02	0.03	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02
8/6/2018	155				1.87	0.03	0.02	0.04	0.03	0.02	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.02
8/7/2018	63				1.81	0.03	0.02	0.02	0.03	0.02	0.03	0.02	0.03	0.02	0.02	0.02	0.02	0.02
8/8/2018	34				1.88	0.02	0.02	0.03	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02
8/9/2018	21				1.82	0.03	0.02	0.02	0.03	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02
8/10/2018	23				1.75	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02
8/11/2018	25				1.89	0.03	0.02	0.03	0.03	0.02	0.02	0.02	0.03	0.01	0.02	0.02	0.02	0.02
8/12/2018	25				2.06	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02
8/13/2018	19				2.15	0.03	0.02	0.03	0.03	0.02	0.02	0.02	0.03	0.01	0.02	0.02	0.02	0.02
8/14/2018	45				2.06	0.03	0.02	0.02	0.02	0.03	0.03	0.02	0.03	0.02	0.02	0.02	0.02	0.02
8/15/2018	24				2.10	0.03	0.02	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.03
8/16/2018	19				1.93	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.03
8/17/2018	17				1.87	0.03	0.03	0.03	0.03	0.03	0.04	0.05	0.03	0.03	0.02	0.02	0.03	0.03
8/18/2018	17				1.81	0.03	0.03	0.04	0.04	0.03	0.03	0.04	0.04	0.02	0.02	0.03	0.02	0.03
8/19/2018	9				1.79	0.03	0.03	0.03	0.03	0.03	0.04	0.03	0.03	0.02	0.02	0.02	0.02	0.03
8/20/2018	17				1.48	0.04	0.03	0.03	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.03	0.03	0.03
8/21/2018	13				0.99	0.04	0.03	0.03	0.04	0.03	0.03	0.04	0.04	0.03	0.03	0.03	0.02	0.03
8/22/2018	535				0.72	0.04	0.04	0.04	0.03	0.04	0.04	0.04	0.04	0.03	0.02	0.03	0.03	0.03
8/23/2018	181				0.98	0.04	0.03	0.04	0.04	0.03	0.04	0.03	0.04	0.03	0.03	0.03	0.02	0.03
8/24/2018	99				1.41	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.03	0.02	0.02	0.02	0.02	0.03
8/25/2018	138				1.50	0.03	0.03	0.03	0.03	0.02	0.03	0.02	0.03	0.02	0.02	0.02	0.02	0.02
8/26/2018	118				1.69	0.03	0.03	0.02	0.03	0.02	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.03
8/27/2018	21				1.51	0.03	0.03	0.03	0.03	0.02	0.03	0.03	0.04	0.02	0.02	0.02	0.02	0.03
8/28/2018	15				1.73	0.03	0.02	0.03	0.03	0.03	0.03	0.03	0.04	0.02	0.02	0.02	0.02	0.03
8/29/2018	15				1.78	0.03	0.06	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.03
8/30/2018	11				1.78	0.03	0.03	0.02	0.03	0.02	0.02	0.02	0.03	0.02	0.02	0.03	0.02	0.02
8/31/2018	8				2.06	0.02	0.03	0.03	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02
9/1/2018	40				2.23	0.02	0.03	0.02	0.03	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02
9/2/2018	22				1.81	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02
9/3/2018	15				2.34	0.03	0.02	0.03	0.03	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02
9/4/2018	16				2.14	0.02	0.02	0.03	0.03	0.02	0.03	0.02	0.03	0.02	0.02	0.02	0.02	0.02
9/5/2018	16				2.24	0.03	0.03	0.03	0.03	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02
9/6/2018	9				2.51	0.03	0.02	0.03	0.02	0.02	0.03	0.02	0.03	0.02	0.02	0.02	0.02	0.02
9/7/2018	9				1.85	0.03	0.03	0.03	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02
9/8/2018	7				1.87	0.03	0.03	0.03	0.03	0.02	0.03	0.02	0.05	0.02	0.02	0.02	0.02	0.02
9/9/2018	27				1.36	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02
9/10/2018	273				1.40	0.02	0.02	0.02	0.04	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02
9/11/2018	220				1.55	0.02	0.03	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02
9/12/2018	187				1.74	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.03	0.01	0.02	0.02	0.02	0.02
9/13/2018	71				1.66	0.02	0.02	0.03	0.02	0.02	0.03	0.02	0.02	0.01	0.02	0.02	0.02	0.02

9/14/2018	57				1.66	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.03	0.01	0.02	0.02	0.02	0.02
9/15/2018	60				1.51	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.01	0.02	0.02	0.01	0.02
9/16/2018	48				1.43	0.02	0.02	0.03	0.02	0.02	0.03	0.02	0.03	0.01	0.02	0.03	0.02	0.02
9/17/2018	26				1.49	0.03	0.02	0.03	0.02	0.02	0.03	0.02	0.03	0.02	0.03	0.02	0.01	0.02
9/18/2018	29				1.26	0.03	0.03	0.04	0.02	0.03	0.04	0.03	0.04	0.03	0.02	0.03	0.02	0.03
9/19/2018	94				1.07	0.05	0.03	0.04	0.03	0.02	0.06	0.03	0.04	0.02	0.04	0.04	0.01	0.03
9/20/2018	90				1.40	0.03	0.04	0.04	0.02	0.03	0.04	0.03	0.04	0.03	0.02	0.03	0.02	0.03
9/21/2018	77				1.33	0.05	0.05	0.06	0.05	0.03	0.04	0.04	0.06	0.03	0.05	0.04	0.01	0.03
9/22/2018	51				1.30	0.03	0.02	0.02	0.02	0.02	0.03	0.02	0.03	0.03	0.02	0.02	0.02	0.02
9/23/2018	18				1.73	0.02	0.02	0.04	0.02	0.02	0.04	0.02	0.05	0.02	0.03	0.02	0.01	0.02
9/24/2018	23				1.60	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.01	0.02	0.02	0.01	0.02
9/25/2018	26				1.03	0.02	0.02	0.03	0.02	0.02	0.03	0.01	0.04	0.01	0.04	0.02	0.01	0.02
9/26/2018	57				1.34	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.04	0.02	0.01	0.02	0.01	0.02
9/27/2018	202				1.57	0.02	0.03	0.04	0.03	0.01	0.04	0.03	0.03	0.02	0.05	0.02	0.01	0.03
9/28/2018	240				1.08	0.05	0.04	0.02	0.02	0.02	0.03	0.03	0.04	0.03	0.02	0.03	0.02	0.02
9/29/2018	163				1.14	0.02	0.02	0.03	0.02	0.01	0.04	0.03	0.03	0.02	0.04	0.03	0.01	0.02
9/30/2018	150				1.24	0.02	0.03	0.02	0.02	0.02	0.04	0.02	0.03	0.02	0.01	0.02	0.02	0.02
10/1/2018	67				1.28	0.02	0.02	0.03	0.02	0.02	0.02	0.03	0.03	0.02	0.02	0.02	0.01	0.02
10/2/2018	54				1.29	0.02	0.02	0.02	0.02	0.01	0.03	0.02	0.02	0.01	0.02	0.02	0.01	0.02
10/3/2018	29				1.25	0.02	0.03	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02
10/4/2018	20				1.27	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.03	0.02	0.02	0.02	0.01	0.02
10/5/2018	15				1.41	0.02	0.03	0.03	0.02	0.02	0.04	0.02	0.04	0.02	0.02	0.02	0.01	0.02
10/6/2018	11				1.43	0.02	0.03	0.03	0.02	0.01	0.04	0.02	0.03	0.01	0.02	0.02	0.01	0.02
10/7/2018	11				1.43	0.03	0.03	0.03	0.02	0.02	0.03	0.02	0.03	0.02	0.02	0.02	0.01	0.02
10/8/2018	17				1.61	0.03	0.02	0.03	0.02	0.02	0.04	0.02	0.04	0.02	0.03	0.02	0.01	0.02
10/9/2018	12				1.60	0.02	0.02	0.04	0.02	0.02	0.05	0.02	0.05	0.02	0.03	0.03	0.02	0.03
10/10/2018	8				1.59	0.03	0.03	0.03	0.02	0.02	0.04	0.02	0.04	0.02	0.02	0.03	0.01	0.02
10/11/2018	6				1.60	0.03	0.02	0.02	0.02	0.02	0.03	0.02	0.03	0.02	0.02	0.02	0.01	0.02
10/12/2018	16				1.22	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.03	0.02	0.02	0.02	0.01	0.02
10/13/2018	9				0.94	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.01	0.02	0.02	0.02
10/14/2018	19				0.72	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02
10/15/2018	19				0.52	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
10/16/2018	11				0.51	0.03	0.03	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03
10/17/2018	11				0.55	0.02	0.03	0.03	0.02	0.02	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.02
10/18/2018	8				0.58	0.03	0.03	0.02	0.03	0.02	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.02
10/19/2018	5				0.56	0.03	0.03	0.03	0.03	0.02	0.02	0.03	0.04	0.02	0.02	0.02	0.02	0.03
10/20/2018	5				0.54	0.03	0.04	0.03	0.03	0.03	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.03
10/21/2018	4				0.87	0.03	0.03	0.03	0.03	0.03	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.03
10/22/2018	6				0.64	0.03	0.03	0.03	0.03	0.02	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.02
10/23/2018	4				0.45	0.03	0.03	0.03	0.03	0.02	0.02	0.04	0.03	0.02	0.03	0.02	0.03	0.02
10/24/2018	3				0.40	0.03	0.03	0.02	0.03	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02
10/25/2018	3				0.41	0.02	0.03	0.03	0.02	0.02	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.02
10/26/2018	3				0.32	0.02	0.03	0.02	0.03	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02
10/27/2018	3				0.30	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.02	0.02	0.02
10/28/2018	6				0.38	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.02	0.01	0.02
10/29/2018	4				0.33	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.02	0.01	0.02
10/30/2018	5				0.36	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.02
10/31/2018	3				0.33	0.04	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.01	0.01	0.02	0.01	0.02
11/1/2018	3				0.41	0.02	0.02	0.02	0.02	0.01	0.02	0.03	0.02	0.02	0.01	0.02	0.02	0.02
11/2/2018	3				0.33	0.02	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.02	0.01	0.02	0.01	0.02
11/3/2018	23				0.42	0.02	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.02	0.01	0.02	0.02	0.02
11/4/2018	140				0.47	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02
11/5/2018	140				0.36	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.02	0.02
11/6/2018	47				0.45	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02

