

Chemical Analysis Report

SE-DIST-2017-11-02-01

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

Event Description: **SMP-G1 Okeechobee Run**
Request ID: **RQ-2017-10-30-14**
Customer: **SE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
2199 South Rock Road
Fort Pierce, FL 34945
Attn: Matthew Sewell

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Certified by: Liang Lin, Environmental Administrator

Date Certified: 01-DEC-2017 15:01

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: Otter Creek @ 441

Collection Date/Time: 11/01/2017 10:20

Field ID: G1SE0007

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1942475	EPA 180.1 Rev. 2.0	Turbidity	1.8		NTU	P334589	
	EPA 300.0 Rev. 2.1	Chloride	65		mg Cl/L	P334974	
		Sulfate	32		mg SO4/L	P334976	
	SM 2120 B	Color (true)	220		PCU	P334661	
	SM 2320 B-97	Total Alkalinity	43		mg CaCO3/L	P335162	
	SM 2540 C-97	TDS	292	A	mg/L	P335223	
	SM 2540 D-97	TSS	3	IA	mg/L	P335134	
	SM 4500 F-C-97	Fluoride	0.072	I	mg F/L	P335166	
1942476	EPA 350.1 Rev. 2.0	Ammonia-N	0.061		mg N/L	P335186	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P335022	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.10		mg N/L	P335031	
	EPA 365.1 Rev. 2.0	Total-P	0.15		mg P/L	P334866	
	SM 5310 B-00	Organic Carbon	27		mg C/L	P335197	
1942477	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.11		mg P/L	P334602	
1942496	EPA 8321B	Sucralose**	0.010	U	ug/L	P334540	
	USGS O-2060-01	2,4-D	0.0020	UQ	ug/L	P335857	
		Diuron	8.0E-04	U	ug/L	P334541	
		Fenuron	0.0080	U	ug/L	P334541	
		Imidacloprid	0.0014	I	ug/L	P334541	MS
		Bentazon	8.0E-04	UQ	ug/L	P335857	
		Linuron	0.0040	U	ug/L	P334541	
		Acetaminophen**	0.0080	U	ug/L	P334541	
		MCP	0.0020	UQ	ug/L	P335857	
		Carbamazepine**	4.0E-04	U	ug/L	P334541	
		Triclopyr**	0.0040	UQ	ug/L	P335857	
		Primidone**	0.0040	U	ug/L	P334541	
		Fluridone**	4.0E-04	U	ug/L	P334541	

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.

USGS O-2060-01: Sample required re-extraction beyond normal holding time due to reagent performance inconsistencies.

Sample Location: Oak Creek @ SR68

Collection Date/Time: 11/01/2017 11:15

Field ID: G4SE0080

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1942481	EPA 180.1 Rev. 2.0	Turbidity	2.7		NTU	P334589	
	EPA 300.0 Rev. 2.1	Chloride	9.8		mg Cl/L	P334974	
		Sulfate	1.1		mg SO4/L	P334976	
	SM 2120 B	Color (true)	290		PCU	P334661	
	SM 2320 B-97	Total Alkalinity	6.1		mg CaCO3/L	P335162	
	SM 2540 C-97	TDS	83		mg/L	P335223	
	SM 2540 D-97	TSS	4	I	mg/L	P335134	
	SM 4500 F-C-97	Fluoride	0.040	I	mg F/L	P335166	
1942482	EPA 350.1 Rev. 2.0	Ammonia-N	0.046		mg N/L	P335186	

Field ID: G4SE0080

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1942482	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P335022	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.019		mg N/L	P335330	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P334866	
	SM 5310 B-00	Organic Carbon	21		mg C/L	P335235	
1942483	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.080		mg P/L	P334602	
1942498	EPA 8321B	Sucralose**	0.010	U	ug/L	P334540	
	USGS O-2060-01	2,4-D	0.0020	UQ	ug/L	P335857	
		Diuron	8.0E-04	U	ug/L	P334541	
		Fenuron	0.0080	U	ug/L	P334541	
		Imidacloprid	8.0E-04	U	ug/L	P334541	MS
		Bentazon	8.0E-04	UQ	ug/L	P335857	
		Linuron	0.0040	U	ug/L	P334541	
		Acetaminophen**	0.0080	U	ug/L	P334541	
		MCP	0.0020	UQ	ug/L	P335857	
		Carbamazepine**	4.0E-04	U	ug/L	P334541	
		Triclopyr**	0.0040	UQ	ug/L	P335857	
		Primidone**	0.0040	U	ug/L	P334541	
		Fluridone**	4.0E-04	U	ug/L	P334541	

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.

