

Chemical Analysis Report

NE-DIST-2017-01-18-01

Florida Department of Environmental Protection
Central Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

Event Description: **Gainesville 2**
Request ID: **RQ-2017-01-16-16**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
8800 Baymeadows Way West
Jacksonville, FL 32256-7577
Attn: Jeremy Parrish

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Certified by: Thekkekalathil Chandrasekhar, Chemist Administrator Date Certified: 14-FEB-2017 11:17



Case Narrative

Unless otherwise noted, all samples included in this report were received in accordance with protocols referenced in Chapter 62-160, Florida Administrative Code (F.A.C.). Results published in this report pertain only to the samples as submitted to, and received by the laboratory. All times in this report are adjusted to the applicable Eastern Time Zone (EST or EDT).

Results for the following analytical groups are included in this report: Metals, Nutrients and Pesticides.

Scientific notation may be used in reporting very large or small values. Values reported using scientific notation will take the form of the following example: 1.3E+03, which is equivalent to 1.3×10^3 or 1300.

Unless otherwise noted, analytical values for soil and sediment samples are reported on a dry weight basis, and analytical values for waste and tissue samples are reported on a wet weight basis.

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited or where accreditation for that field of testing is not applicable.

Any significant anomalies or deviations from established protocols are documented in Non-Conformance Reports, which, where appropriate, are included within this analytical report. Additional comments related to specific analytical tests may be included as remarks following the analytical results for each sample. Such comments and remarks are for informational purposes only and are not intended to convey judgement about the usability of the reported data.

A quality control report on the performance of the test method for the submitted samples is included. Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published quality control acceptance limits for each analytical test. Matrix quality control results (matrix spike recoveries and matrix sample precision) pertain only to the matrix sample tested and do not necessarily reflect test method performance for other samples.

Typical matrix quality control (QC) measurements may include matrix spike recovery, matrix spike duplicate recovery, matrix spike precision and matrix sample precision. Not all matrix QC results may be available or reportable; where they are not an explanation is provided. Typical reasons for unavailable QC results include, but are not limited to, a) insufficient matrix sample to perform some or all QC measurements; b) analyte concentration in the sample replicated was too low for a meaningful measurement of precision and c) analyte concentration in the matrix sample spiked was too high (relative to the amount of analyte spiked) for a meaningful measurement of recovery. Where matrix QC results are unavailable, other method performance metrics (e.g., LCS recovery, LCS precision, surrogate recovery) may be used to assess performance of the method. Comments explaining any missing QC measurements are not intended to convey any adverse conclusions about the quality of the reported data.

Precision is reported as relative percent difference unless otherwise noted.

Quality Control codes as defined below may be used in this report to indicate results that are associated with one or more quality control elements which did not fall within established test method criteria. Such results may be qualified as estimates using a J qualifier as required by 62-160 F.A.C. Explanations are included in the report for any results that were reported as estimates for other reasons.

QC Codes used in this report may include:

- LCS – Recovery for the batch Laboratory Control Sample (LCS) was outside existing control limits;
- MS – Recovery for the batch matrix spike (MS) was outside existing control limits;
- CCV – Recovery for a continuing calibration verification (CCV) standard was outside existing control limits;
- SUR – Recovery of a surrogate (SUR) for associated analytes was outside existing control limits;
- RPD – The precision, measured as relative percent difference (RPD), of batch replicate measurements was outside existing control limits;
- RSD – The precision, measured as relative standard deviation (RSD), of batch replicate measurements was outside existing control limits;
- SMP – Sample - used precision derived from replicate analyses of a sample;

The following data qualifiers are used, where applicable, in this report as specified in 62-160 F.A.C.

