

Chemical Analysis Report

NE-DIST-2017-03-16-01

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-2017-03-20-10**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
8800 Baymeadows Way West
Jacksonville, FL 32256-7577
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Certified by: Liang Lin, Environmental Administrator

Date Certified: 11-APR-2017 12:23

A handwritten signature in black ink, appearing to read "Liang Lin", is written on a light-colored, textured 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: Hatchett Crk @ SR 26

Collection Date/Time: 03/15/2017 09:55

Field ID: G1NE0096 03152017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1880564	EPA 180.1 Rev. 2.0	Turbidity	1.6		NTU	P321692	
	EPA 300.0 Rev. 2.1	Chloride	12		mg Cl/L	P322219	
		Sulfate	1.0		mg SO4/L	P322410	
	SM 2120 B	Color (true)	190		PCU	P321693	
	SM 2320 B-97	Total Alkalinity	76		mg CaCO3/L	P321869	
	SM 2540 C-97	TDS	134		mg/L	P322357	
	SM 2540 D-97	TSS	2	U	mg/L	P322156	
	SM 4500 F-C-97	Fluoride	0.13		mg F/L	P321872	
1880565	EPA 350.1 Rev. 2.0	Ammonia-N	0.007		mg N/L	P321778	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.57		mg N/L	P321801	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P321963	
	EPA 365.1 Rev. 2.0	Total-P	0.089		mg P/L	P321827	
	SM 5310 B-00	Organic Carbon	21		mg C/L	P321721	
1880566	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.053		mg P/L	P322294	
1880580	EPA 200.7 Rev. 4.4	Calcium	18.5		mg/L	P321845	
		Iron	500		ug/L	P321845	
		Magnesium	9.53		mg/L	P321845	
		Potassium	0.99	I	mg/L	P321845	
		Sodium	6.6		mg/L	P321845	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P321845	
		Arsenic	0.76		ug/L	P321845	
		Cadmium	0.020	U	ug/L	P321845	
		Chromium	0.43	I	ug/L	P321845	
		Copper	0.20	I	ug/L	P321845	
		Lead	0.12	I	ug/L	P321845	
		Nickel	0.51	I	ug/L	P321845	
		Silver	0.010	U	ug/L	P321845	

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: Hatchett Crk @ SR 26

Collection Date/Time: 03/15/2017 09:55

Field ID: G1NE0096 03152017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1880581	EPA 8321B	Sucralose**	0.011	I	ug/L	P321668	
	USGS O-2060-01	2,4-D	0.0040	U	ug/L	P321665	MS
		Diuron	0.0040	U	ug/L	P321665	
		Fenuron	0.0080	U	ug/L	P321665	
		Imidacloprid	0.0040	U	ug/L	P321665	
		Bentazon	0.0040	U	ug/L	P321665	MS
		Linuron	0.0040	UJ	ug/L	P321665	CCV, MS
		Acetaminophen**	0.0040	U	ug/L	P321665	
		MCP	0.0040	U	ug/L	P321665	MS
		Carbamazepine**	4.0E-04	U	ug/L	P321665	

Field ID: G1NE0096 03152017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1880581	USGS O-2060-01	Triclopyr**	0.010	U	ug/L	P321665	
		Primidone**	0.0080	U	ug/L	P321665	
		Fluridone**	4.0E-04	U	ug/L	P321665	

Ref. Method and Comment:

EPA 8321B: MS accuracy for sucralose could not be assessed due to high concentration of parameter in the spiked sample.

USGS O-2060-01: Refer to the narrative for an explanation of QC Codes.