USGS O-2060-01: Sample required re-extraction beyond normal holding time due to reagent performance inconsistencies.

Sample Location: Taylor Creek @ SR-70

Collection Date/Time: 11/01/2017 12:00

Field ID: G1SE0011

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1942478	EPA 180.1 Rev. 2.0	Turbidity	4.5		NTU	P334589	
	EPA 300.0 Rev. 2.1	Chloride	43		mg Cl/L	P334974	
		Sulfate	36		mg SO4/L	P334976	
		Color (true)	240		PCU	P334661	
	SM 2320 B-97	Total Alkalinity	126		mg CaCO3/L	P335162	
	SM 2540 C-97	TDS	326		mg/L	P335223	
	SM 2540 D-97	TSS	4	I	mg/L	P335134	
	SM 4500 F-C-97	Fluoride	0.094	I	mg F/L	P335166	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.47		mg N/L	P335186	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.0		mg N/L	P335022	
1942479	EPA 353.2 Rev. 2.0	NO2NO3-N	0.54		mg N/L	P335330	
	EPA 365.1 Rev. 2.0	Total-P	0.19		mg P/L	P334866	
	SM 5310 B-00	Organic Carbon	29		mg C/L	P335197	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.13		mg P/L	P334602	
	EPA 8321B	Sucralose**	0.13		ug/L	P334540	
1942497	USGS O-2060-01	2,4-D	0.058	Q	ug/L	P335857	
		Diuron	0.0015	I	ug/L	P334541	
		Fenuron	0.0080	U	ug/L	P334541	
		Imidacloprid	0.0057		ug/L	P334541	MS

Field ID: G1SE0011

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1942497	USGS O-2060-01	Bentazon	0.065	Q	ug/L	P335857	
		Linuron	0.0040	U	ug/L	P334541	
		Acetaminophen**	0.0080	U	ug/L	P334541	
		MCP	0.0020	UQ	ug/L	P335857	
		Carbamazepine**	7.2E-04	I	ug/L	P334541	
		Triclopyr**	0.0040	UQ	ug/L	P335857	
		Primidone**	0.0040	U	ug/L	P334541	
		Fluridone**	4.0E-04	U	ug/L	P334541	
1942499	EPA 200.7 Rev. 4.4	Calcium	59.0		mg/L	P334816	
		Iron	1.33E+03		ug/L	P334816	
		Magnesium	5.12		mg/L	P334816	
		Potassium	3.8		mg/L	P334816	
		Sodium	29.8		mg/L	P334816	
		Zinc	6.1	I	ug/L	P334816	
	EPA 200.8 Rev. 5.4	Arsenic	1.63		ug/L	P334816	
		Cadmium	0.020	U	ug/L	P334816	
		Chromium	0.89	I	ug/L	P334816	
		Copper	0.83		ug/L	P334816	
		Lead	0.24		ug/L	P334816	
		Nickel	1.04		ug/L	P334816	
		Silver	0.010	U	ug/L	P334816	

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.
 USGS O-2060-01: Sample required re-extraction beyond normal holding time due to reagent performance inconsistencies.
 EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P334589

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
 Batch ID: P334816

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P334816

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: P334974

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P334976

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P335186

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P335022

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P335031

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P335330

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P334866

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P334602

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

Reference Method: EPA 8321B
Batch ID: P334540

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P334661

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P335162

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

Reference Method: SM 2540 C-97
Batch ID: P335223

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P335134

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P335166

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P335197

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

Reference Method: SM 5310 B-00
Batch ID: P335235

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

Quality Assurance Report Method Blank Results

Reference Method: USGS O-2060-01
Batch ID: P334541

Component	Result	Code	Units
Acetaminophen	0.0080	U	ug/L
Carbamazepine	4.0E-04	U	ug/L
Diuron	8.0E-04	U	ug/L
Fenuron	0.0080	U	ug/L
Fluridone	4.0E-04	U	ug/L
Imidacloprid	8.0E-04	U	ug/L
Linuron	0.0040	U	ug/L
Primidone	0.0040	U	ug/L