- A - Value reported is the mean of two or more determinations.
- B - Results based on colony counts outside the acceptable range.
- I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J - Estimated value and/or the analysis did not meet established quality control criteria.
- K - Actual value is known to be less than value given.
- L - Actual value is known to be greater than value given.
- N - Presumptive evidence of presence of material.
- O - Sampled, but analysis lost or not performed.
- Q - Sample held beyond normal holding time.
- T - Value reported is less than the criterion of detection.
- U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
- V - Analyte was detected in both sample and method blank.
- X - Too few individuals to calculate SCI value.
- Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
- Z - Colonies were too numerous to count (TNTC).

Quality control information from overflow laboratories may not be included in this report. Please refer to the associated report from the overflow laboratory for additional information.

Sample Location: LAKE FOREST CRK @ UNIVERSITY AVE

Collection Date/Time: 01/17/2017 10:00

Field ID: G1NE0098 01172017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1864627	EPA 180.1 Rev. 2.0	Turbidity	0.70		NTU	P318380	
	EPA 300.0 Rev. 2.1	Chloride	18	A	mg Cl/L	P318785	
		Sulfate	22	A	mg SO4/L	P318788	
	SM 2120 B	Color (true)	90	A	PCU	P318374	
	SM 2320 B-97	Total Alkalinity	58	A	mg CaCO3/L	P318491	
	SM 2540 C-97	TDS	147		mg/L	P318679	
	SM 2540 D-97	TSS	3	I	mg/L	P318683	
	SM 4500 F-C-97	Fluoride	0.17		mg F/L	P318495	
1864629	EPA 350.1 Rev. 2.0	Ammonia-N	0.016		mg N/L	P318473	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.44		mg N/L	P318460	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.052		mg N/L	P318608	
	EPA 365.1 Rev. 2.0	Total-P	0.070		mg P/L	P318493	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P318522	
1864631	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.063		mg P/L	P318370	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 350.1 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: LAKE FOREST CRK @ UNIVERSITY AVE

Collection Date/Time: 01/17/2017 10:00

Field ID: G1NE0098 01172017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1864648	EPA 8321B	Sucralose**	0.074		ug/L	P318364	
	USGS O-2060-01	Diuron	0.0040	U	ug/L	P318575	
		Fenuron	0.0080	U	ug/L	P318575	RPD
		Imidacloprid	0.0040	U	ug/L	P318575	
		Linuron	0.0040	U	ug/L	P318575	RPD
		Acetaminophen**	0.0040	U	ug/L	P318575	
		Carbamazepine**	4.0E-04	U	ug/L	P318575	
		Primidone**	0.0080	U	ug/L	P318575	
		Fluridone**	4.0E-04	U	ug/L	P318575	

Sample Location: HATCHETT CRK @ SR 26

Collection Date/Time: 01/17/2017 10:25

Field ID: G1NE0096 01172017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1864633	EPA 180.1 Rev. 2.0	Turbidity	1.6		NTU	P318380	
	EPA 300.0 Rev. 2.1	Chloride	12		mg Cl/L	P318785	
		Sulfate	1.3		mg SO4/L	P318788	
	SM 2120 B	Color (true)	160		PCU	P318374	
	SM 2320 B-97	Total Alkalinity	70		mg CaCO3/L	P318491	
	SM 2540 C-97	TDS	119	A	mg/L	P318679	
	SM 2540 D-97	TSS	4	I	mg/L	P318683	
	SM 4500 F-C-97	Fluoride	0.17		mg F/L	P318495	