Sample Location: Lake Forest Crk @ University Ave

Collection Date/Time: 03/15/2017 10:20

Field ID: G1NE0098 03152017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1880558	EPA 180.1 Rev. 2.0	Turbidity	2.5		NTU	P321691	
	EPA 300.0 Rev. 2.1	Chloride	14		mg Cl/L	P322219	
		Sulfate	16		mg SO4/L	P322410	
	SM 2120 B	Color (true)	82		PCU	P321693	
	SM 2320 B-97	Total Alkalinity	62		mg CaCO3/L	P321869	
	SM 2540 C-97	TDS	139		mg/L	P322357	
	SM 2540 D-97	TSS	2	U	mg/L	P322156	
	SM 4500 F-C-97	Fluoride	0.16		mg F/L	P321872	
1880560	EPA 350.1 Rev. 2.0	Ammonia-N	0.024		mg N/L	P321778	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.40		mg N/L	P321801	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.009	I	mg N/L	P321962	
	EPA 365.1 Rev. 2.0	Total-P	0.073		mg P/L	P321827	
	SM 5310 B-00	Organic Carbon	12		mg C/L	P321721	
1880562	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.054		mg P/L	P322294	

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: Lake Forest Crk @ University Ave

Collection Date/Time: 03/15/2017 10:20

Field ID: G1NE0098 03152017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1880582	EPA 8321B	Sucralose**	0.10		ug/L	P321668	
	USGS O-2060-01	2,4-D	0.015	I	ug/L	P321665	MS
		Diuron	0.0040	U	ug/L	P321665	
		Fenuron	0.0080	U	ug/L	P321665	
		Imidacloprid	0.0067	I	ug/L	P321665	
		Bentazon	0.0040	U	ug/L	P321665	MS
		Linuron	0.0040	UJ	ug/L	P321665	CCV, MS
		Acetaminophen**	0.0040	U	ug/L	P321665	
		MCP	0.0040	U	ug/L	P321665	MS
		Carbamazepine**	4.0E-04	U	ug/L	P321665	
		Triclopyr**	0.013	I	ug/L	P321665	
		Primidone**	0.0080	U	ug/L	P321665	
		Fluridone**	4.0E-04	U	ug/L	P321665	

Field ID: G1NE0098 03152017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
Ref. Method and Comment:							
EPA 8321B: MS accuracy for sucralose could not be assessed due to high concentration of parameter in the spiked sample.							
USGS O-2060-01: Refer to the narrative for an explanation of QC Codes.							

Sample Location: Alachua Sink - Lachua trail at gauge

Collection Date/Time: 03/15/2017 11:00

Field ID: G1NE0207 03152017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1880559	EPA 180.1 Rev. 2.0	Turbidity	2.7	A	NTU	P321692	
	EPA 300.0 Rev. 2.1	Chloride	110		mg Cl/L	P322219	
		Sulfate	81		mg SO4/L	P322410	
	SM 2120 B	Color (true)	78		PCU	P321693	
	SM 2320 B-97	Total Alkalinity	136		mg CaCO3/L	P321869	
	SM 2540 C-97	TDS	474		mg/L	P322357	
	SM 2540 D-97	TSS	6	I	mg/L	P322156	
	SM 4500 F-C-97	Fluoride	0.43		mg F/L	P321872	
1880561	EPA 350.1 Rev. 2.0	Ammonia-N	0.053		mg N/L	P321778	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P321801	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.074		mg N/L	P321962	
	EPA 365.1 Rev. 2.0	Total-P	0.31		mg P/L	P321827	
	SM 5310 B-00	Organic Carbon	17		mg C/L	P321721	
1880563	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.22		mg P/L	P322294	
	dissolved						

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: Alachua Sink - Lachua trail at gauge

Collection Date/Time: 03/15/2017 11:00

Field ID: G1NE0207 03152017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1880583	EPA 8321B	Sucralose**	26		ug/L	P321668	
	USGS O-2060-01	2,4-D	0.0040	U	ug/L	P321665	MS
		Diuron	0.0040	U	ug/L	P321665	
		Fenuron	0.0080	U	ug/L	P321665	
		Imidacloprid	0.0040	U	ug/L	P321665	
		Bentazon	0.0040	U	ug/L	P321665	MS
		Linuron	0.0040	UJ	ug/L	P321665	CCV, MS
		Acetaminophen**	0.0040	U	ug/L	P321665	
		MCP	0.0040	U	ug/L	P321665	MS
		Carbamazepine**	0.020		ug/L	P321665	
		Triclopyr**	0.010	U	ug/L	P321665	
		Primidone**	0.033		ug/L	P321665	
		Fluridone**	4.0E-04	U	ug/L	P321665	

Ref. Method and Comment:
 EPA 8321B: MS accuracy for sucralose could not be assessed due to high concentration of parameter in the spiked sample.
 USGS O-2060-01: Refer to the narrative for an explanation of QC Codes.