11/7/2018	66				0.49	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.01	0.02
11/8/2018	77				0.54	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.03	0.01	0.03	0.02	0.02	0.02
11/9/2018	47				0.58	0.02	0.03	0.02	0.03	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02
11/10/2018	15				0.83	0.03	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.02	0.02	0.02	0.03	0.02
11/11/2018	42				0.66	0.03	0.03	0.02	0.03	0.02	0.02	0.03	0.03	0.02	0.02	0.03	0.02	0.02
11/12/2018	47				0.55	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02
11/13/2018	32				0.54	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.03	0.01	0.04	0.02	0.02	0.02
11/14/2018	32				0.45	0.03	0.03	0.02	0.03	0.02	0.02	0.02	0.03	0.02	0.02	0.03	0.01	0.02
11/15/2018	24				0.44	0.02	0.03	0.03	0.02	0.02	0.03	0.03	0.03	0.01	0.02	0.02	0.02	0.02
11/16/2018	22				0.49	0.03	0.05	0.03	0.02	0.02	0.02	0.02	0.03	0.04	0.02	0.03	0.02	0.03
11/17/2018	21				0.48	0.03	0.04	0.05	0.02	0.02	0.03	0.03	0.05	0.02	0.02	0.03	0.02	0.03
11/18/2018	16				0.42	0.02	0.04	0.03	0.02	0.02	0.02	0.02	0.03	0.03	0.04	0.02	0.02	0.02
11/19/2018	4				0.44	0.04	0.03	0.06	0.03	0.02	0.05	0.06	0.03	0.04	0.04	0.04	0.03	0.03
11/20/2018	11				0.49	0.03	0.08	0.05	0.03	0.03	0.05	0.05	0.09	0.09	0.06	0.04	0.03	0.04
11/21/2018	10				0.44	0.03	0.03	0.02	0.03	0.01	0.03	0.05	0.06	0.02	0.04	0.03	0.03	0.03
11/22/2018	10				0.66	0.03	0.05	0.05	0.08	0.05	0.03	0.04	0.05	0.05	0.03	0.03	0.10	0.03
11/23/2018	10				0.38	0.03	0.03	0.02	0.03	0.01	0.03	0.02	0.04	0.02	0.03	0.03	0.03	0.02
11/24/2018	9				0.38	0.04	0.05	0.06	0.04	0.04	0.03	0.04	0.03	0.04	0.03	0.03	0.01	0.03
11/25/2018	212				0.40	0.02	0.04	0.03	0.04	0.02	0.03	0.04	0.03	0.04	0.03	0.03	0.03	0.02
11/26/2018	206				0.28	0.05	0.03	0.08	0.04	0.04	0.03	0.07	0.04	0.06	0.03	0.03	0.02	0.03
11/27/2018	44				0.67	0.06	0.04	0.07	0.05	0.06	0.04	0.06	0.06	0.07	0.04	0.04	0.05	0.03
11/28/2018	30				0.95	0.09	0.33	0.10	0.09	0.14	0.12	0.09	0.09	0.12	0.11	0.92	0.53	0.12
11/29/2018	30				0.92	0.05	0.07	0.09	0.06	0.05	0.05	0.05	0.04	0.06	0.06	0.06	0.05	0.05
11/30/2018	12				0.42	0.04	0.04	0.03	0.03	0.04	0.04	0.05	0.04	0.04	0.02	0.04	0.03	0.03
12/1/2018																		
12/2/2018																		
12/3/2018																		
12/4/2018																		
12/5/2018																		
12/6/2018																		
12/7/2018																		
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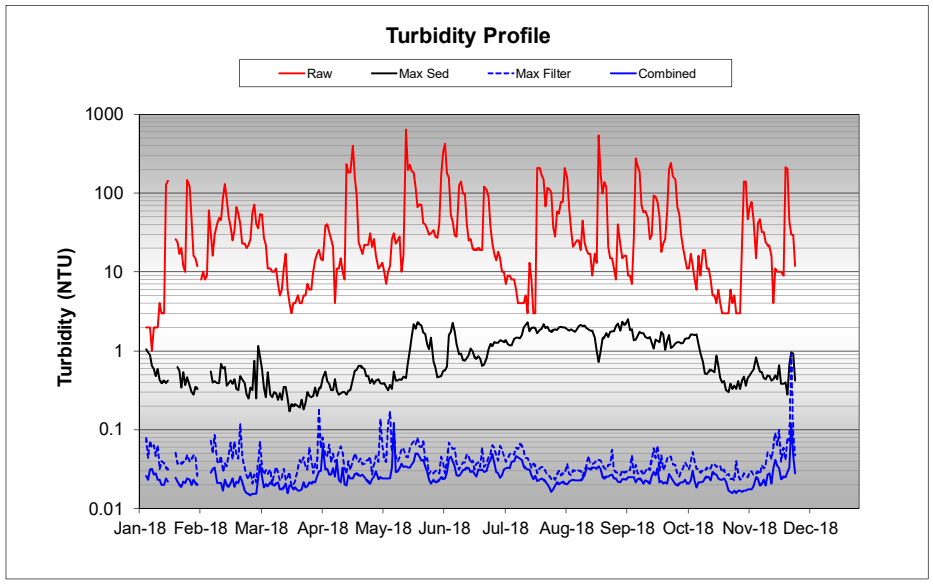
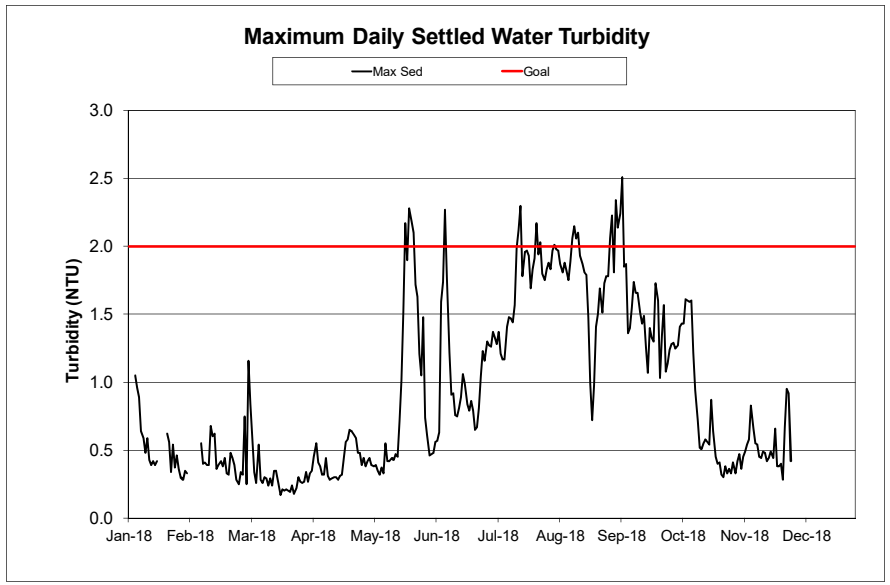