Field ID: G1NE0096 01172017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1864634	EPA 350.1 Rev. 2.0	Ammonia-N	0.005		mg N/L	P318740	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.46		mg N/L	P318460	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P318608	
	EPA 365.1 Rev. 2.0	Total-P	0.069		mg P/L	P318493	
	SM 5310 B-00	Organic Carbon	16		mg C/L	P318522	
1864635	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.050		mg P/L	P318370	
1864647	EPA 200.7 Rev. 4.4	Calcium	18.1		mg/L	P318431	
		Iron	410		ug/L	P318431	
		Magnesium	9.21		mg/L	P318431	
		Potassium	0.43	I	mg/L	P318431	
		Sodium	6.4		mg/L	P318431	
		Zinc	5.0	U	ug/L	P318431	
	EPA 200.8 Rev. 5.4	Arsenic	0.75		ug/L	P318431	
		Cadmium	0.020	U	ug/L	P318431	
		Chromium	0.43	I	ug/L	P318431	
		Copper	0.20	U	ug/L	P318431	
		Lead	0.14	I	ug/L	P318431	
		Nickel	0.31	I	ug/L	P318431	
		Silver	0.010	U	ug/L	P318431	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: HATCHETT CRK @ SR 26

Collection Date/Time: 01/17/2017 10:25

Field ID: G1NE0096 01172017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1864649	EPA 8321B	Sucralose**	0.010	U	ug/L	P318364	
	USGS O-2060-01	Diuron	0.0040	U	ug/L	P318575	
		Fenuron	0.0080	U	ug/L	P318575	RPD
		Imidacloprid	0.0040	U	ug/L	P318575	
		Linuron	0.0040	U	ug/L	P318575	RPD
		Acetaminophen**	0.0040	U	ug/L	P318575	
		Carbamazepine**	4.0E-04	U	ug/L	P318575	
		Primidone**	0.0080	U	ug/L	P318575	
		Fluridone**	4.0E-04	U	ug/L	P318575	

Sample Location: ALACHUA SINK-LACHUA TRAIL AT GAUGE

Collection Date/Time: 01/17/2017 11:10

Field ID: G1NE0207 01172017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1864628	EPA 180.1 Rev. 2.0	Turbidity	18		NTU	P318380	
	EPA 300.0 Rev. 2.1	Chloride	93		mg Cl/L	P318785	
		Sulfate	56		mg SO4/L	P318788	
	SM 2120 B	Color (true)	120		PCU	P318374	
	SM 2320 B-97	Total Alkalinity	98		mg CaCO3/L	P318491	

Field ID: G1NE0207 01172017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1864628	SM 2540 C-97	TDS	363		mg/L	P318679	
	SM 2540 D-97	TSS	14		mg/L	P318683	
	SM 4500 F-C-97	Fluoride	0.32		mg F/L	P318495	
1864630	EPA 350.1 Rev. 2.0	Ammonia-N	0.21		mg N/L	P318740	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.0		mg N/L	P318460	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.64		mg N/L	P318608	
	EPA 365.1 Rev. 2.0	Total-P	0.50		mg P/L	P318493	
	SM 5310 B-00	Organic Carbon	21		mg C/L	P318522	
1864632	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.33		mg P/L	P318370	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: ALACHUA SINK-LACHUA TRAIL AT GAUGE **Collection Date/Time: 01/17/2017 11:10**

Field ID: G1NE0207 01172017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1864650	EPA 8321B	Sucralose**	11		ug/L	P318364	
	USGS O-2060-01	Diuron	0.0040	U	ug/L	P318575	
		Fenuron	0.0080	U	ug/L	P318575	RPD
		Imidacloprid	0.0040	U	ug/L	P318575	
		Linuron	0.0040	U	ug/L	P318575	RPD
		Acetaminophen**	0.0040	U	ug/L	P318575	
		Carbamazepine**	0.022		ug/L	P318575	
		Primidone**	0.035		ug/L	P318575	
		Fluridone**	7.7E-04	I	ug/L	P318575	

Sample Location: SWEETWATER CREEK ABOVE WETLAND **Collection Date/Time: 01/17/2017 12:00**

Field ID: G1NE0001 01172017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1864651	EPA 8321B	Sucralose**	29		ug/L	P318364	
	USGS O-2060-01	Diuron	0.023		ug/L	P318575	
		Fenuron	0.0080	U	ug/L	P318575	RPD
		Imidacloprid	0.078		ug/L	P318575	
		Linuron	0.0040	U	ug/L	P318575	RPD
		Acetaminophen**	0.0040	U	ug/L	P318575	
		Carbamazepine**	0.056		ug/L	P318575	
		Primidone**	0.059		ug/L	P318575	
		Fluridone**	5.5E-04	I	ug/L	P318575	

