

Chemical Analysis Report

WQAP-2017-04-20-01

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

Event Description: **2017 SMP Kits A & C**
Request ID: **RQ-2017-04-10-09**
Customer: **WQAP**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
2295 Victoria Ave.
Suite 364
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Certified by: Liang Lin, Environmental Administrator

Date Certified: 18-MAY-2017 10:45

A handwritten signature in black ink, appearing to read "Liang Lin", on a light-colored background.

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: ALLIGATOR CREEK NORTH PRONG ABOVE CR768

Collection Date/Time: 04/19/2017 08:50

Field ID: G2SD041917-20

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1890537	EPA 180.1 Rev. 2.0	Turbidity	3.3		NTU	P323801	
	EPA 300.0 Rev. 2.1	Chloride	87		mg Cl/L	P324307	
		Sulfate	37		mg SO4/L	P324302	
	SM 2120 B	Color (true)	20	A	PCU	P323759	
	SM 2320 B-97	Total Alkalinity	265		mg CaCO3/L	P324293	
	SM 2540 C-97	TDS	476		mg/L	P324506	
	SM 2540 D-97	TSS	2	U	mg/L	P324213	
1890540	SM 4500 F-C-97	Fluoride	0.24		mg F/L	P325241	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.007		mg N/L	P323775	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.43		mg N/L	P323798	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.033		mg N/L	P323967	
	EPA 365.1 Rev. 2.0	Total-P	0.011		mg P/L	P323835	
1890543	SM 5310 B-00	Organic Carbon	6.6		mg C/L	P323785	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P323755	
1890554	EPA 200.7 Rev. 4.4	Calcium	120		mg/L	P323983	
		Iron	390		ug/L	P323983	
		Magnesium	7.74		mg/L	P323983	
		Potassium	1.2		mg/L	P323983	
		Sodium	47.6		mg/L	P323983	
		Zinc	5.0	U	ug/L	P323983	
	EPA 200.8 Rev. 5.4	Arsenic	0.68		ug/L	P323983	
		Cadmium	0.020	U	ug/L	P323983	
		Chromium	0.40	U	ug/L	P323983	
		Copper	0.20	U	ug/L	P323983	
		Lead	0.050	U	ug/L	P323983	
		Nickel	0.41	I	ug/L	P323983	
		Silver	0.010	U	ug/L	P323983	

Ref. Method and Comment:

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

Sample Location: ALLIGATOR CREEK NORTH PRONG ABOVE CR768

Collection Date/Time: 04/19/2017 08:50

Field ID: G2SD041917-20

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1890552	EPA 8321B	Sucralose**	0.14		ug/L	P323688	
	USGS O-2060-01	2,4-D	0.0040	U	ug/L	P323640	
		Diuron	0.0020	U	ug/L	P323640	
		Fenuron	0.010	U	ug/L	P323640	
		Imidacloprid	0.0020	U	ug/L	P323640	MS
		Bentazon	0.0022	I	ug/L	P323640	MS
		Linuron	0.010	U	ug/L	P323640	
		Acetaminophen**	0.020	U	ug/L	P323640	
		MCP	0.0040	U	ug/L	P323640	

Field ID: G2SD041917-20

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1890552	USGS O-2060-01	Carbamazepine**	8.0E-04	I	ug/L	P323640	
		Triclopyr**	0.010	U	ug/L	P323640	
		Primidone**	0.020	U	ug/L	P323640	
		Fluridone**	5.0E-04	U	ug/L	P323640	MS

Ref. Method and Comment:
USGS O-2060-01: Results confirmed in re-extraction.