Sample Location: Sweetwater Creek above wetland

Collection Date/Time: 03/15/2017 11:50

Field ID: G1NE0001 03152017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1880584	EPA 8321B	Sucralose**	32		ug/L	P321668	
	USGS O-2060-01	2,4-D	0.011	IJ	ug/L	P321665	MS
		Diuron	0.016		ug/L	P321665	
		Fenuron	0.0080	U	ug/L	P321665	
		Imidacloprid	0.083		ug/L	P321665	
		Bentazon	0.0040	UJ	ug/L	P321665	MS
		Linuron	0.0040	UJ	ug/L	P321665	CCV, MS
		Acetaminophen**	0.0040	U	ug/L	P321665	
		MCPD	0.0040	UJ	ug/L	P321665	MS
		Carbamazepine**	0.11		ug/L	P321665	
		Triclopyr**	0.014	I	ug/L	P321665	
		Primidone**	0.056		ug/L	P321665	
		Fluridone**	4.0E-04	U	ug/L	P321665	

Ref. Method and Comment:
 EPA 8321B: MS accuracy for sucralose could not be assessed due to high concentration of parameter in the spiked sample.
 USGS O-2060-01: Refer to the narrative for an explanation of QC Codes.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P321691

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P321692

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
 Batch ID: P321845

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: P321845

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P321845

Component	Result	Code	Units
Silver	0.010	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P322219

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P322410

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P321778

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P321801

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P321962

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P321963

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P321827

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P322294

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
 Batch ID: P321668

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
 Batch ID: P321693

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
 Batch ID: P321869

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

Reference Method: SM 2540 C-97
 Batch ID: P322357

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
 Batch ID: P322156

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
 Batch ID: P321872

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
 Batch ID: P321721

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

Reference Method: USGS O-2060-01
 Batch ID: P321665

Component	Result	Code	Units
2,4-D	0.0040	U	ug/L
Acetaminophen	0.0040	U	ug/L
Bentazon	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
MCPP	0.0040	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: USGS O-2060-01
Batch ID: P321665

Component	Result	Code	Units
Primidone	0.0080	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: P321845

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

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P321845

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	100		P	85 - 115
Cadmium	97.0		P	85 - 115
Chromium	100		P	85 - 115
Copper	100		P	85 - 115
Lead	98.9		P	85 - 115
Nickel	91.1		P	85 - 115
Silver	100		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P322219

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	93.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P322410

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	96.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P321778

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	97.4		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P321801

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P321801

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P321962

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	98.5		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P321963

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	96.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P321827

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P322294

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	98.8		P	90 - 110

Reference Method: EPA 8321B
Batch ID: P321668

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	102		P	40 - 140

Reference Method: SM 2320 B-97
Batch ID: P321869

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

Reference Method: SM 4500 F-C-97
Batch ID: P321872

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.5		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P321721

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.4		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: USGS O-2060-01
Batch ID: P321665

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	121		P	40 - 140
Acetaminophen	128		P	40 - 140
Bentazon	123		P	40 - 140
Carbamazepine	127		P	40 - 140
Diuron	78.4		P	40 - 140
Fenuron	100		P	40 - 140
Fluridone	90.8		P	40 - 140
Imidacloprid	106		P	40 - 160
Linuron	79.2		P	40 - 140
MCPP	121		P	40 - 140
Primidone	99.2		P	40 - 140
Triclopyr	101		P	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P321845

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1880410	Calcium	97.7		P	80 - 120
1880410	Iron	101	101	P/P	80 - 120
1880410	Magnesium	102	104	P/P	80 - 120
1880410	Potassium	98.2	99.6	P/P	80 - 120
1880410	Sodium	99.7	101	P/P	80 - 120
1880410	Zinc	97.8	97.8	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P321845

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1880410	Arsenic	98.4	98.8	P/P	80 - 120
1880410	Cadmium	98.1	97.1	P/P	80 - 120
1880410	Chromium	99.2	99.3	P/P	80 - 120
1880410	Copper	96.3	95.4	P/P	80 - 120
1880410	Lead	97.7	98.4	P/P	80 - 120
1880410	Nickel	93.7	94.0	P/P	80 - 120
1880410	Silver	101	100	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P322219