Quality Assurance Report

Method Blank Results

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P318380

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P318431

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P318431

Component	Result	Code	Units
Arsenic	0.050	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.20	U	ug/L
Lead	0.050	U	ug/L
Nickel	0.20	U	ug/L
Silver	0.010	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P318785

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P318788

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P318473

Component	Result	Code	Units
Ammonia-N	0.002	U	mg N/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P318740

Component	Result	Code	Units
Ammonia-N	0.002	U	mg N/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P318460

Component	Result	Code	Units
Kjeldahl Nitrogen	0.080	U	mg N/L

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P318608

Component	Result	Code	Units
NO ₂ NO ₃ -N	0.004	U	mg N/L

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P318493

Component	Result	Code	Units
Total-P	0.002	U	mg P/L

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P318370

Component	Result	Code	Units
O-Phosphate-P	0.004	U	mg P/L

Reference Method: EPA 8321B
Batch ID: P318364

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P318374

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P318491

Component	Result	Code	Units
Total Alkalinity	0.65	U	mg CaCO ₃ /L

Reference Method: SM 2540 C-97
Batch ID: P318679

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P318683

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report Method Blank Results

Reference Method: SM 4500 F-C-97
Batch ID: P318495

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P318522

Component	Result	Code	Units
Organic Carbon	0.50	U	mg C/L

Reference Method: USGS O-2060-01
Batch ID: P318575

Component	Result	Code	Units
Acetaminophen	0.0040	U	ug/L
Carbamazepine	4.0E-04	U	ug/L
Diuron	0.0040	U	ug/L
Fenuron	0.0080	U	ug/L
Fluridone	4.0E-04	U	ug/L
Imidacloprid	0.0040	U	ug/L
Linuron	0.0040	U	ug/L
Primidone	0.0080	U	ug/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P318431

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	104		P	85 - 115
Iron	108		P	85 - 115
Magnesium	102		P	85 - 115
Potassium	104		P	85 - 115
Sodium	105		P	85 - 115
Zinc	105		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P318431

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	100		P	85 - 115
Cadmium	99.7		P	85 - 115
Chromium	96.1		P	85 - 115
Copper	98.0		P	85 - 115
Lead	98.7		P	85 - 115
Nickel	99.3		P	85 - 115
Silver	92.3		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P318785

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P318785

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P318788

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	96.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P318473

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	96.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P318740

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	102		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P318460

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	103		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P318608

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO ₂ NO ₃ -N	103		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P318493

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	98.9		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P318370

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	103		P	90 - 110

Reference Method: EPA 8321B
Batch ID: P318364

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	108		P	40 - 140

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-97
Batch ID: P318491

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	104		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P318495

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.8		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P318522

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.0		P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P318575

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetaminophen	92.0		P	40 - 140
Carbamazepine	105		P	40 - 140
Diuron	67.6		P	40 - 140
Fenuron	75.6		P	40 - 140
Fluridone	90.8		P	40 - 140
Imidacloprid	100		P	40 - 160
Linuron	90.0		P	40 - 140
Primidone	80.4		P	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P318431

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1864322	Calcium	100		P	80 - 120
1864322	Iron	106		P	80 - 120
1864322	Magnesium	102		P	80 - 120
1864322	Potassium	99.4		P	80 - 120
1864322	Sodium	106		P	80 - 120
1864322	Zinc	102		P	80 - 120
1864722	Calcium	100		P	80 - 120
1864722	Iron	103	105	P/P	80 - 120
1864722	Magnesium	102		P	80 - 120
1864722	Potassium	99.3	99.6	P/P	80 - 120
1864722	Sodium	101	98.7	P/P	80 - 120
1864722	Zinc	100	100	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P318431