Sample Location: ALLIGATOR CR SOUTH BRANCH @ SR768

Collection Date/Time: 04/19/2017 09:10

Field ID: G2SD041917-22

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1890553	EPA 8321B	Sucralose**	0.012	I	ug/L	P323688	
	USGS O-2060-01	2,4-D	0.0040	U	ug/L	P323640	
		Diuron	0.0020	U	ug/L	P323640	
		Fenuron	0.010	U	ug/L	P323640	
		Imidacloprid	0.0020	U	ug/L	P323640	MS
		Bentazon	0.0010	U	ug/L	P323640	MS
		Linuron	0.010	U	ug/L	P323640	
		Acetaminophen**	0.020	U	ug/L	P323640	
		MCP	0.0040	U	ug/L	P323640	
		Carbamazepine**	5.0E-04	U	ug/L	P323640	
		Triclopyr**	0.010	U	ug/L	P323640	
		Primidone**	0.020	U	ug/L	P323640	
		Fluridone**	5.0E-04	U	ug/L	P323640	MS

Sample Location: ALLIGATOR CR SOUTH BRANCH @ SR768

Collection Date/Time: 04/19/2017 09:10

Field ID: G2SD041917-22

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1890538	EPA 180.1 Rev. 2.0	Turbidity	24		NTU	P323801	
	EPA 300.0 Rev. 2.1	Chloride	240		mg Cl/L	P324307	
		Sulfate	37		mg SO4/L	P324302	
	SM 2120 B	Color (true)	13	A	PCU	P323763	
	SM 2320 B-97	Total Alkalinity	247		mg CaCO3/L	P324293	
	SM 2540 C-97	TDS	709		mg/L	P324506	
	SM 2540 D-97	TSS	19		mg/L	P324213	
	SM 4500 F-C-97	Fluoride	0.24		mg F/L	P325403	
1890541	EPA 350.1 Rev. 2.0	Ammonia-N	0.33		mg N/L	P323775	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.81		mg N/L	P323798	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.009	I	mg N/L	P323967	
	EPA 365.1 Rev. 2.0	Total-P	0.23		mg P/L	P323835	
	SM 5310 B-00	Organic Carbon	7.8		mg C/L	P323785	
1890544	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.013		mg P/L	P323755	
1890555	EPA 200.7 Rev. 4.4	Calcium	122		mg/L	P323983	
		Iron	3.46E+03		ug/L	P323983	
		Magnesium	19.8		mg/L	P323983	

Field ID: G2SD041917-22

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1890555	EPA 200.7 Rev. 4.4	Potassium	3.3		mg/L	P323983	
		Sodium	103		mg/L	P323983	
		Zinc	5.0	U	ug/L	P323983	
	EPA 200.8 Rev. 5.4	Arsenic	3.21		ug/L	P323983	
		Cadmium	0.020	U	ug/L	P323983	
		Chromium	1.1	I	ug/L	P323983	
		Copper	0.22	I	ug/L	P323983	
		Lead	0.18	I	ug/L	P323983	
		Nickel	0.34	I	ug/L	P323983	
		Silver	0.010	U	ug/L	P323983	

Ref. Method and Comment:

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

Sample Location: ALLIGATOR CR SOUTH BR @ SR768 DUP

Collection Date/Time: 04/19/2017 09:15

Field ID: G2SD041917-24

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1890539	EPA 180.1 Rev. 2.0	Turbidity	20		NTU	P323801	
	EPA 300.0 Rev. 2.1	Chloride	240		mg Cl/L	P324307	
		Sulfate	37		mg SO4/L	P324302	
		Color (true)	12		PCU	P323763	
	SM 2320 B-97	Total Alkalinity	247		mg CaCO3/L	P324293	
	SM 2540 C-97	TDS	711		mg/L	P324506	
	SM 2540 D-97	TSS	19		mg/L	P324213	
	SM 4500 F-C-97	Fluoride	0.24		mg F/L	P325403	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.33		mg N/L	P323775	
		Kjeldahl Nitrogen	0.80		mg N/L	P323798	
1890542	EPA 353.2 Rev. 2.0	NO2NO3-N	0.01	I	mg N/L	P323967	
	EPA 365.1 Rev. 2.0	Total-P	0.21		mg P/L	P323835	
	SM 5310 B-00	Organic Carbon	7.9		mg C/L	P323785	
1890545	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.014		mg P/L	P323755	
1890556	EPA 200.7 Rev. 4.4	Calcium	123		mg/L	P323983	
		Iron	3.21E+03		ug/L	P323983	
		Magnesium	19.7		mg/L	P323983	
		Potassium	3.3		mg/L	P323983	
		Sodium	105		mg/L	P323983	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P323983	
		Arsenic	3.15		ug/L	P323983	
		Cadmium	0.020	U	ug/L	P323983	
		Chromium	0.82	I	ug/L	P323983	
		Copper	0.20	U	ug/L	P323983	
		Lead	0.13	I	ug/L	P323983	
		Nickel	0.27	I	ug/L	P323983	
		Silver	0.010	U	ug/L	P323983	