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1880620	Chloride	94.3		P	90 - 110
1880621	Chloride	92.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P322410

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1880620	Sulfate	103		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P322410

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1880621	Sulfate	95.1		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P321778

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1880467	Ammonia-N	98.4	96.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P321801

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1880622	Kjeldahl Nitrogen	95.2	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P321962

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1880488	NO2NO3-N	94.8		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P321963

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1880565	NO2NO3-N	96.0	96.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P321827

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1880501	Total-P	99.0	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P322294

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1880489	O-Phosphate-P	96.9	92.7	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P321872

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1880713	Fluoride	98.8	98.8	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P321721

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1880391	Organic Carbon	97.4	98.0	P/P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: USGS O-2060-01
Batch ID: P321665

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1880584	2,4-D	143	145	F/F	40 - 140
1880584	Acetaminophen	53.6	55.2	P/P	40 - 140
1880584	Bentazon	206	194	F/F	40 - 140
1880584	Carbamazepine	64.0	56.0	P/P	40 - 140
1880584	Diuron	57.1	54.7	P/P	40 - 140
1880584	Fenuron	60.8	58.0	P/P	40 - 140
1880584	Fluridone	49.6	56.4	P/P	40 - 140
1880584	Imidacloprid	91.2	106	P/P	40 - 160
1880584	Linuron	452	484	F/F	40 - 140
1880584	MCP	148	135	F/P	40 - 140
1880584	Primidone	58.0	87.6	P/P	40 - 140
1880584	Triclopyr	115	91.2	P/P	40 - 140

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P321691

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1880466	Turbidity	10.9	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P321692

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1880559	Turbidity	6.40	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P321845

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1880410	Calcium	2.95	Spike	P	0 - 20
1880410	Iron	0.439	Spike	P	0 - 20
1880410	Magnesium	1.55	Spike	P	0 - 20
1880410	Potassium	1.27	Spike	P	0 - 20
1880410	Sodium	0.830	Spike	P	0 - 20
1880410	Zinc	0.0609	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P321845

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1880410	Arsenic	0.338	Spike	P	0 - 20
1880410	Cadmium	0.980	Spike	P	0 - 20
1880410	Chromium	0.0350	Spike	P	0 - 20
1880410	Copper	0.937	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P321845

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1880410	Lead	0.724	Spike	P	0 - 20
1880410	Nickel	0.353	Spike	P	0 - 20
1880410	Silver	0.830	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P322219

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1880620	Chloride	0.666	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P322410

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1880620	Sulfate	17.0	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P321778

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1880467	Ammonia-N	1.81	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P321801

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1880622	Kjeldahl Nitrogen	4.76	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P321962

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1880488	NO2NO3-N	0.740	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P321963

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1880565	NO2NO3-N	0.519	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P321827

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
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Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P321827

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1880501	Total-P	2.78	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P322294

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1880489	O-Phosphate-P	4.43	Spike	P	0 - 20

Reference Method: EPA 8321B

Batch ID: P321668

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1880583	Sucralose	8.35	Spike	P	0 - 30

Reference Method: SM 2120 B

Batch ID: P321693

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1880466	Color (true)	1.10	Sample	P	0 - 20

Reference Method: SM 2320 B-97

Batch ID: P321869

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1880713	Total Alkalinity	0.292	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97

Batch ID: P322357

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1880466	TDS	0.404	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97

Batch ID: P321872

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1880713	Fluoride	0.0	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00

Batch ID: P321721

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1880391	Organic Carbon	0.563	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: USGS O-2060-01
Batch ID: P321665