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P318431

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1864322	Arsenic	99.7		P	80 - 120
1864322	Cadmium	102		P	80 - 120
1864322	Chromium	98.3		P	80 - 120
1864322	Copper	93.7		P	80 - 120
1864322	Lead	99.4		P	80 - 120
1864322	Nickel	96.0		P	80 - 120
1864322	Silver	91.3		P	80 - 120
1864722	Arsenic	99.8	101	P/P	80 - 120
1864722	Cadmium	104	103	P/P	80 - 120
1864722	Chromium	98.2	99.1	P/P	80 - 120
1864722	Copper	95.5	97.0	P/P	80 - 120
1864722	Lead	100	101	P/P	80 - 120
1864722	Nickel	97.3	98.2	P/P	80 - 120
1864722	Silver	93.3	89.9	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P318785

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1864627	Chloride	99.2		P	90 - 110
1864883	Chloride	98.5		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P318788

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1864627	Sulfate	93.8		P	90 - 110
1864883	Sulfate	94.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P318740

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1864984	Ammonia-N	99.9	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P318460

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1864579	Kjeldahl Nitrogen	96.7	96.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P318608

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1864634	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P318370

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1864520	O-Phosphate-P	102	101	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P318364

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1864372	Sucralose	104	103	P/P	40 - 140

Reference Method: SM 4500 F-C-97
Batch ID: P318495

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1864627	Fluoride	98.4	99.8	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P318522

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1864629	Organic Carbon	93.5	91.2	P/P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P318575

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1864370	Acetaminophen	107	101	P/P	40 - 140
1864370	Carbamazepine	105	120	P/P	40 - 140
1864370	Diuron	71.2	89.6	P/P	40 - 140
1864370	Fenuron	66.8	96.4	P/P	40 - 140
1864370	Fluridone	78.6	89.0	P/P	40 - 140
1864370	Imidacloprid	116	124	P/P	40 - 160
1864370	Linuron	54.8	107	P/P	40 - 140
1864370	Primidone	85.2	86.4	P/P	40 - 140

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P318380

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864578	Turbidity	0.984	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P318431

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864722	Calcium	1.37	Spike	P	0 - 20
1864722	Iron	2.11	Spike	P	0 - 20
1864722	Magnesium	1.48	Spike	P	0 - 20
1864722	Potassium	0.273	Spike	P	0 - 20
1864722	Sodium	1.26	Spike	P	0 - 20
1864722	Zinc	0.188	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P318431

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864722	Arsenic	0.976	Spike	P	0 - 20
1864722	Cadmium	1.06	Spike	P	0 - 20
1864722	Chromium	0.853	Spike	P	0 - 20
1864722	Copper	1.47	Spike	P	0 - 20
1864722	Lead	0.864	Spike	P	0 - 20
1864722	Nickel	0.861	Spike	P	0 - 20
1864722	Silver	3.72	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P318785

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864627	Chloride	0.0234	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P318788

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864627	Sulfate	0.124	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P318473

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864568	Ammonia-N	1.57	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P318740

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864984	Ammonia-N	1.79	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P318460

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864579	Kjeldahl Nitrogen	0.415	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P318608

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864634	NO2NO3-N	0.489	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P318493

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864580	Total-P	2.76	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P318370

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864520	O-Phosphate-P	0.689	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P318364

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864372	Sucralose	0.948	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P318374

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864627	Color (true)	1.03	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P318491

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864627	Total Alkalinity	0.382	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P318679

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864633	TDS	8.40	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P318495

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864627	Fluoride	0.966	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P318522

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864629	Organic Carbon	1.49	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: USGS O-2060-01
Batch ID: P318575

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864370	Acetaminophen	5.76	Spike	P	0 - 30
1864370	Carbamazepine	13.9	Spike	P	0 - 30
1864370	Diuron	22.9	Spike	P	0 - 30
1864370	Fenuron	36.3	Spike	F	0 - 30
1864370	Fluridone	11.9	Spike	P	0 - 30
1864370	Imidacloprid	7.33	Spike	P	0 - 30
1864370	Linuron	64.4	Spike	F	0 - 30
1864370	Primidone	1.40	Spike	P	0 - 30

* Sample, spike and/or laboratory control sample precision (LCS) is reported.
Replicate spike precision may be reported when sample results are below quantifiable levels.