Ref. Method and Comment:

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P323801

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P323983

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: P323983

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: P324302

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324307

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P323775

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P323798

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P323967

Component	Result	Code	Units
NO2NO3-N	0.004	U	mg N/L

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P323835

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P323755

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

Reference Method: EPA 8321B
Batch ID: P323688

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P323759

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P323763

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P324293

Component	Result	Code	Units
Total Alkalinity	0.65	U	mg CaCO3/L

Reference Method: SM 2540 C-97
Batch ID: P324506

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P324213

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report Method Blank Results

Reference Method: SM 4500 F-C-97
 Batch ID: P325241

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
 Batch ID: P325403

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
 Batch ID: P323785

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

Reference Method: USGS O-2060-01
 Batch ID: P323640

Component	Result	Code	Units
2,4-D	0.0040	U	ug/L
Acetaminophen	0.020	U	ug/L
Bentazon	0.0010	U	ug/L
Carbamazepine	5.0E-04	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.010	U	ug/L
Fluridone	5.0E-04	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.010	U	ug/L
MCP	0.0040	U	ug/L
Primidone	0.020	U	ug/L
Triclopyr	0.010	U	ug/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
 Batch ID: P323983

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	101		P	85 - 115
Iron	107		P	85 - 115
Magnesium	109		P	85 - 115
Potassium	104		P	85 - 115
Sodium	103		P	85 - 115
Zinc	100		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
 Batch ID: P323983

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	104		P	85 - 115
Cadmium	103		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P323983

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chromium	103		P	85 - 115
Copper	97.3		P	85 - 115
Lead	101		P	85 - 115
Nickel	99.6		P	85 - 115
Silver	102		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324302

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	98.0		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324307

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P323775

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	105		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P323798

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P323967

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	106		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P323835

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	109		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P323755

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	97.6		P	90 - 110

Reference Method: EPA 8321B
Batch ID: P323688

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

Reference Method: EPA 8321B
Batch ID: P323688

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	87.0		P	40 - 140

Reference Method: SM 2320 B-97
Batch ID: P324293

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P325241

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	101		P	92 - 103

Reference Method: SM 4500 F-C-97
Batch ID: P325403

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.3		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P323785

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	100		P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P323640

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	85.7		P	40 - 140
Acetaminophen	99.2		P	40 - 140
Bentazon	89.2		P	40 - 140
Carbamazepine	110		P	40 - 140
Diuron	93.5		P	40 - 140
Fenuron	119		P	40 - 140
Fluridone	98.2		P	40 - 140
Imidacloprid	104		P	40 - 160
Linuron	96.7		P	40 - 140
MCP	87.3		P	40 - 140
Primidone	98.2		P	40 - 140
Triclopyr	81.5		P	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P323983

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1890115	Calcium	104		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P323983

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1890115	Iron	107		P	80 - 120
1890115	Magnesium	107		P	80 - 120
1890115	Potassium	104		P	80 - 120
1890115	Sodium	100		P	80 - 120
1890115	Zinc	103		P	80 - 120
1890227	Calcium	96.4		P	80 - 120
1890227	Iron	106	105	P/P	80 - 120
1890227	Magnesium	104	103	P/P	80 - 120
1890227	Potassium	110	111	P/P	80 - 120
1890227	Sodium	100	101	P/P	80 - 120
1890227	Zinc	98.7	96.1	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P323983