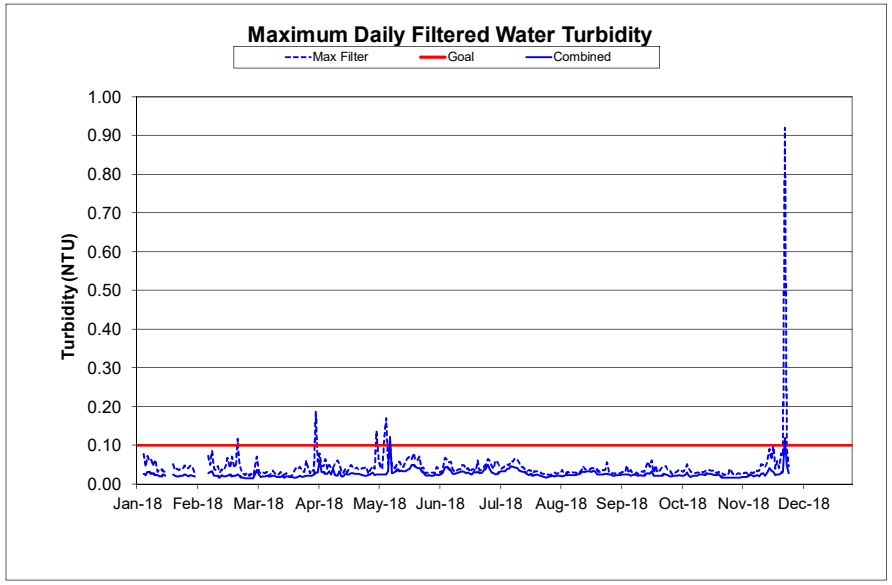
ANNUAL DATA	Avg	Min	Max	RSQ	95%	Opt. Goal	Reg.
	NTU	NTU	NTU		NTU	%Values	%Values
Raw Turbidity	50.5	1.0	640.0	n/a	195.9	n/a	n/a
Max. Settled Turbidity	0.9	0.2	2.5	0.01	2.1	93.8	n/a
Max. Filtered Turbidity	0.04	0.02	0.92	0.00	0.07	97.8	n/a
Combined Filtered Turbidity	0.03	0.01	0.12	0.03	0.04	99.4	100.0

RSQ = Correlation Coefficient for two selected data sets

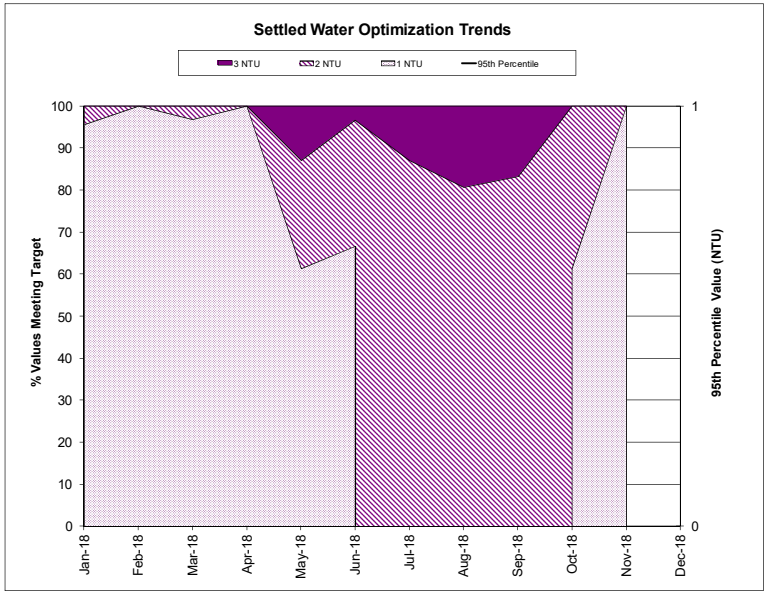
95% = 95th Percentile value for data set

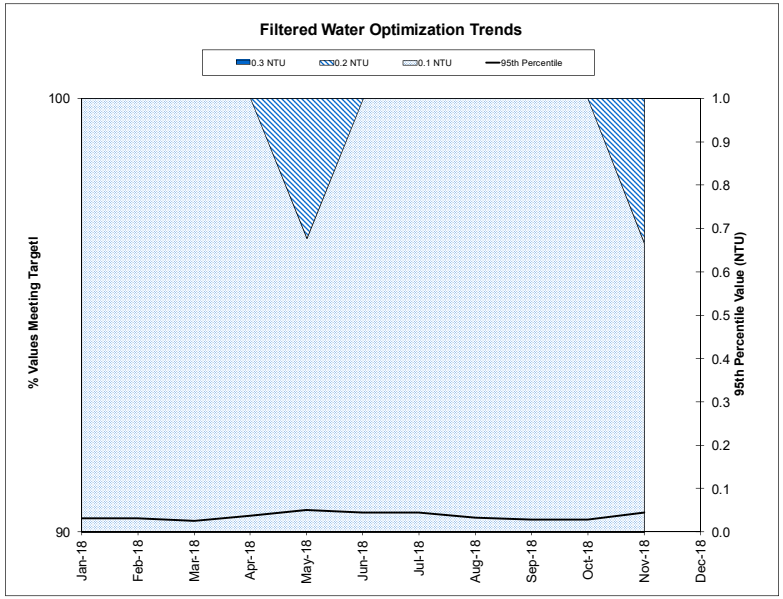
Opt. Goal = % of values in data set that are less than or equal to the selected optimization turbidity goal

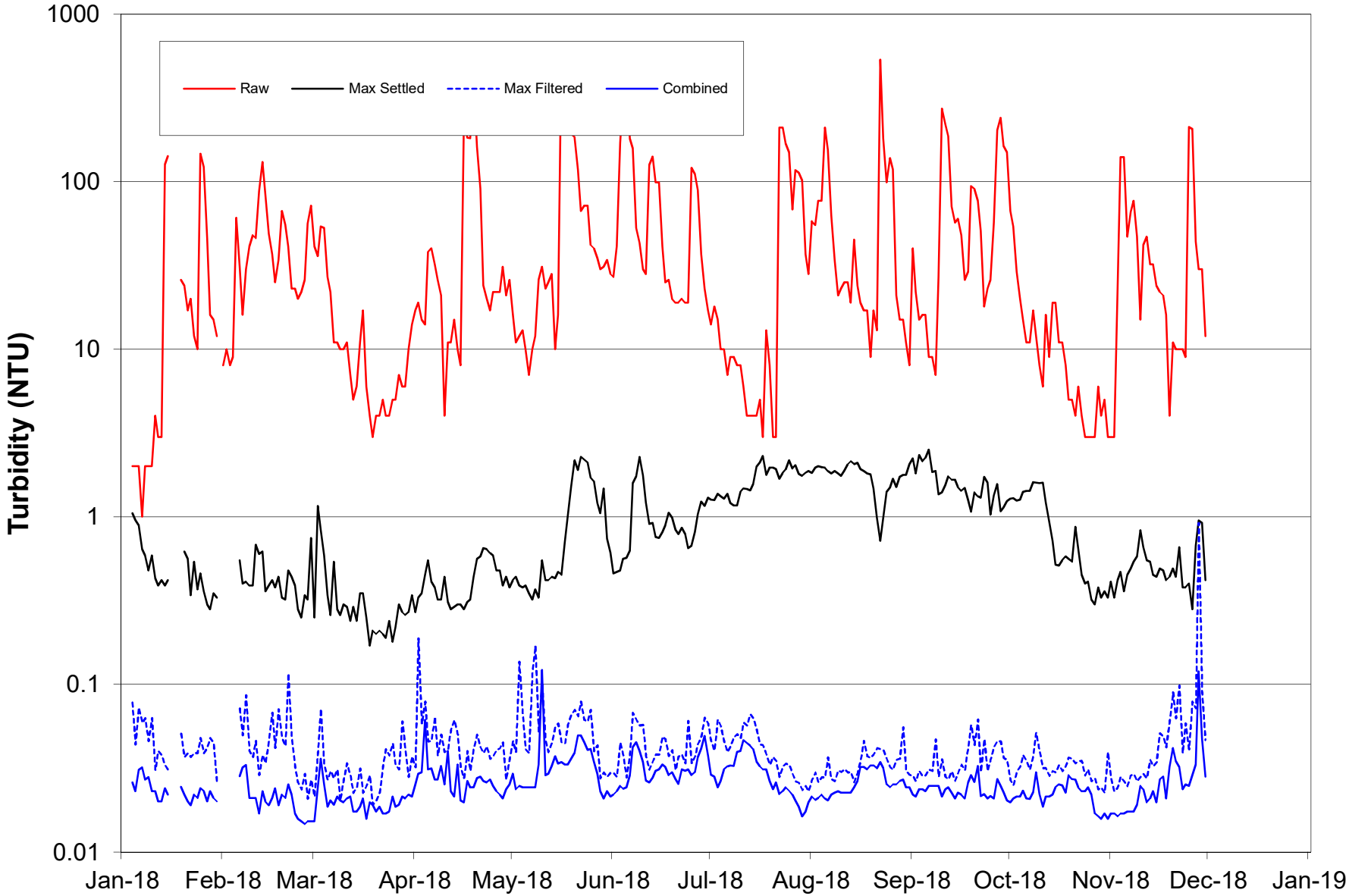
Reg. = % of values in data set that are less than or equal to the regulated turbidity requirement