Quality Assurance Report Surrogates

Lab Sample ID: 1864648
Field Sample ID: G1NE0098 01172017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	65.0	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	105	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	104	P	40 - 160
USGS O-2060-01	Diuron-d6	85.2	P	40 - 150
USGS O-2060-01	Primidone-d5	116	P	40 - 150

Lab Sample ID: 1864649
Field Sample ID: G1NE0096 01172017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	70.5	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	72.2	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	92.2	P	40 - 160
USGS O-2060-01	Diuron-d6	91.8	P	40 - 150
USGS O-2060-01	Primidone-d5	90.4	P	40 - 150

Lab Sample ID: 1864650
Field Sample ID: G1NE0207 01172017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	70.0	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	84.0	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	75.0	P	40 - 160
USGS O-2060-01	Diuron-d6	57.6	P	40 - 150
USGS O-2060-01	Primidone-d5	111	P	40 - 150

Lab Sample ID: 1864651
Field Sample ID: G1NE0001 01172017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	105	P	40 - 150

Quality Assurance Report Surrogates

Lab Sample ID: 1864651
Field Sample ID: G1NE0001 01172017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
USGS O-2060-01	Acetaminophen-d4	110	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	96.4	P	40 - 160
USGS O-2060-01	Diuron-d6	69.2	P	40 - 150
USGS O-2060-01	Primidone-d5	129	P	40 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A73981
Included Lab Sample IDs: 1864631, 1864632, 1864635

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	101	101	P/P	90 - 110
O-Phosphate-P	102	101	P/P	90 - 110

Reference Method: SM 2120 B
Run ID: A73982
Included Lab Sample IDs: 1864627, 1864628, 1864633

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	103	102	P/P	85 - 115
Color (true)	104	103	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A73984
Included Lab Sample IDs: 1864627, 1864628, 1864633

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	100	P/P	95 - 105

Reference Method: EPA 8321B
Run ID: A74006
Included Lab Sample IDs: 1864648, 1864649, 1864650, 1864651

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	71.5	119	P/P	60 - 150

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A74012
Included Lab Sample IDs: 1864629

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.6	96.1	P/P	90 - 110

Reference Method: SM 2320 B-97
Run ID: A74022
Included Lab Sample IDs: 1864627, 1864628, 1864633

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	104	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-97

Run ID: A74022

Included Lab Sample IDs: 1864627, 1864628, 1864633

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	104	102	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A74022

Included Lab Sample IDs: 1864627, 1864628, 1864633

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	100	P/P	90 - 110
Fluoride	100	100	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A74033

Included Lab Sample IDs: 1864629, 1864630, 1864634

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	101	98.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A74045

Included Lab Sample IDs: 1864629, 1864630, 1864634

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	103	101	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A74058

Included Lab Sample IDs: 1864647

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	98.6	99.2	P/P	90 - 110
Iron	99.3	99.4	P/P	90 - 110
Magnesium	99.7	99.5	P/P	90 - 110
Potassium	99.7	99.5	P/P	90 - 110
Sodium	98.6	99.2	P/P	90 - 110
Zinc	105	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A74059

Included Lab Sample IDs: 1864629, 1864630, 1864634

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	101	102	P/P	90 - 110
Total-P	102	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A74070

Included Lab Sample IDs: 1864629, 1864630, 1864634

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	100	P/P	90 - 110
NO2NO3-N	100	100	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A74088