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1890115	Arsenic	107		P	80 - 120
1890115	Cadmium	103		P	80 - 120
1890115	Chromium	101		P	80 - 120
1890115	Copper	98.9		P	80 - 120
1890115	Lead	102		P	80 - 120
1890115	Nickel	99.3		P	80 - 120
1890115	Silver	101		P	80 - 120
1890227	Arsenic	100	100	P/P	80 - 120
1890227	Cadmium	100	98.9	P/P	80 - 120
1890227	Chromium	101	101	P/P	80 - 120
1890227	Copper	95.4	95.7	P/P	80 - 120
1890227	Lead	101	100	P/P	80 - 120
1890227	Nickel	98.0	98.0	P/P	80 - 120
1890227	Silver	100	101	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324302

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1890411	Sulfate	99.1		P	90 - 110
1890443	Sulfate	98.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324307

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1890411	Chloride	99.6		P	90 - 110
1890443	Chloride	98.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P323775

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1890540	Ammonia-N	105	98.2	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P323798

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1890540	Kjeldahl Nitrogen	94.2	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P323967

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1890587	NO2NO3-N	105	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P323835

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1890540	Total-P	110	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P323755

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1890543	O-Phosphate-P	99.9	101	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P323688

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1890552	Sucralose	94.7	98.7	P/P	40 - 140

Reference Method: SM 4500 F-C-97
Batch ID: P325241

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1890087	Fluoride	101	104	P/P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P325403

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1890410	Fluoride	100	100	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P323785

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1890444	Organic Carbon	107		P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P323640

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1890186	2,4-D	90.5	86.0	P/P	40 - 140
1890186	Acetaminophen	90.7	82.4	P/P	40 - 140
1890186	Bentazon	37.2	35.4	F/F	40 - 140
1890186	Carbamazepine	79.5	83.3	P/P	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: USGS O-2060-01
 Batch ID: P323640

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1890186	Diuron	59.9	60.1	P/P	40 - 140
1890186	Fenuron	79.6	74.3	P/P	40 - 140
1890186	Fluridone	9.20	12.0	F/F	40 - 140
1890186	Imidacloprid	195	193	F/F	40 - 160
1890186	Linuron	59.3	60.4	P/P	40 - 140
1890186	MCP	64.9	64.5	P/P	40 - 140
1890186	Primidone	95.7	92.2	P/P	40 - 140
1890186	Triclopyr	63.0	62.2	P/P	40 - 140

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P323801

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890443	Turbidity	1.49	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
 Batch ID: P323983

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890227	Calcium	0.666	Spike	P	0 - 20
1890227	Iron	0.501	Spike	P	0 - 20
1890227	Magnesium	0.456	Spike	P	0 - 20
1890227	Potassium	0.880	Spike	P	0 - 20
1890227	Sodium	0.251	Spike	P	0 - 20
1890227	Zinc	2.64	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
 Batch ID: P323983

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890227	Arsenic	0.162	Spike	P	0 - 20
1890227	Cadmium	1.16	Spike	P	0 - 20
1890227	Chromium	0.308	Spike	P	0 - 20
1890227	Copper	0.339	Spike	P	0 - 20
1890227	Lead	0.787	Spike	P	0 - 20
1890227	Nickel	0.0661	Spike	P	0 - 20
1890227	Silver	0.647	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P324302

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890411	Sulfate	1.10	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324307

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890411	Chloride	0.0834	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P323775

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890540	Ammonia-N	5.65	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P323798

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890540	Kjeldahl Nitrogen	5.03	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P323967

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890587	NO2NO3-N	0.277	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P323835

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890540	Total-P	3.91	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P323755

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890543	O-Phosphate-P	0.698	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P323688

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890552	Sucralose	3.67	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P323759

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890537	Color (true)	0.990	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 2120 B
Batch ID: P323763

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890538	Color (true)	8.53	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P324293

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890584	Total Alkalinity	0.465	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P324506

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890584	TDS	0.733	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P325241

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890087	Fluoride	2.62	Spike	P	0 - 3.0

Reference Method: SM 4500 F-C-97
Batch ID: P325403

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890410	Fluoride	0.0	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P323785

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890444	Organic Carbon	0.176	Spike	P	0 - 20