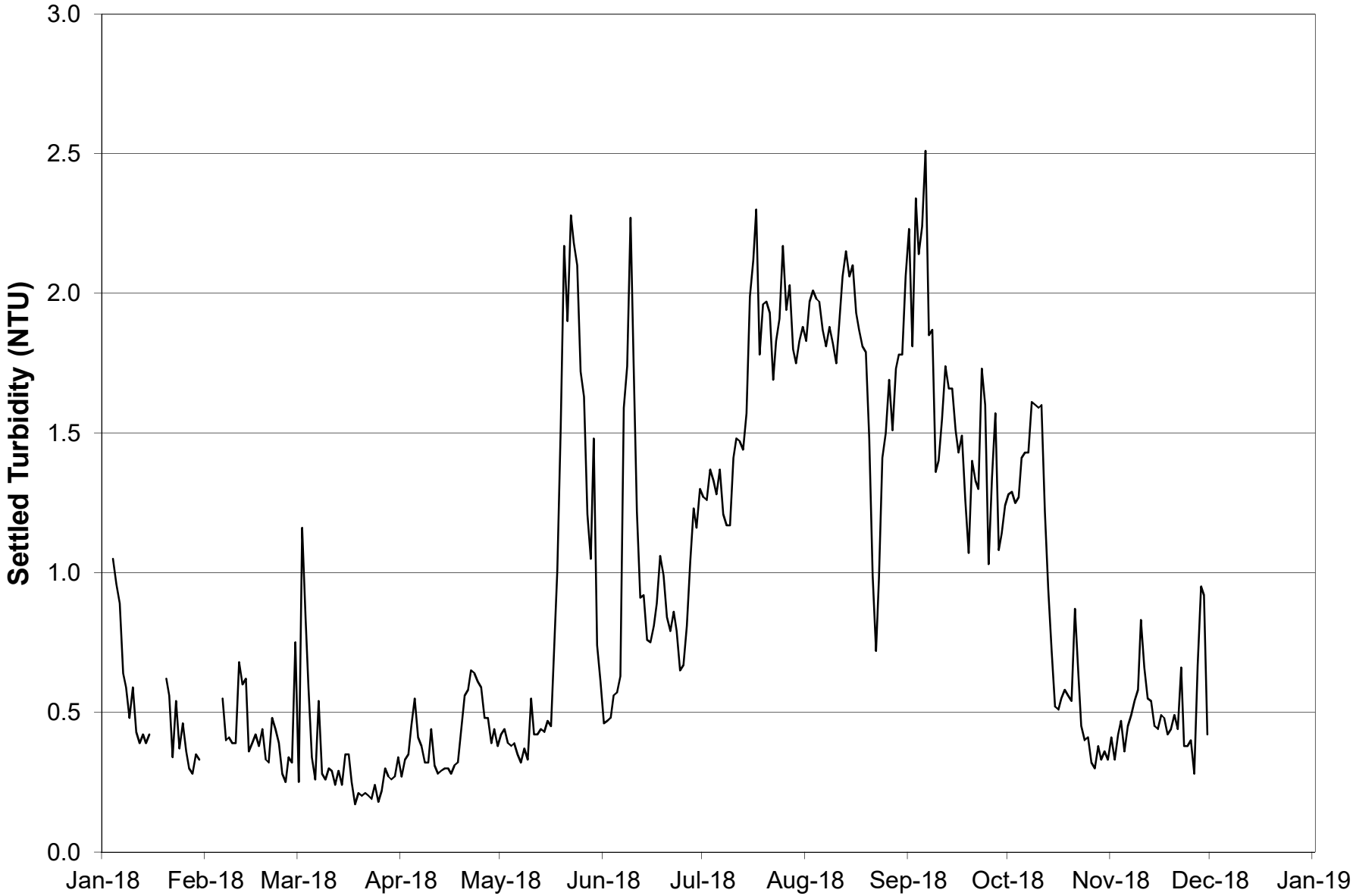


	Settled Water Turbidity							Filtered Water Turbidity															
	95th Percentile Values (NTU)				% Values Meeting Goal			95th Percentile Values (NTU)													% Values Meeting Goal		
	Sed 1	Sed 2	Sed 3	Sed 4	3 NTU	2 NTU	1 NTU	Filter 1	Filter 2	Filter 3	Filter 4	Filter 5	Filter 6	Filter 7	Filter 8	Filter 9	Filter 10	Filter 11	Filter 12	Combined	0.3	0.2	0.1
Jan-18				0.95	100.00	100.00	95.7	0.04	0.04	0.05	0.04	0.04	0.05	0.06	0.05	0.04	0.04	0.04	0.04	0.03	100.00	100.00	100.0
Feb-18				0.67	100.00	100.00	100.0	0.07	0.04	0.02	0.04	0.04	0.05	0.04	0.05	0.03	0.04	0.03	0.04	0.03	100.00	100.00	100.0
Mar-18				0.72	100.00	100.00	96.8	0.04	0.02	0.04	0.03	0.02	0.04	0.03	0.04	0.04	0.04	0.04	0.03	0.02	100.00	100.00	100.0
Apr-18				0.63	100.00	100.00	100.0	0.04	0.04	0.05	0.04	0.04	0.05	0.04	0.05	0.04	0.03	0.03	0.04	0.04	100.00	100.00	100.0
May-18				2.18	100.00	87.10	61.3	0.05	0.06	0.06	0.07	0.06	0.06	0.06	0.06	0.06	0.05	0.09	0.04	0.05	100.00	100.00	96.8
Jun-18				1.76	100.00	96.67	66.7	0.05	0.04	0.06	0.05	0.06	0.05	0.05	0.04	0.05	0.03	0.04	0.04	0.04	100.00	100.00	100.0
Jul-18				2.15	100.00	87.10		0.05	0.04	0.05	0.05	0.06	0.05	0.05	0.06	0.03	0.03	0.04	0.03	0.04	100.00	100.00	100.0
Aug-18				2.08	100.00	80.65	9.7	0.04	0.03	0.04	0.04	0.03	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	100.00	100.00	100.0
Sep-18				2.30	100.00	83.33		0.05	0.04	0.04	0.03	0.03	0.04	0.03	0.05	0.03	0.04	0.03	0.02	0.03	100.00	100.00	100.0
Oct-18				1.60	100.00	100.00	61.3	0.03	0.03	0.03	0.03	0.02	0.04	0.03	0.04	0.02	0.03	0.03	0.02	0.03	100.00	100.00	100.0
Nov-18				0.88	100.00	100.00	100.0	0.06	0.07	0.08	0.07	0.05	0.05	0.06	0.08	0.08	0.06	0.05	0.08	0.04	100.00	100.00	96.7
Dec-18					#N/A	#N/A	#N/A														#N/A	#N/A	#N/A
Yr. 95%				2.06				0.05	0.04	0.06	0.05	0.05	0.05	0.05	0.06	0.05	0.04	0.04	0.04	0.04			
Yr. Goal				93.8%				99.7%	99.4%	100.0%	99.7%	99.7%	99.7%	99.7%	100.0%	99.7%	99.7%	99.1%	99.7%	99.4%			