Included Lab Sample IDs: 1864627, 1864628, 1864633

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	102	P/P	90 - 110
Chloride	103	101	P/P	90 - 110
Sulfate	95.9	98.4	P/P	90 - 110
Sulfate	99.5	95.9	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A74108

Included Lab Sample IDs: 1864647

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	98.3	96.5	P/P	90 - 110
Chromium	98.7	92.7	P/P	90 - 110
Copper	97.9	96.0	P/P	90 - 110
Lead	98.5	95.2	P/P	90 - 110
Nickel	99.5	97.1	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A74111

Included Lab Sample IDs: 1864630, 1864634

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	102	102	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A74136

Included Lab Sample IDs: 1864647

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Silver	92.7	93.4	P/P	90 - 110

Reference Method: USGS O-2060-01

Run ID: A74182

Included Lab Sample IDs: 1864648, 1864649, 1864650, 1864651

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetaminophen	74.0	104	P/P	60 - 150
Acetaminophen	85.6	74.0	P/P	60 - 150
Carbamazepine	104	112	P/P	60 - 150
Carbamazepine	112	121	P/P	60 - 150
Diuron	89.6	106	P/P	60 - 150
Diuron	96.8	89.6	P/P	60 - 150
Fenuron	107	91.2	P/P	60 - 150
Fenuron	97.6	107	P/P	60 - 150
Fluridone	109	118	P/P	60 - 150
Fluridone	118	122	P/P	60 - 150
Imidacloprid	102	110	P/P	60 - 150
Imidacloprid	110	93.2	P/P	60 - 150
Linuron	101	77.2	P/P	60 - 150
Linuron	77.2	117	P/P	60 - 150
Primidone	100	108	P/P	60 - 150
Primidone	70.0	100	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A74220

Included Lab Sample IDs: 1864647

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cadmium	99.2	99.6	P/P	90 - 110

* Pass/Fail determinations are made for each bracketing calibration verification check.

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity						0.984	
EPA 200.7 Rev. 4.4	Calcium	104	100	100				1.37
	Iron	108	106	103	105			2.11
	Magnesium	102	102	102				1.48
	Potassium	104	99.4	99.3	99.6			0.273
	Sodium	105	106	101	98.7			1.26
	Zinc	105	102	100	100			0.188
EPA 200.8 Rev. 5.4	Arsenic	100	99.7	99.8	101			0.976
	Cadmium	99.7	102	104	103			1.06
	Chromium	96.1	98.3	98.2	99.1			0.853
	Copper	98.0	93.7	95.5	97.0			1.47
	Lead	98.7	99.4	100	101			0.864
	Nickel	99.3	96.0	97.3	98.2			0.861
	Silver	92.3	91.3	93.3	89.9			3.72
EPA 300.0 Rev. 2.1	Chloride	101	99.2	98.5			0.0234	
	Sulfate	96.0	93.8	94.9			0.124	
EPA 350.1 Rev. 2.0	Ammonia-N	96.9						1.57
	Ammonia-N	102	99.9	102				1.79
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103	96.7	96.0				0.415
EPA 353.2 Rev. 2.0	NO2NO3-N	103	102	102				0.489
EPA 365.1 Rev. 2.0	Total-P	98.9						2.76
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	103	102	101				0.689
EPA 8321B	Sucralose	108	104	103				0.948
SM 2120 B	Color (true)						1.03	
SM 2320 B-97	Total Alkalinity	104					0.382	
SM 2540 C-97	TDS						8.40	
SM 4500 F-C-97	Fluoride	97.8	98.4	99.8				0.966
SM 5310 B-00	Organic Carbon	99.0	93.5	91.2				1.49
USGS O-2060-01	Acetaminophen	92.0	101	107				5.76
	Carbamazepine	105	120	105				13.9
	Diuron	67.6	89.6	71.2				22.9
	Fenuron	75.6	96.4	66.8				36.3
	Fluridone	90.8	89.0	78.6				11.9
	Imidacloprid	100	124	116				7.33
	Linuron	90.0	107	54.8				64.4
	Primidone	80.4	86.4	85.2				1.40