Reference Method: USGS O-2060-01
Batch ID: P323640

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890186	2,4-D	4.80	Spike	P	0 - 30
1890186	Acetaminophen	9.59	Spike	P	0 - 30
1890186	Bentazon	4.18	Spike	P	0 - 30
1890186	Carbamazepine	4.67	Spike	P	0 - 30
1890186	Diuron	0.333	Spike	P	0 - 30
1890186	Fenuron	6.89	Spike	P	0 - 30
1890186	Fluridone	26.4	Spike	P	0 - 30
1890186	Imidacloprid	1.25	Spike	P	0 - 30
1890186	Linuron	1.84	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: USGS O-2060-01
 Batch ID: P323640

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890186	MCP	0.618	Spike	P	0 - 30
1890186	Primidone	3.73	Spike	P	0 - 30
1890186	Triclopyr	1.28	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: 1890552
 Field Sample ID: G2SD041917-20

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	89.5	P	40 - 150
USGS O-2060-01	2,4-D-d3	85.8	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	110	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	108	P	30 - 160
USGS O-2060-01	Diuron-d6	86.0	P	30 - 150
USGS O-2060-01	Primidone-d5	95.2	P	30 - 150

Lab Sample ID: 1890553
 Field Sample ID: G2SD041917-22

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	110	P	40 - 150
USGS O-2060-01	2,4-D-d3	87.6	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	85.6	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	91.6	P	30 - 160
USGS O-2060-01	Diuron-d6	78.0	P	30 - 150
USGS O-2060-01	Primidone-d5	84.9	P	30 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Run ID: A75911
 Included Lab Sample IDs: 1890543, 1890544, 1890545

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.9	97.9	P/P	90 - 110
O-Phosphate-P	98.5	97.4	P/P	90 - 110

Reference Method: SM 2120 B
 Run ID: A75914
 Included Lab Sample IDs: 1890537, 1890538, 1890539

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	99.7	P/P	85 - 115
Color (true)	96.1	98.4	P/P	85 - 115

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A75919

Included Lab Sample IDs: 1890540, 1890541, 1890542

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	104	104	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A75923

Included Lab Sample IDs: 1890540, 1890541, 1890542

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	99.5	98.6	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A75925

Included Lab Sample IDs: 1890537, 1890538, 1890539

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.5	99.5	P/P	95 - 105

Reference Method: EPA 8321B

Run ID: A75944

Included Lab Sample IDs: 1890552, 1890553

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	142	107	P/P	60 - 150
Sucralose	91.1	97.9	P/P	60 - 150

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A75961

Included Lab Sample IDs: 1890541, 1890542

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	106	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A75963

Included Lab Sample IDs: 1890540, 1890541, 1890542

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	103	104	P/P	90 - 110
Kjeldahl Nitrogen	104	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A75967

Included Lab Sample IDs: 1890540

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A75983

Included Lab Sample IDs: 1890540, 1890541, 1890542

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
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Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A75983

Included Lab Sample IDs: 1890540, 1890541, 1890542

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	102	104	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A75999

Included Lab Sample IDs: 1890537, 1890538, 1890539

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	104	101	P/P	90 - 110
Sulfate	98.5	94.1	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A76039

Included Lab Sample IDs: 1890554, 1890555, 1890556

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	93.7	92.9	P/P	90 - 110
Arsenic	94.4	93.7	P/P	90 - 110
Cadmium	93.7	93.2	P/P	90 - 110
Cadmium	94.9	93.7	P/P	90 - 110
Chromium	96.1	95.0	P/P	90 - 110
Chromium	96.4	96.1	P/P	90 - 110
Copper	93.7	92.4	P/P	90 - 110
Copper	94.9	93.7	P/P	90 - 110
Lead	98.0	97.4	P/P	90 - 110
Lead	98.7	98.0	P/P	90 - 110
Nickel	93.6	92.1	P/P	90 - 110
Nickel	95.4	93.6	P/P	90 - 110
Silver	93.9	94.5	P/P	90 - 110
Silver	95.8	93.9	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A76086

Included Lab Sample IDs: 1890537, 1890538, 1890539

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	105	P/P	90 - 110
Total Alkalinity	103	101	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A76102