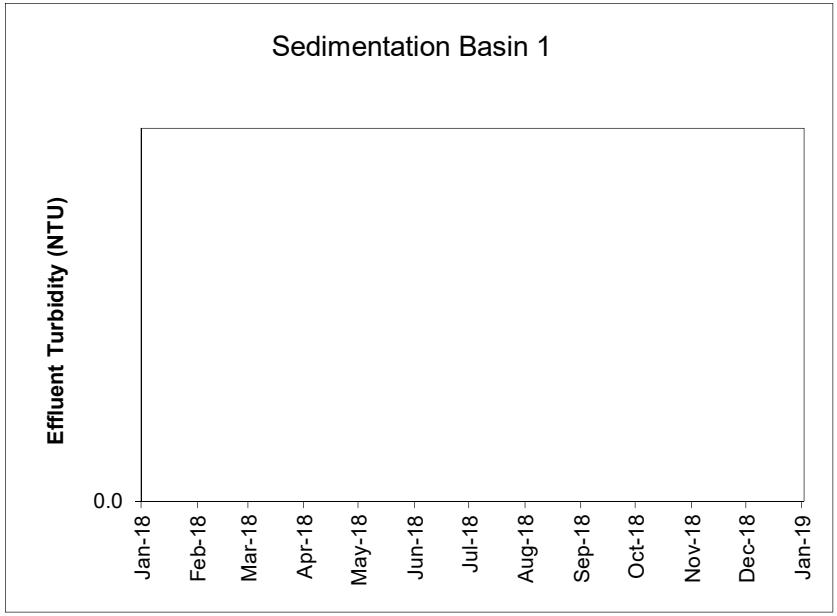


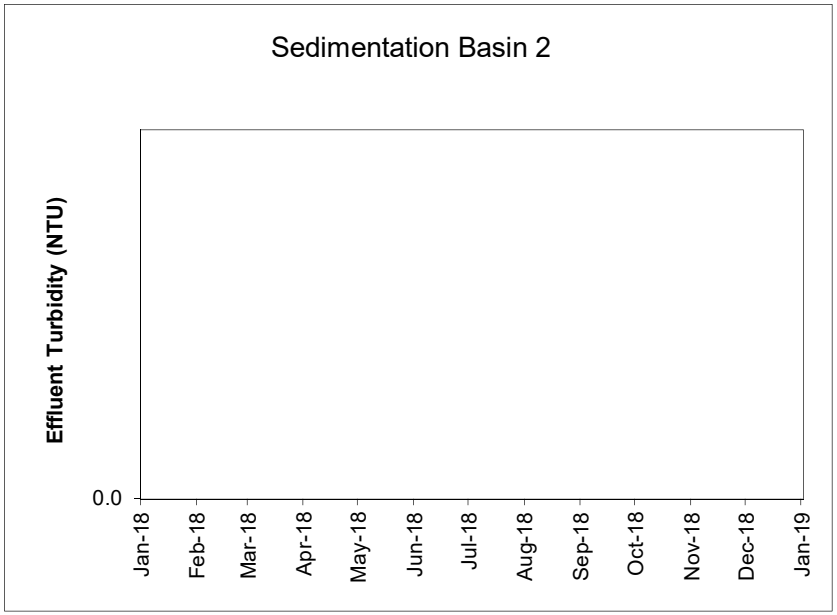


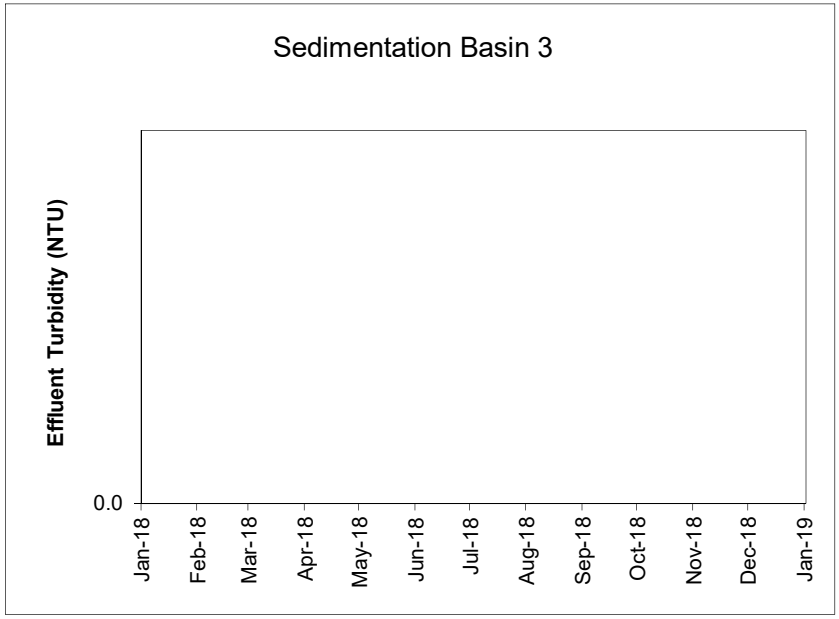

Raw
Max Settled
Max Filtered
Combined
Turbidity (NTU)
1000
100
10
1
0.1
0.01
Jan-18
Feb-18
Mar-18
Apr-18
May-18
Jun-18
Jul-18
Aug-18
Sep-18
Oct-18
Nov-18
Dec-18
Jan-19

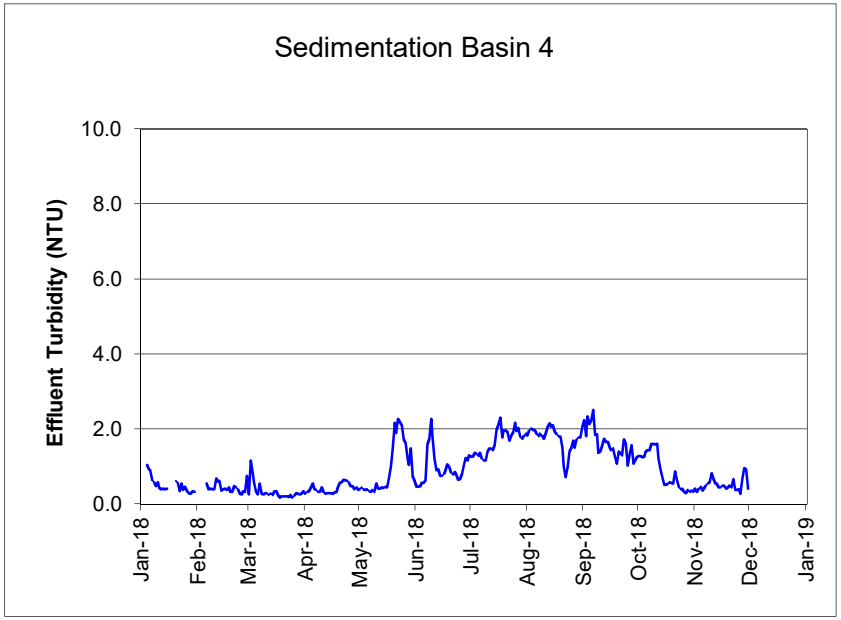

Settled Turbidity (NTU)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
Jan-18
Feb-18
Mar-18
Apr-18
May-18
Jun-18
Jul-18
Aug-18
Sep-18
Oct-18
Nov-18
Dec-18
Jan-19