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1864627, 1864628, 1864633
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1864647
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1864647
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1864627, 1864628, 1864633
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1864627, 1864628, 1864633
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1864629, 1864630, 1864634
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1864629, 1864630, 1864634
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1864629, 1864630, 1864634
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1864629, 1864630, 1864634
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1864631, 1864632, 1864635
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	1864648, 1864649, 1864650, 1864651
SM 2120 B / E31780	True Color measured at 450 nm	1864627, 1864628, 1864633
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1864627, 1864628, 1864633
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1864627, 1864628, 1864633
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1864627, 1864628, 1864633
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1864627, 1864628, 1864633
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1864629, 1864630, 1864634
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1864648, 1864649, 1864650, 1864651

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	01/18/2017			01/18/2017 16:25	Sima Feizi	1864627, 1864628, 1864633
EPA 200.7 Rev. 4.4	01/18/2017	01/19/2017	Elliott D. Healy	01/23/2017	Joshua Ayres	1864647
EPA 200.8 Rev. 5.4	01/18/2017	01/19/2017	Elliott D. Healy	01/25/2017	Betina Topolski	1864647
	01/18/2017	01/19/2017	Elliott D. Healy	01/26/2017	Betina Topolski	1864647
	01/18/2017	01/19/2017	Elliott D. Healy	02/02/2017	Betina Topolski	1864647
EPA 300.0 Rev. 2.1	01/18/2017			01/25/2017	Ping Hua	1864627, 1864628, 1864633
EPA 350.1 Rev. 2.0	01/18/2017			01/19/2017	Sofia Elnemr	1864629
	01/18/2017			01/24/2017	Sofia Elnemr	1864630, 1864634
EPA 351.2 Rev. 2.0	01/18/2017	01/20/2017	Adrian Shelby	01/23/2017	Joseph Suarez	1864629, 1864630, 1864634
EPA 353.2 Rev. 2.0	01/18/2017			01/24/2017	Beverly Y. Sanders	1864629, 1864630, 1864634
EPA 365.1 Rev. 2.0	01/18/2017	01/20/2017	Vijayalakshmi Reddy	01/23/2017	Lipi Saha	1864629, 1864630, 1864634
EPA 365.1 Rev. 2.0 dissolved	01/18/2017			01/18/2017 15:38	Julia Storbeck	1864631
	01/18/2017			01/18/2017 15:52	Julia Storbeck	1864635
	01/18/2017			01/18/2017 15:53	Julia Storbeck	1864632
EPA 8321B	01/18/2017	01/19/2017	Mohammad Ghaffari	01/19/2017	Mohammad Ghaffari	1864648, 1864649, 1864650, 1864651
SM 2120 B	01/18/2017			01/18/2017 15:34	Jared I. Manley	1864627
	01/18/2017			01/18/2017 15:37	Jared I. Manley	1864628
	01/18/2017			01/18/2017 15:44	Jared I. Manley	1864633
SM 2320 B-97	01/18/2017			01/20/2017	Dale L. Simmons	1864627, 1864628, 1864633
SM 2540 C-97	01/18/2017			01/20/2017	Yijie Li	1864627, 1864628, 1864633
SM 2540 D-97	01/18/2017			01/20/2017	Yijie Li	1864627, 1864628, 1864633
SM 4500 F-C-97	01/18/2017			01/20/2017	Dale L. Simmons	1864627, 1864628, 1864633
SM 5310 B-00	01/18/2017			01/19/2017	Julie Michelle Frank	1864629, 1864630, 1864634
USGS O-2060-01	01/18/2017	01/24/2017	Hoor Shaik	01/30/2017	Juyoung Kim	1864648, 1864649, 1864650, 1864651