Included Lab Sample IDs: 1890554, 1890555, 1890556

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	103	103	P/P	90 - 110
Iron	104	106	P/P	90 - 110
Magnesium	103	105	P/P	90 - 110
Potassium	101	100	P/P	90 - 110
Sodium	101	103	P/P	90 - 110
Zinc	99.5	99.1	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: USGS O-2060-01

Run ID: A76387

Included Lab Sample IDs: 1890552, 1890553

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	92.7	103	P/P	50 - 150
2,4-D	97.6	92.7	P/P	50 - 150
Acetaminophen	112	94.5	P/P	60 - 150
Acetaminophen	94.5	109	P/P	60 - 150
Bentazon	61.6	59.4	P/P	50 - 150
Bentazon	65.6	61.6	P/P	50 - 150
Carbamazepine	82.9	80.4	P/P	60 - 150
Carbamazepine	94.4	82.9	P/P	60 - 150
Diuron	100	79.7	P/P	60 - 150
Diuron	79.7	85.1	P/P	60 - 150
Fenuron	103	100	P/P	60 - 150
Fenuron	108	103	P/P	60 - 150
Fluridone	71.2	70.1	P/P	60 - 150
Fluridone	84.3	71.2	P/P	60 - 150
Imidacloprid	85.7	88.3	P/P	60 - 150
Imidacloprid	96.1	85.7	P/P	60 - 150
Linuron	101	85.3	P/P	60 - 150
Linuron	85.3	89.5	P/P	60 - 150
MCPP	89.4	95.4	P/P	50 - 150
MCPP	93.3	89.4	P/P	50 - 150
Primidone	85.4	96.4	P/P	60 - 150
Primidone	98.0	85.4	P/P	60 - 150
Triclopyr	93.2	99.5	P/P	50 - 150
Triclopyr	96.1	93.2	P/P	50 - 150

Reference Method: SM 4500 F-C-97

Run ID: A76396

Included Lab Sample IDs: 1890537

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

Reference Method: SM 4500 F-C-97

Run ID: A76469

Included Lab Sample IDs: 1890538, 1890539

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	98.1	P/P	90 - 110
Fluoride	96.7	100	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	Precision	MS
				LCS	SMP
EPA 180.1 Rev. 2.0	Turbidity			1.49	

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			Precision SMP	MS
			LCS				
EPA 200.7 Rev. 4.4	Calcium	101	104	96.4			0.666
	Iron	107	107	106	105		0.501
	Magnesium	109	107	104	103		0.456
	Potassium	104	104	110	111		0.880
	Sodium	103	100	100	101		0.251
	Zinc	100	103	98.7	96.1		2.64
EPA 200.8 Rev. 5.4	Arsenic	104	107	100	100		0.162
	Cadmium	103	103	100	98.9		1.16
	Chromium	103	101	101	101		0.308
	Copper	97.3	98.9	95.4	95.7		0.339
	Lead	101	102	101	100		0.787
	Nickel	99.6	99.3	98.0	98.0		0.0661
	Silver	102	101	100	101		0.647
EPA 300.0 Rev. 2.1	Chloride	101	99.6	98.6		0.0834	
	Sulfate	98.0	99.1	98.7		1.10	
EPA 350.1 Rev. 2.0	Ammonia-N	105	105	98.2			5.65
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	102	94.2	101			5.03
EPA 353.2 Rev. 2.0	NO2NO3-N	106	105	106			0.277
EPA 365.1 Rev. 2.0	Total-P	109	110	105			3.91
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.6	99.9	101			0.698
EPA 8321B	Sucralose	87.0	94.7	98.7			3.67
SM 2120 B	Color (true)					0.990	
	Color (true)					8.53	
SM 2320 B-97	Total Alkalinity	103				0.465	
SM 2540 C-97	TDS					0.733	
SM 4500 F-C-97	Fluoride	101	101	104			2.62
	Fluoride	96.3	100	100			0.0
SM 5310 B-00	Organic Carbon	100	107				0.176
USGS O-2060-01	2,4-D	85.7	90.5	86.0			4.80
	Acetaminophen	99.2	90.7	82.4			9.59
	Bentazon	89.2	37.2	35.4			4.18
	Carbamazepine	110	79.5	83.3			4.67
	Diuron	93.5	59.9	60.1			0.333
	Fenuron	119	79.6	74.3			6.89
	Fluridone	98.2	9.20	12.0			26.4
	Imidacloprid	104	195	193			1.25
	Linuron	96.7	59.3	60.4			1.84
	MCPP	87.3	64.9	64.5			0.618
	Primidone	98.2	95.7	92.2			3.73
	Triclopyr	81.5	63.0	62.2			1.28