Reference Method: USGS O-2060-01
Batch ID: P335857

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
MCPP	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P334816

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	102		P	85 - 115
Iron	105		P	85 - 115
Magnesium	102		P	85 - 115
Potassium	99.5		P	85 - 115
Sodium	100		P	85 - 115
Zinc	101		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P334816

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	104		P	85 - 115
Cadmium	107		P	85 - 115
Chromium	104		P	85 - 115
Copper	98.3		P	85 - 115
Lead	95.7		P	85 - 115
Nickel	101		P	85 - 115
Silver	97.2		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P334974

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	98.5		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P334976

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	98.1		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P335186

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P335022

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: P335031

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	103		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P335330

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P334866

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P334602

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	95.2		P	90 - 110

Reference Method: EPA 8321B
Batch ID: P334540

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	83.2		P	40 - 150

Reference Method: SM 2320 B-97
Batch ID: P335162

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	95 - 108

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97
 Batch ID: P335166

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.2		P	92 - 103

Reference Method: SM 5310 B-00
 Batch ID: P335197

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.4		P	85 - 115

Reference Method: SM 5310 B-00
 Batch ID: P335235

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.6		P	85 - 115

Reference Method: USGS O-2060-01
 Batch ID: P334541

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetaminophen	103		P	30 - 150
Carbamazepine	110		P	40 - 150
Diuron	95.7		P	40 - 150
Fenuron	115		P	40 - 150
Fluridone	112		P	40 - 150
Imidacloprid	112		P	40 - 160
Linuron	105		P	40 - 150
Primidone	102		P	40 - 150

Reference Method: USGS O-2060-01
 Batch ID: P335857

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	94.9		P	40 - 150
Bentazon	97.8		P	30 - 150
MCPP	92.8		P	40 - 150
Triclopyr	94.0		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
 Batch ID: P334816

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1941925	Calcium	101		P	80 - 120
1941925	Iron	105		P	80 - 120
1941925	Magnesium	101		P	80 - 120
1941925	Potassium	99.9		P	80 - 120
1941925	Sodium	103		P	80 - 120
1941925	Zinc	100		P	80 - 120
1942789	Iron	104	103	P/P	80 - 120
1942789	Magnesium	100		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P334816

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1942789	Potassium	99.1	100	P/P	80 - 120
1942789	Sodium	101		P	80 - 120
1942789	Zinc	97.3	96.7	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P334816

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1941925	Arsenic	104		P	80 - 120
1941925	Cadmium	107		P	80 - 120
1941925	Chromium	102		P	80 - 120
1941925	Copper	96.4		P	80 - 120
1941925	Lead	95.5		P	80 - 120
1941925	Nickel	97.4		P	80 - 120
1941925	Silver	96.8		P	80 - 120
1942789	Arsenic	106	99.0	P/P	80 - 120
1942789	Cadmium	107	100	P/P	80 - 120
1942789	Chromium	103	96.9	P/P	80 - 120
1942789	Copper	94.0	88.0	P/P	80 - 120
1942789	Lead	96.8	89.7	P/P	80 - 120
1942789	Nickel	98.3	91.2	P/P	80 - 120
1942789	Silver	97.4	90.9	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P334974

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1942402	Chloride	92.1		P	90 - 110
1942421	Chloride	95.5		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P334976

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1942402	Sulfate	91.7		P	90 - 110
1942421	Sulfate	96.5		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P335022

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1942554	Kjeldahl Nitrogen	106	106	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P335031

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1942423	NO2NO3-N	100	101	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P335330

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1942554	NO2NO3-N	107	109	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P334866

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1942554	Total-P	103	98.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P334602

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1942561	O-Phosphate-P	95.9	92.1	P/P	90 - 110