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1880584	2,4-D	1.55	Spike	P	0 - 30
1880584	Acetaminophen	2.94	Spike	P	0 - 30
1880584	Bentazon	5.60	Spike	P	0 - 30
1880584	Carbamazepine	4.68	Spike	P	0 - 30
1880584	Diuron	3.33	Spike	P	0 - 30
1880584	Fenuron	4.71	Spike	P	0 - 30
1880584	Fluridone	12.8	Spike	P	0 - 30
1880584	Imidacloprid	7.93	Spike	P	0 - 30
1880584	Linuron	6.84	Spike	P	0 - 30
1880584	MCP	9.04	Spike	P	0 - 30
1880584	Primidone	23.1	Spike	P	0 - 30
1880584	Triclopyr	20.5	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: 1880581
Field Sample ID: G1NE0096 03152017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	108	P	40 - 150
USGS O-2060-01	2,4-D-d3	117	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	68.4	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	54.6	P	40 - 160
USGS O-2060-01	Diuron-d6	43.6	P	40 - 150
USGS O-2060-01	Primidone-d5	66.4	P	40 - 150

Lab Sample ID: 1880582
Field Sample ID: G1NE0098 03152017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	95.5	P	40 - 150
USGS O-2060-01	2,4-D-d3	132	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	70.0	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	57.4	P	40 - 160
USGS O-2060-01	Diuron-d6	53.2	P	40 - 150
USGS O-2060-01	Primidone-d5	83.6	P	40 - 150

Lab Sample ID: 1880583
Field Sample ID: G1NE0207 03152017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	118	P	40 - 150
USGS O-2060-01	2,4-D-d3	119	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	52.2	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	47.8	P	40 - 160
USGS O-2060-01	Diuron-d6	42.8	P	40 - 150

Quality Assurance Report Surrogates

Lab Sample ID: 1880583
 Field Sample ID: G1NE0207 03152017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
USGS O-2060-01	Primidone-d5	60.2	P	40 - 150

Lab Sample ID: 1880584
 Field Sample ID: G1NE0001 03152017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	106	P	40 - 150
USGS O-2060-01	2,4-D-d3	114	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	57.6	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	65.2	P	40 - 160
USGS O-2060-01	Diuron-d6	58.8	P	40 - 150
USGS O-2060-01	Primidone-d5	73.4	P	40 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0
 Run ID: A75149
 Included Lab Sample IDs: 1880558, 1880559, 1880564

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	100	P/P	95 - 105
Turbidity	99.5	100	P/P	95 - 105

Reference Method: SM 2120 B
 Run ID: A75150
 Included Lab Sample IDs: 1880558, 1880559, 1880564

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	99.9	P/P	85 - 115
Color (true)	98.3	100	P/P	85 - 115

Reference Method: USGS O-2060-01
 Run ID: A75159
 Included Lab Sample IDs: 1880581, 1880582, 1880583, 1880584

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetaminophen	101	98.0	P/P	60 - 150
Acetaminophen	104	101	P/P	60 - 150
Carbamazepine	146	105	P/P	60 - 150
Carbamazepine	146	146	P/P	60 - 150
Diuron	125	108	P/P	60 - 150
Diuron	134	125	P/P	60 - 150
Fenuron	129	126	P/P	60 - 150
Fenuron	135	129	P/P	60 - 150
Fluridone	102	105	P/P	60 - 150
Fluridone	104	102	P/P	60 - 150
Imidacloprid	125	101	P/P	60 - 150
Imidacloprid	130	125	P/P	60 - 150
Linuron	186*	153*	F/F	60 - 150
Linuron	225*	186*	F/F	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: USGS O-2060-01

Run ID: A75159

Included Lab Sample IDs: 1880581, 1880582, 1880583, 1880584

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Primidone	100	126	P/P	60 - 150
Primidone	102	100	P/P	60 - 150

Reference Method: SM 5310 B-00

Run ID: A75160

Included Lab Sample IDs: 1880560, 1880561, 1880565

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.6	95.6	P/P	90 - 110
Organic Carbon	99.9	98.6	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A75184

Included Lab Sample IDs: 1880560, 1880561, 1880565

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

Reference Method: SM 2320 B-97

Run ID: A75223

Included Lab Sample IDs: 1880558, 1880559, 1880564

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	104	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A75223

Included Lab Sample IDs: 1880558, 1880559, 1880564

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A75232

Included Lab Sample IDs: 1880560, 1880561, 1880565

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

Reference Method: EPA 8321B

Run ID: A75233

Included Lab Sample IDs: 1880581, 1880582, 1880583, 1880584

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	106	95.9	P/P	60 - 150
Sucralose	99.7	108	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A75255