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1890537, 1890538, 1890539
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1890554, 1890555, 1890556
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1890554, 1890555, 1890556
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1890537, 1890538, 1890539
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1890537, 1890538, 1890539

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1890540, 1890541, 1890542
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1890540, 1890541, 1890542
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1890540, 1890541, 1890542
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1890540, 1890541, 1890542
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1890543, 1890544, 1890545
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	1890552, 1890553
SM 2120 B / E31780	True Color measured at 450 nm	1890537, 1890538, 1890539
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1890537, 1890538, 1890539
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1890537, 1890538, 1890539
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1890537, 1890538, 1890539
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1890537, 1890538, 1890539
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1890540, 1890541, 1890542
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1890552, 1890553
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1890552, 1890553

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	04/20/2017			04/20/2017 16:03	Blanca Fach	1890537, 1890538, 1890539
EPA 200.7 Rev. 4.4	04/20/2017	04/25/2017	Elliott D. Healy	05/01/2017	Martin Acosta	1890554, 1890555, 1890556
EPA 200.8 Rev. 5.4	04/20/2017	04/25/2017	Elliott D. Healy	04/27/2017	Betina Topolski	1890554, 1890555, 1890556
EPA 300.0 Rev. 2.1	04/20/2017			04/28/2017	Ping Hua	1890537, 1890538, 1890539
EPA 350.1 Rev. 2.0	04/20/2017			04/20/2017	Julie Michelle Frank	1890540, 1890541, 1890542
EPA 351.2 Rev. 2.0	04/20/2017	04/21/2017	Adrian Shelby	04/24/2017	Joseph Suarez	1890540, 1890541, 1890542
EPA 353.2 Rev. 2.0	04/20/2017			04/25/2017	Beverly Y. Sanders	1890540, 1890541, 1890542
EPA 365.1 Rev. 2.0	04/20/2017	04/21/2017	Vijayalakshmi Reddy	04/24/2017	Lipi Saha	1890540, 1890541, 1890542
EPA 365.1 Rev. 2.0 dissolved	04/20/2017			04/20/2017 14:28	Anthony C. Onicha	1890543
	04/20/2017			04/20/2017 14:52	Anthony C. Onicha	1890544
	04/20/2017			04/20/2017 14:53	Anthony C. Onicha	1890545
EPA 8321B	04/20/2017	04/20/2017	Mohammad Ghaffari	04/20/2017	Mohammad Ghaffari	1890552, 1890553
SM 2120 B	04/20/2017			04/20/2017 16:25	Julia Storbeck	1890537
	04/20/2017			04/20/2017 17:04	Julia Storbeck	1890538
	04/20/2017			04/20/2017 17:05	Julia Storbeck	1890539
SM 2320 B-97	04/20/2017			04/28/2017	Dale L. Simmons	1890537
	04/20/2017			04/29/2017	Dale L. Simmons	1890538, 1890539
SM 2540 C-97	04/20/2017			04/24/2017	Sima Feizi	1890537, 1890538, 1890539
SM 2540 D-97	04/20/2017			04/24/2017	Sima Feizi	1890537, 1890538, 1890539
SM 4500 F-C-97	04/20/2017			05/13/2017	Dale L. Simmons	1890537
	04/20/2017			05/16/2017	Dale L. Simmons	1890538, 1890539
SM 5310 B-00	04/20/2017			04/20/2017	Julie Michelle Frank	1890540, 1890541, 1890542
USGS O-2060-01	04/20/2017	04/22/2017	Fe-Val Siddell	05/08/2017	Juyoung Kim	1890552, 1890553