Reference Method: EPA 8321B
 Batch ID: P334540

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1942103	Sucralose	69.4	64.9	P/P	40 - 150

Reference Method: SM 4500 F-C-97
 Batch ID: P335166

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1943171	Fluoride	99.4	100	P/P	91 - 105

Reference Method: SM 5310 B-00
 Batch ID: P335197

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1942360	Organic Carbon	99.8	102	P/P	85 - 115

Reference Method: SM 5310 B-00
 Batch ID: P335235

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1942482	Organic Carbon	96.6		P	85 - 115

Reference Method: USGS O-2060-01
 Batch ID: P334541

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1941999	Acetaminophen	98.8	118	P/P	30 - 150
1941999	Carbamazepine	103	107	P/P	40 - 150
1941999	Diuron	75.6	80.9	P/P	40 - 150
1941999	Fenuron	112	108	P/P	40 - 150
1941999	Fluridone	87.6	85.3	P/P	40 - 150
1941999	Imidacloprid	186	198	F/F	40 - 160
1941999	Linuron	86.2	86.8	P/P	40 - 150
1941999	Primidone	125	119	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: USGS O-2060-01
Batch ID: P335857

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1942197	2,4-D	83.8	88.3	P/P	40 - 150
1942197	Bentazon	62.6	66.1	P/P	30 - 150
1942197	MCCP	68.5	70.1	P/P	40 - 150
1942197	Triclopyr	65.6	71.2	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P334589

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1942438	Turbidity	1.10	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P334816

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1942789	Calcium	0.811	Spike	P	0 - 20
1942789	Iron	0.648	Spike	P	0 - 20
1942789	Magnesium	0.810	Spike	P	0 - 20
1942789	Potassium	0.854	Spike	P	0 - 20
1942789	Sodium	1.42	Spike	P	0 - 20
1942789	Zinc	0.523	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P334816

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1942789	Arsenic	6.58	Spike	P	0 - 20
1942789	Cadmium	6.74	Spike	P	0 - 20
1942789	Chromium	5.61	Spike	P	0 - 20
1942789	Copper	6.47	Spike	P	0 - 20
1942789	Lead	7.56	Spike	P	0 - 20
1942789	Nickel	7.38	Spike	P	0 - 20
1942789	Silver	6.82	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P334974

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1942402	Chloride	0.610	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P334976

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1942402	Sulfate	0.450	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P335186

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1942424	Ammonia-N	0.616	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P335022

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1942554	Kjeldahl Nitrogen	0.183	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P335031

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1942423	NO2NO3-N	0.763	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P335330

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1942554	NO2NO3-N	1.86	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P334866

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1942554	Total-P	3.81	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P334602

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1942561	O-Phosphate-P	4.04	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P334540

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1942103	Sucralose	6.77	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: SM 2120 B
Batch ID: P334661

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1942546	Color (true)	5.52	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P335162

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1943171	Total Alkalinity	0.127	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P335223

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1942475	TDS	5.13	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P335166

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1943171	Fluoride	0.466	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P335197

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1942360	Organic Carbon	1.61	Spike	P	0 - 20

Reference Method: SM 5310 B-00
Batch ID: P335235

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1942482	Organic Carbon	0.353	Spike	P	0 - 20

Reference Method: USGS O-2060-01
Batch ID: P334541

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1941999	Acetaminophen	5.95	Spike	P	0 - 30
1941999	Carbamazepine	4.37	Spike	P	0 - 30
1941999	Diuron	3.58	Spike	P	0 - 30
1941999	Fenuron	3.75	Spike	P	0 - 30
1941999	Fluridone	2.39	Spike	P	0 - 30
1941999	Imidacloprid	5.35	Spike	P	0 - 30
1941999	Linuron	0.670	Spike	P	0 - 30
1941999	Primidone	4.43	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: USGS O-2060-01
Batch ID: P335857

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1942197	2,4-D	5.29	Spike	P	0 - 30
1942197	Bentazon	4.96	Spike	P	0 - 30
1942197	MCP	2.41	Spike	P	0 - 30
1942197	Triclopyr	8.26	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: 1942496
Field Sample ID: G1SE0007