Included Lab Sample IDs: 1880560, 1880561, 1880565

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	92.6	91.9	P/P	90 - 110
Kjeldahl Nitrogen	93.1	92.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A75257

Included Lab Sample IDs: 1880560, 1880561, 1880565

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	95.5	94.5	P/P	90 - 110
NO2NO3-N	96.0	95.5	P/P	90 - 110

Reference Method: USGS O-2060-01

Run ID: A75269

Included Lab Sample IDs: 1880581, 1880582, 1880583, 1880584

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	117	120	P/P	50 - 150
2,4-D	120	116	P/P	50 - 150
Bentazon	108	98.8	P/P	50 - 150
Bentazon	97.4	108	P/P	50 - 150
MCP	122	125	P/P	50 - 150
MCP	125	125	P/P	50 - 150
Triclopyr	100	92.6	P/P	50 - 150
Triclopyr	92.6	106	P/P	50 - 150

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A75326

Included Lab Sample IDs: 1880558, 1880559, 1880564

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	95.8	95.1	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A75361

Included Lab Sample IDs: 1880580

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	101	102	P/P	90 - 110
Iron	101	99.9	P/P	90 - 110
Magnesium	102	101	P/P	90 - 110
Potassium	101	101	P/P	90 - 110
Sodium	97.7	98.5	P/P	90 - 110
Zinc	101	102	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A75396

Included Lab Sample IDs: 1880558, 1880559, 1880564

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sulfate	98.4	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A75403

Included Lab Sample IDs: 1880562, 1880563, 1880566

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.3	100	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A75446

Included Lab Sample IDs: 1880580

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	96.8	95.7	P/P	90 - 110
Cadmium	95.9	93.7	P/P	90 - 110
Chromium	99.0	98.2	P/P	90 - 110
Copper	98.3	96.7	P/P	90 - 110
Lead	96.2	95.7	P/P	90 - 110
Silver	97.0	95.8	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A75478

Included Lab Sample IDs: 1880580

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Nickel	98.8	97.9	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					10.9	
	Turbidity					6.40	
EPA 200.7 Rev. 4.4	Calcium	101	97.7				2.95
	Iron	102	101	101			0.439
	Magnesium	105	102	104			1.55
	Potassium	99.5	98.2	99.6			1.27
	Sodium	100	99.7	101			0.830
	Zinc	100	97.8	97.8			0.0609
EPA 200.8 Rev. 5.4	Arsenic	100	98.4	98.8			0.338
	Cadmium	97.0	98.1	97.1			0.980
	Chromium	100	99.2	99.3			0.0350
	Copper	100	96.3	95.4			0.937
	Lead	98.9	97.7	98.4			0.724
	Nickel	91.1	93.7	94.0			0.353
EPA 300.0 Rev. 2.1	Silver	100	101	100			0.830
	Chloride	93.2	94.3	92.7		0.666	
	Sulfate	96.8	103	95.1		17.0	
EPA 350.1 Rev. 2.0	Ammonia-N	97.4	98.4	96.2			1.81
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	104	95.2	101			4.76
EPA 353.2 Rev. 2.0	NO2NO3-N	98.5	94.8				0.740

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	SMP
EPA 353.2 Rev. 2.0	NO2NO3-N	96.5	96.0	96.5		
EPA 365.1 Rev. 2.0	Total-P	104	99.0	102		
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.8	96.9	92.7		
EPA 8321B	Sucralose	102				
SM 2120 B	Color (true)					1.10
SM 2320 B-97	Total Alkalinity	104				0.292
SM 2540 C-97	TDS					0.404
SM 4500 F-C-97	Fluoride	96.5	98.8	98.8		
SM 5310 B-00	Organic Carbon	96.4	97.4	98.0		
USGS O-2060-01	2,4-D	121	143	145		
	Acetaminophen	128	53.6	55.2		
	Bentazon	123	206	194		
	Carbamazepine	127	64.0	56.0		
	Diuron	78.4	57.1	54.7		
	Fenuron	100	60.8	58.0		
	Fluridone	90.8	49.6	56.4		
	Imidacloprid	106	91.2	106		
	Linuron	79.2	452	484		
	MCPP	121	135	148		
	Primidone	99.2	58.0	87.6		
	Triclopyr	101	91.2	115		