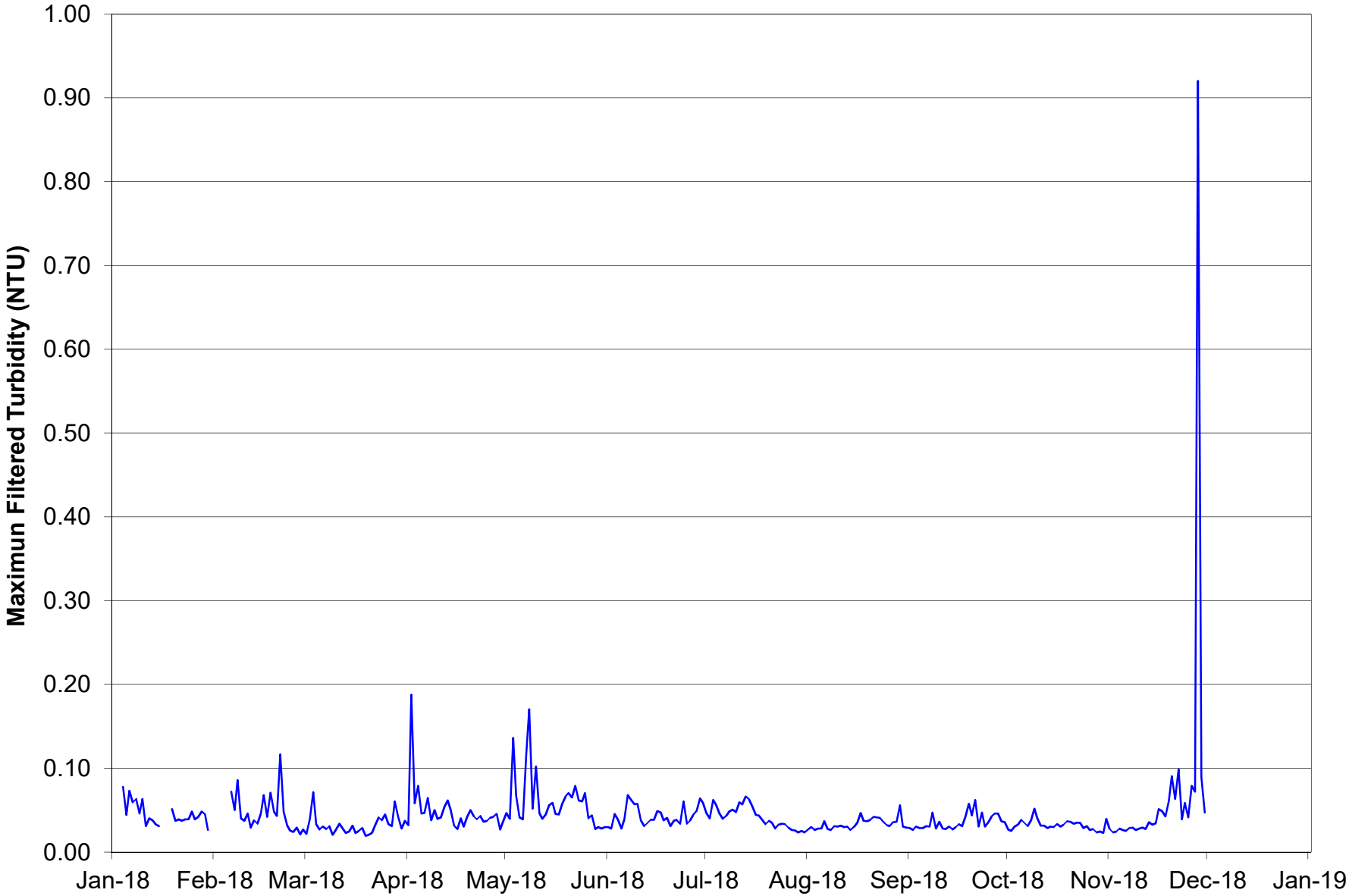
Sedimentation Performance Summary



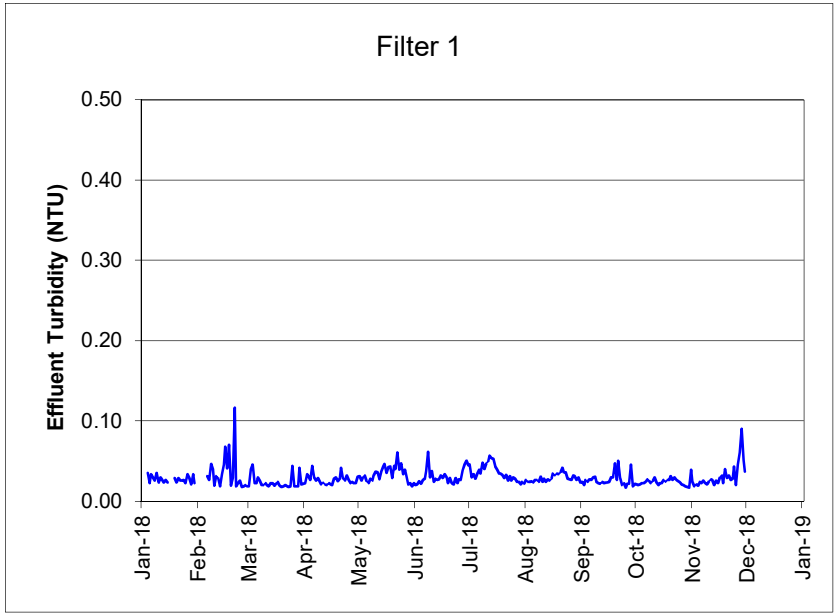


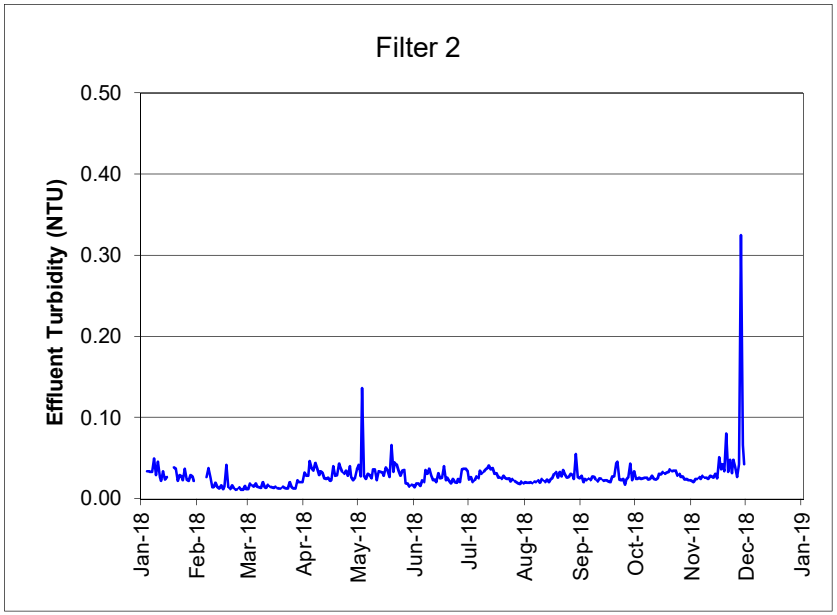


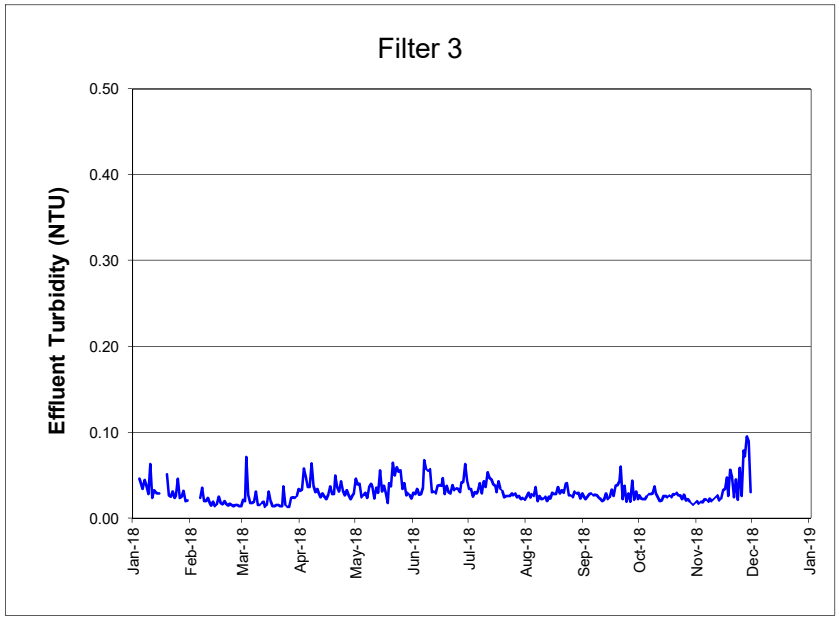


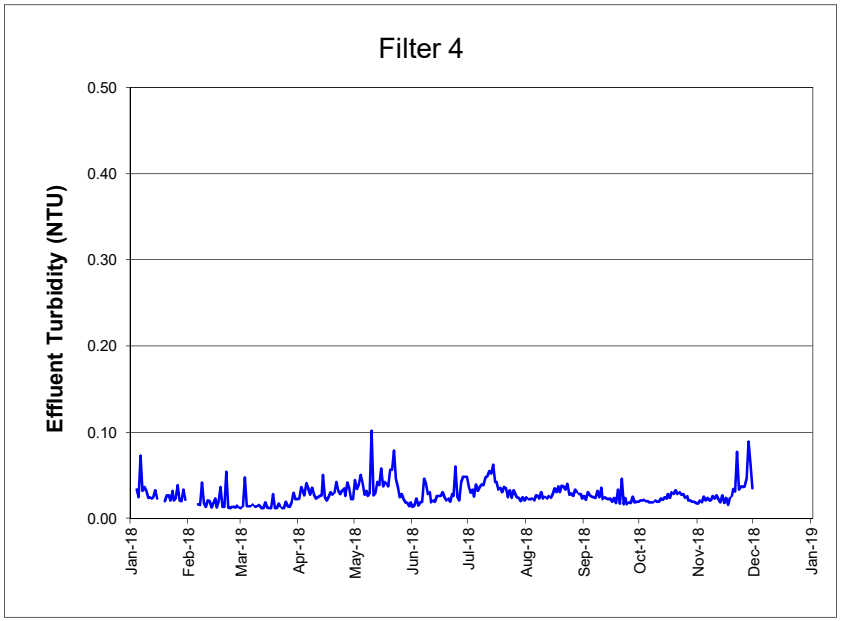

Maximun Filtered Turbidity (NTU)
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
Jan-18
Feb-18