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	131	P	30 - 160
EPA 8321B	Carbamazepine-d10	81.2	P	30 - 160
EPA 8321B	Diuron-d6	62.3	P	30 - 160
EPA 8321B	Primidone-d5	77.7	P	30 - 160
EPA 8321B	Sucralose-d6	58.6	P	40 - 160
USGS O-2060-01	2,4-D-d3	70.7	P	30 - 160
USGS O-2060-01	Acetaminophen-d4	131	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	81.2	P	30 - 160
USGS O-2060-01	Diuron-d6	62.3	P	30 - 160
USGS O-2060-01	Primidone-d5	77.7	P	30 - 160
USGS O-2060-01	Sucralose-d6	58.6	P	40 - 160

Lab Sample ID: 1942497
Field Sample ID: G1SE0011

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	115	P	30 - 160
EPA 8321B	Carbamazepine-d10	78.3	P	30 - 160
EPA 8321B	Diuron-d6	54.9	P	30 - 160
EPA 8321B	Primidone-d5	75.9	P	30 - 160
EPA 8321B	Sucralose-d6	56.8	P	40 - 160
USGS O-2060-01	2,4-D-d3	69.9	P	30 - 160
USGS O-2060-01	Acetaminophen-d4	115	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	78.3	P	30 - 160
USGS O-2060-01	Diuron-d6	54.9	P	30 - 160
USGS O-2060-01	Primidone-d5	75.9	P	30 - 160
USGS O-2060-01	Sucralose-d6	56.8	P	40 - 160

Lab Sample ID: 1942498
Field Sample ID: G4SE0080

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	144	P	30 - 160
EPA 8321B	Carbamazepine-d10	90.8	P	30 - 160
EPA 8321B	Diuron-d6	64.0	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 1942498
Field Sample ID: G4SE0080

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Primidone-d5	93.0	P	30 - 160
EPA 8321B	Sucralose-d6	85.8	P	40 - 160
USGS O-2060-01	2,4-D-d3	73.1	P	30 - 160
USGS O-2060-01	Acetaminophen-d4	144	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	90.8	P	30 - 160
USGS O-2060-01	Diuron-d6	64.0	P	30 - 160
USGS O-2060-01	Primidone-d5	93.0	P	30 - 160
USGS O-2060-01	Sucralose-d6	85.8	P	40 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A80005
Included Lab Sample IDs: 1942475, 1942478, 1942481

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	101	101	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A80009
Included Lab Sample IDs: 1942477, 1942480, 1942483

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.1	94.3	P/P	90 - 110

Reference Method: SM 2120 B
Run ID: A80032
Included Lab Sample IDs: 1942475, 1942478, 1942481

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	103	P/P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A80134
Included Lab Sample IDs: 1942475, 1942478, 1942481

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	100	P/P	90 - 110
Chloride	102	101	P/P	90 - 110
Sulfate	100	100	P/P	90 - 110
Sulfate	100	100	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A80140
Included Lab Sample IDs: 1942499

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	106	108	P/P	90 - 110
Cadmium	107	106	P/P	90 - 110
Chromium	106	107	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A80140

Included Lab Sample IDs: 1942499

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Copper	103	105	P/P	90 - 110
Lead	97.9	98.8	P/P	90 - 110
Silver	98.3	97.7	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A80141

Included Lab Sample IDs: 1942499

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	101	100	P/P	90 - 110
Iron	100	100	P/P	90 - 110
Magnesium	99.7	99.9	P/P	90 - 110
Potassium	99.0	99.2	P/P	90 - 110
Sodium	99.7	98.8	P/P	90 - 110
Zinc	99.3	99.3	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A80142

Included Lab Sample IDs: 1942476, 1942479, 1942482

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	101	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A80164

Included Lab Sample IDs: 1942476

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	101	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A80183

Included Lab Sample IDs: 1942499

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

Reference Method: SM 2320 B-97

Run ID: A80224

Included Lab Sample IDs: 1942475, 1942478, 1942481

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	104	100	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A80224