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1880558, 1880559, 1880564
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1880580
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1880580
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1880558, 1880559, 1880564
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1880558, 1880559, 1880564
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1880560, 1880561, 1880565
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1880560, 1880561, 1880565
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1880560, 1880561, 1880565
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1880560, 1880561, 1880565
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1880562, 1880563, 1880566
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	1880581, 1880582, 1880583, 1880584
SM 2120 B / E31780	True Color measured at 450 nm	1880558, 1880559, 1880564
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1880558, 1880559, 1880564
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1880558, 1880559, 1880564
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1880558, 1880559, 1880564
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1880558, 1880559, 1880564
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1880560, 1880561, 1880565
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1880581, 1880582, 1880583, 1880584
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1880581, 1880582, 1880583, 1880584

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	03/16/2017			03/16/2017 14:13	Sima Feizi	1880558, 1880559, 1880564
EPA 200.7 Rev. 4.4	03/16/2017	03/20/2017	Elliott D. Healy	03/24/2017	Martin Acosta	1880580
EPA 200.8 Rev. 5.4	03/16/2017	03/20/2017	Elliott D. Healy	03/29/2017	Robert K Palmer	1880580
	03/16/2017	03/20/2017	Elliott D. Healy	03/30/2017	Betina Topolski	1880580
EPA 300.0 Rev. 2.1	03/16/2017			03/25/2017	Ping Hua	1880558, 1880559, 1880564
	03/16/2017			03/29/2017	Ping Hua	1880558, 1880559, 1880564
EPA 350.1 Rev. 2.0	03/16/2017			03/17/2017	Sofia Elnemr	1880560, 1880561, 1880565
EPA 351.2 Rev. 2.0	03/16/2017	03/20/2017	Adrian Shelby	03/22/2017	Joseph Suarez	1880560, 1880561, 1880565
EPA 353.2 Rev. 2.0	03/16/2017			03/21/2017	Beverly Y. Sanders	1880560, 1880561, 1880565
EPA 365.1 Rev. 2.0	03/16/2017	03/20/2017	Vijayalakshmi Reddy	03/21/2017	Lipi Saha	1880560, 1880561, 1880565
EPA 365.1 Rev. 2.0 dissolved	03/16/2017			03/16/2017 14:25	Ping Hua	1880562
	03/16/2017			03/16/2017 14:26	Ping Hua	1880563
	03/16/2017			03/16/2017 14:27	Ping Hua	1880566
EPA 8321B	03/16/2017	03/20/2017	Mohammad Ghaffari	03/20/2017	Mohammad Ghaffari	1880582, 1880584
	03/16/2017	03/20/2017	Mohammad Ghaffari	03/21/2017	Mohammad Ghaffari	1880581, 1880583
SM 2120 B	03/16/2017			03/16/2017 15:19	Julie Michelle Frank	1880558
	03/16/2017			03/16/2017 15:20	Julie Michelle Frank	1880559
	03/16/2017			03/16/2017 15:29	Julie Michelle Frank	1880564
SM 2320 B-97	03/16/2017			03/18/2017	Dale L. Simmons	1880558, 1880559, 1880564
SM 2540 C-97	03/16/2017			03/20/2017	Sima Feizi	1880558, 1880559, 1880564
SM 2540 D-97	03/16/2017			03/20/2017	Sima Feizi	1880558, 1880559, 1880564
SM 4500 F-C-97	03/16/2017			03/18/2017	Dale L. Simmons	1880558, 1880559, 1880564
SM 5310 B-00	03/16/2017			03/16/2017	Julie Michelle Frank	1880560, 1880561, 1880565
USGS O-2060-01	03/16/2017	03/17/2017	Hoor Shaik	03/19/2017	Juyoung Kim	1880581, 1880582, 1880583, 1880584
	03/16/2017	03/17/2017	Hoor Shaik	03/23/2017	Juyoung Kim	1880581, 1880582, 1880583, 1880584