Mar-18
Apr-18
May-18
Jun-18
Jul-18
Aug-18
Sep-18
Oct-18
Nov-18
Dec-18
Jan-19

Filtration Performance Summary (Filters 1 - 4)

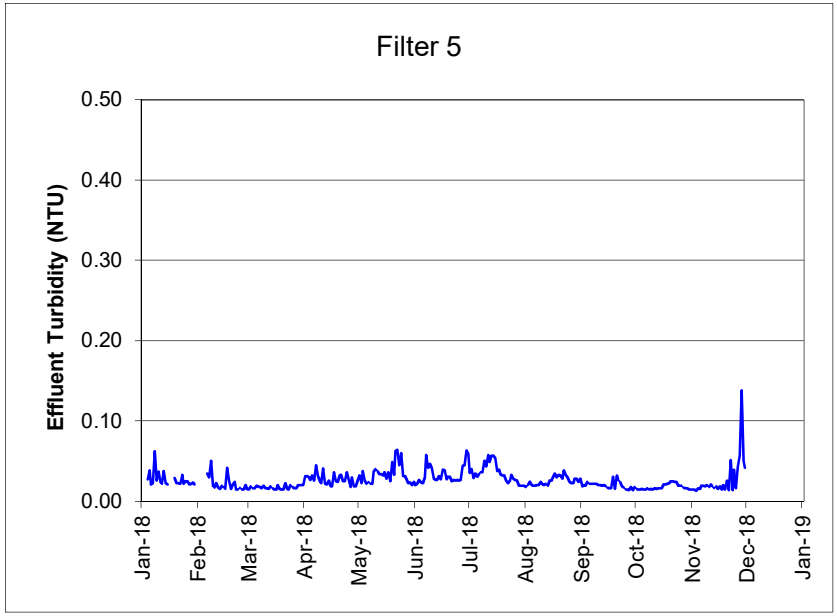


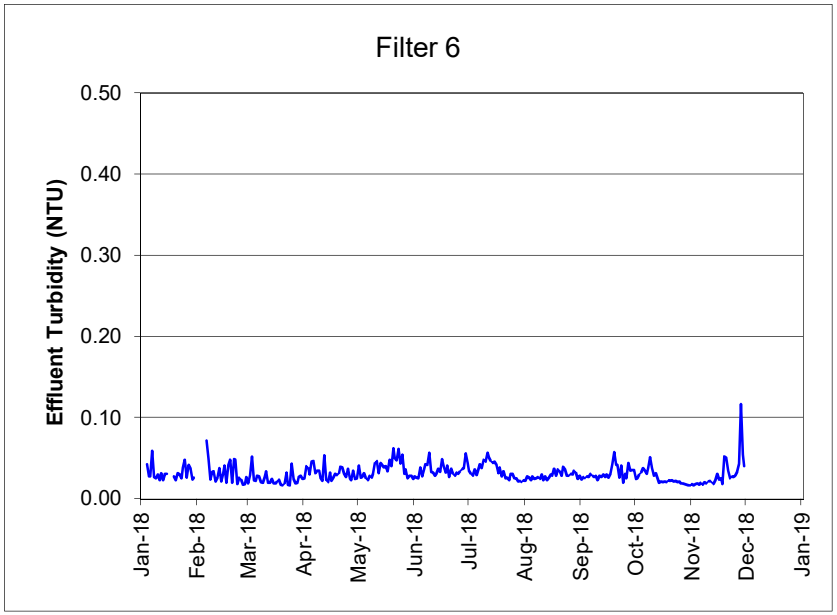


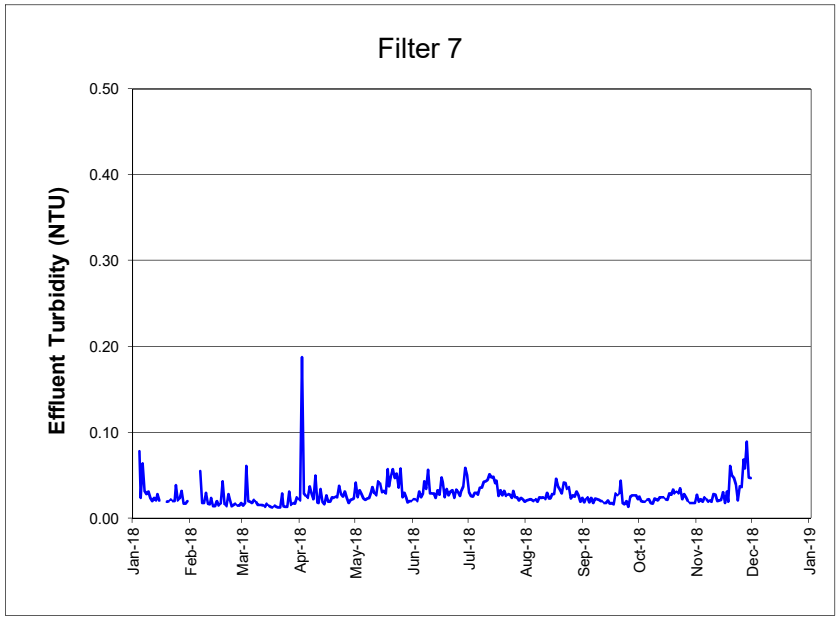


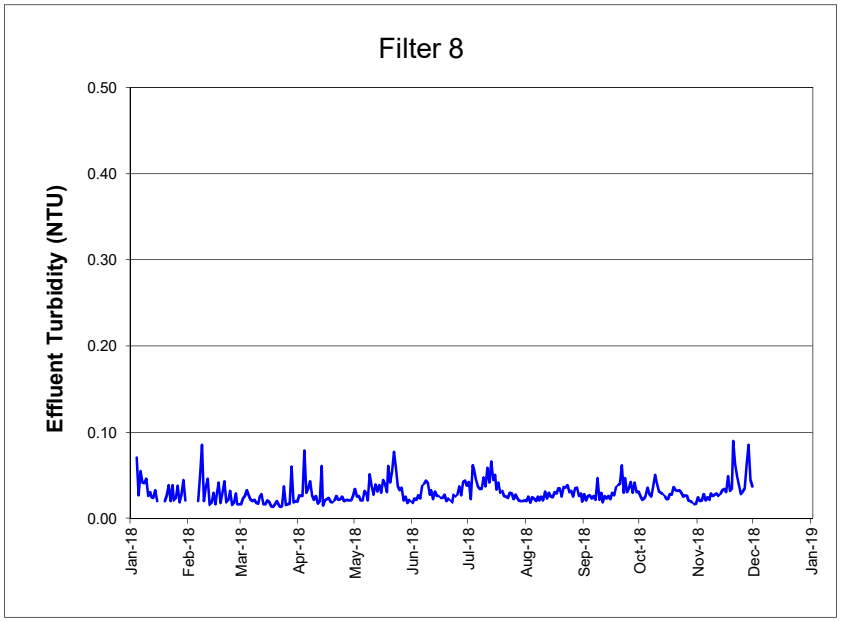


Filtration Performance Summary (Filters 5 - 8)