Included Lab Sample IDs: 1942475, 1942478, 1942481

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: USGS O-2060-01

Run ID: A80228

Included Lab Sample IDs: 1942496, 1942497, 1942498

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetaminophen	93.7	96.3	P/P	60 - 150
Acetaminophen	97.0	93.7	P/P	60 - 150
Carbamazepine	105	108	P/P	60 - 150
Carbamazepine	108	104	P/P	60 - 150
Diuron	110	111	P/P	60 - 150
Diuron	111	110	P/P	60 - 150
Fenuron	106	105	P/P	60 - 150
Fenuron	108	106	P/P	60 - 150
Fluridone	105	102	P/P	60 - 160
Fluridone	106	105	P/P	60 - 160
Imidacloprid	88.1	90.6	P/P	60 - 150
Imidacloprid	98.1	88.1	P/P	60 - 150
Linuron	105	102	P/P	60 - 150
Linuron	108	105	P/P	60 - 150
Primidone	103	95.1	P/P	60 - 150
Primidone	95.1	95.8	P/P	60 - 150

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A80229

Included Lab Sample IDs: 1942476, 1942479, 1942482

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	101	103	P/P	90 - 110
Ammonia-N	101	102	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A80236

Included Lab Sample IDs: 1942476, 1942479

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A80249

Included Lab Sample IDs: 1942479, 1942482

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

Reference Method: SM 5310 B-00

Run ID: A80250

Included Lab Sample IDs: 1942482

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	94.9	95.0	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A80274

Included Lab Sample IDs: 1942496, 1942497, 1942498

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

Reference Method: EPA 8321B

Run ID: A80274

Included Lab Sample IDs: 1942496, 1942497, 1942498

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	121	121	P/P	60 - 150

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A80291

Included Lab Sample IDs: 1942476, 1942479, 1942482

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	94.1	96.1	P/P	90 - 110

Reference Method: USGS O-2060-01

Run ID: A80527

Included Lab Sample IDs: 1942496, 1942497, 1942498

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	97.0	87.4	P/P	50 - 150
Bentazon	112	113	P/P	50 - 150
MCP	96.6	82.5	P/P	50 - 150
Triclopyr	92.8	83.4	P/P	50 - 150

* 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						1.10	
EPA 200.7 Rev. 4.4	Calcium	102	101					0.811
	Iron	105	105	104	103			0.648
	Magnesium	102	101	100				0.810
	Potassium	99.5	99.9	99.1	100			0.854
	Sodium	100	103	101				1.42
	Zinc	101	100	97.3	96.7			0.523
EPA 200.8 Rev. 5.4	Arsenic	104	104	106	99.0			6.58
	Cadmium	107	107	107	100			6.74
	Chromium	104	102	103	96.9			5.61
	Copper	98.3	96.4	94.0	88.0			6.47
	Lead	95.7	95.5	96.8	89.7			7.56
	Nickel	101	97.4	98.3	91.2			7.38
	Silver	97.2	96.8	97.4	90.9			6.82
EPA 300.0 Rev. 2.1	Chloride	98.5	92.1	95.5			0.610	
	Sulfate	98.1	91.7	96.5			0.450	
EPA 350.1 Rev. 2.0	Ammonia-N	103						0.616
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	102	106	106				0.183
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	103	100	101				0.763
	NO ₂ NO ₃ -N	110	107	109				1.86
EPA 365.1 Rev. 2.0	Total-P	102	103	98.9				3.81
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	95.2	95.9	92.1				4.04

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Sucralose	83.2	69.4	64.9		6.77
SM 2120 B	Color (true)				5.52	
SM 2320 B-97	Total Alkalinity	102			0.127	
SM 2540 C-97	TDS				5.13	
SM 4500 F-C-97	Fluoride	98.2	99.4	100		0.466
SM 5310 B-00	Organic Carbon	99.4	99.8	102		1.61
	Organic Carbon	94.6	96.6			0.353
USGS O-2060-01	2,4-D	94.9	83.8	88.3		5.29
	Acetaminophen	103	98.8	118		5.95
	Bentazon	97.8	62.6	66.1		4.96
	Carbamazepine	110	103	107		4.37
	Diuron	95.7	75.6	80.9		3.58
	Fenuron	115	112	108		3.75
	Fluridone	112	87.6	85.3		2.39
	Imidacloprid	112	186	198		5.35
	Linuron	105	86.2	86.8		0.670
	MCP	92.8	68.5	70.1		2.41
	Primidone	102	125	119		4.43
	Triclopyr	94.0	65.6	71.2		8.26

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1942475, 1942478, 1942481
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1942499
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1942499
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1942475, 1942478, 1942481
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1942475, 1942478, 1942481
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1942476, 1942479, 1942482
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1942476, 1942479, 1942482
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1942476, 1942479, 1942482
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1942476, 1942479, 1942482
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1942477, 1942480, 1942483
EPA 8321B / E31780	Analysis of sucralose in water matrices by HPLC/MS/MS	1942496, 1942497, 1942498
SM 2120 B / E31780	True Color measured at 450 nm	1942475, 1942478, 1942481
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1942475, 1942478, 1942481
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1942475, 1942478, 1942481
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1942475, 1942478, 1942481
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1942475, 1942478, 1942481
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1942476, 1942479, 1942482
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1942496, 1942497, 1942498
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1942496, 1942497, 1942498

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	11/02/2017			11/02/2017 17:33	DeAsia Armster	1942475, 1942478, 1942481
EPA 200.7 Rev. 4.4	11/02/2017	11/07/2017	Elliott D. Healy	11/08/2017	Betina Topolski	1942499
EPA 200.8 Rev. 5.4	11/02/2017	11/07/2017	Elliott D. Healy	11/08/2017	Nadine Brooks	1942499
	11/02/2017	11/07/2017	Elliott D. Healy	11/09/2017	Robert K Palmer	1942499
EPA 300.0 Rev. 2.1	11/02/2017			11/08/2017	Julia Storbeck	1942475, 1942478, 1942481
EPA 350.1 Rev. 2.0	11/02/2017			11/13/2017	Sofia Elnemr	1942476, 1942479, 1942482
EPA 351.2 Rev. 2.0	11/02/2017	11/09/2017	Adrian Shelby	11/15/2017	Tanya Welborn	1942476, 1942479, 1942482
EPA 353.2 Rev. 2.0	11/02/2017			11/09/2017	Beverly Y. Sanders	1942476
	11/02/2017			11/14/2017	Beverly Y. Sanders	1942479, 1942482
EPA 365.1 Rev. 2.0	11/02/2017	11/07/2017	Sima Feizi	11/08/2017	Lipi Saha	1942476, 1942479, 1942482
EPA 365.1 Rev. 2.0 dissolved	11/02/2017			11/02/2017 14:53	Megan Treadwell	1942477
	11/02/2017			11/02/2017 14:54	Megan Treadwell	1942480
	11/02/2017			11/02/2017 14:55	Megan Treadwell	1942483
EPA 8321B	11/02/2017	11/02/2017	Juyoung Kim	11/13/2017	Juyoung Kim	1942496, 1942497, 1942498
SM 2120 B	11/02/2017			11/02/2017 17:01	Tanya Welborn	1942475, 1942478
	11/02/2017			11/02/2017 17:02	Tanya Welborn	1942481
SM 2320 B-97	11/02/2017			11/10/2017	Dale L. Simmons	1942475, 1942478, 1942481
SM 2540 C-97	11/02/2017			11/06/2017	Yijie Li	1942475, 1942478, 1942481
SM 2540 D-97	11/02/2017			11/06/2017	Yijie Li	1942475, 1942478, 1942481
SM 4500 F-C-97	11/02/2017			11/10/2017	Dale L. Simmons	1942475, 1942478, 1942481
SM 5310 B-00	11/02/2017			11/13/2017	Ping Hua	1942482
	11/02/2017			11/14/2017	Ping Hua	1942476, 1942479
USGS O-2060-01	11/02/2017	11/02/2017	Hoor Shaik	11/10/2017	S. M. Reddy	1942496, 1942497, 1942498
	11/02/2017	11/27/2017	Hoor Shaik	11/29/2017	Julie Michelle Frank	1942496, 1942497, 1942498