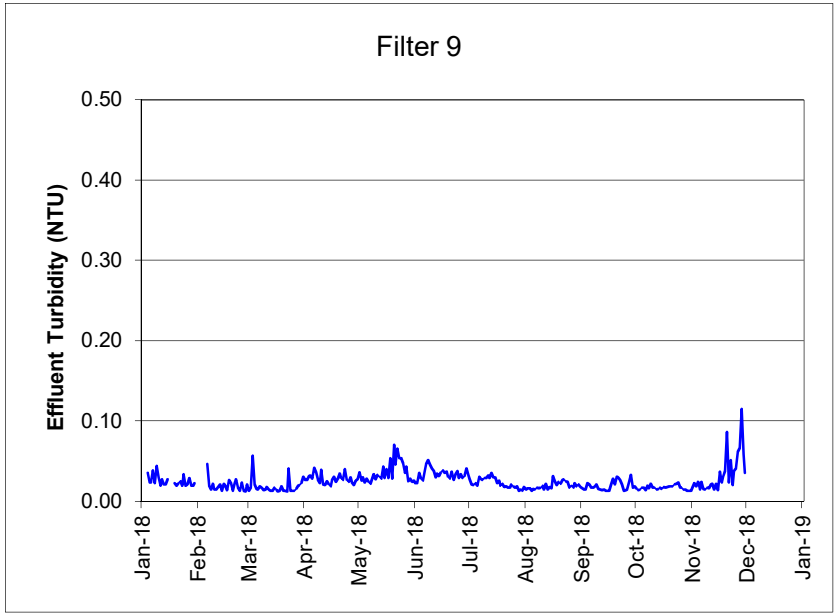


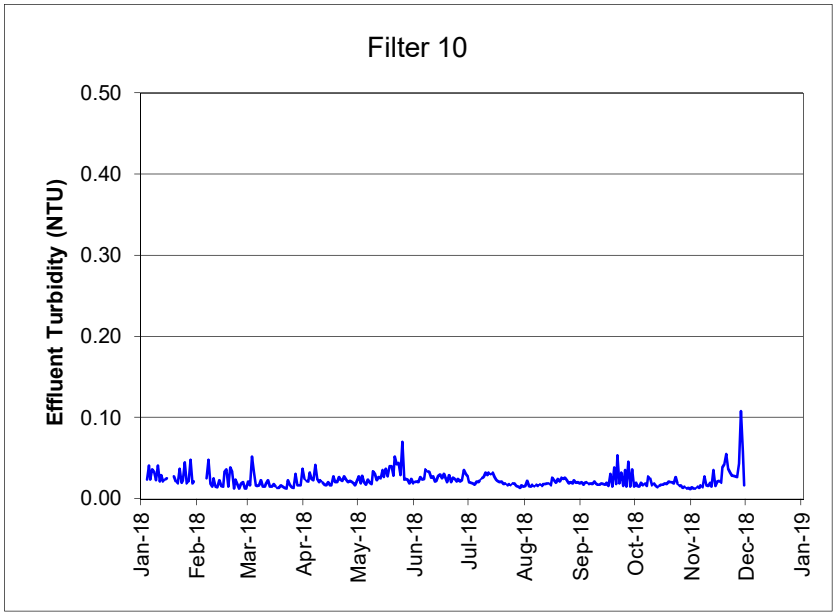


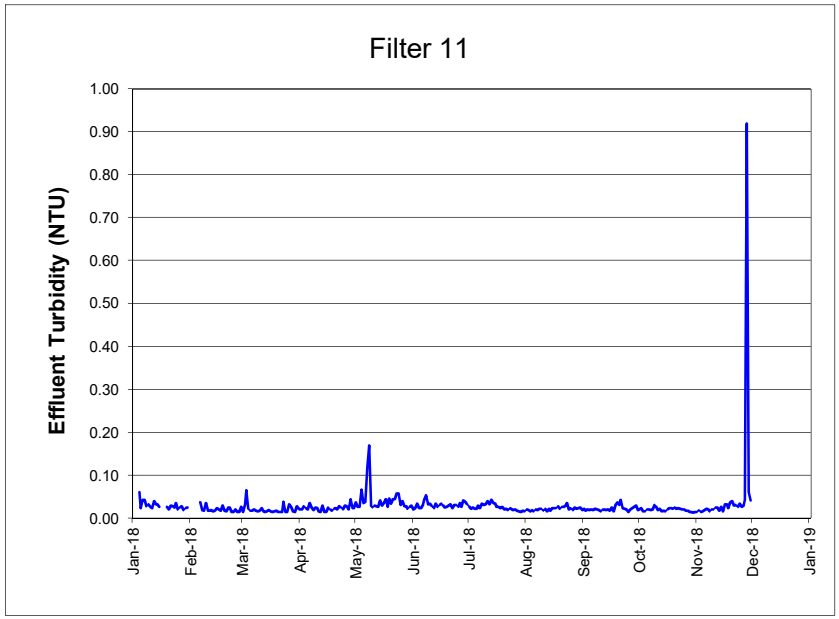


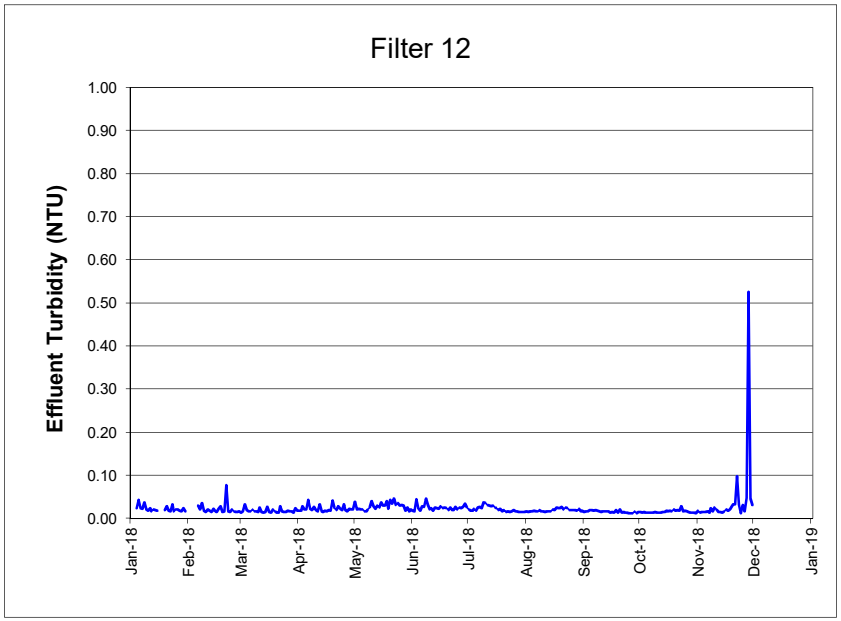


Filtration Performance Summary (Filters 9 - 12)









	Settled Water				Combined Filtered Water			
	95th %	% Values Meeting Goal			95th %	% Values Meeting Goal		
Month/Yr	Sed 1	3 NTU	2 NTU	1 NTU		0.3 NTU	0.2 NTU	0.1 NTU
Jan-18		100.0	100.0	95.7	0.03	100.0	100.0	100.0
Feb-18		100.0	100.0	100.0	0.03	100.0	100.0	100.0
Mar-18		100.0	100.0	96.8	0.02	100.0	100.0	100.0
Apr-18		100.0	100.0	100.0	0.04	100.0	100.0	100.0
May-18		100.0	87.1	61.3	0.05	100.0	100.0	96.8
Jun-18		100.0	96.7	66.7	0.04	100.0	100.0	100.0
Jul-18		100.0	87.1		0.04	100.0	100.0	100.0
Aug-18		100.0	80.6	9.7	0.03	100.0	100.0	100.0
Sep-18		100.0	83.3		0.03	100.0	100.0	100.0
Oct-18		100.0	100.0	61.3	0.03	100.0	100.0	100.0
Nov-18		100.0	100.0	100.0	0.04	100.0	100.0	96.7
Dec-18		#N/A	#N/A	#N/A		#N/A	#N/A	#N/A

The area in blue can be copied to the long-term trend spreadsheet (LT_trend.xls) to develop up to three years of performance trends.