

Chemical Analysis Report

WQAP-2017-11-15-01

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

Event Description: **Pollywog OK Roberts & Telegraph**
Request ID: **RQ-2017-11-13-06**
Customer: **WQAP**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
2295 Victoria Ave.
Suite 364
Fort Myers, FL 33901
Attn: Ben Paswater

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Colin Wright, Program Administrator

Date Certified: 07-DEC-2017 17:00

A handwritten signature in black ink, appearing to read "Colin Wright", is written over a light gray rectangular 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: Pollywog Creek @ SR78

Collection Date/Time: 11/14/2017 13:20

Field ID: G3SD111417-1

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1946355	EPA 180.1 Rev. 2.0	Turbidity	3.3		NTU	P335360	
	EPA 300.0 Rev. 2.1	Chloride	13		mg Cl/L	P335409	
		Sulfate	3.3		mg SO4/L	P335411	
	SM 2120 B	Color (true)	410		PCU	P335394	
	SM 2320 B-97	Total Alkalinity	23		mg CaCO3/L	P335627	
	SM 2540 C-97	TDS	99		mg/L	P335829	
	SM 2540 D-97	TSS	4	I	mg/L	P335836	
	SM 4500 F-C-97	Fluoride	0.12		mg F/L	P335631	
1946357	EPA 350.1 Rev. 2.0	Ammonia-N	0.048		mg N/L	P336207	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P335947	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.064		mg N/L	P335813	
	EPA 365.1 Rev. 2.0	Total-P	0.35		mg P/L	P335668	
	SM 5310 B-00	Organic Carbon	27		mg C/L	P335860	
1946359	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.28		mg P/L	P335390	
1946373	EPA 200.7 Rev. 4.4	Calcium	10.1		mg/L	P335662	
		Iron	1.39E+03		ug/L	P335662	
		Magnesium	2.78		mg/L	P335662	
		Potassium	0.92	I	mg/L	P335662	
		Sodium	8.6		mg/L	P335662	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P335662	
		Arsenic	1.45		ug/L	P335662	
		Cadmium	0.020	U	ug/L	P335662	
		Chromium	1.1	I	ug/L	P335662	
		Copper	0.39	I	ug/L	P335662	
		Lead	0.31		ug/L	P335662	
		Nickel	0.84		ug/L	P335662	
		Silver	0.010	U	ug/L	P335662	

Ref. Method and Comment:

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

SM 4500 F-C-97: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Pollywog Creek @ SR78

Collection Date/Time: 11/14/2017 13:20

Field ID: G3SD111417-1

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1946372	EPA 8321B	Sucralose**	0.11		ug/L	P335805	
	USGS O-2060-01	2,4-D	0.0020	U	ug/L	P335308	MS
		Diuron	8.0E-04	U	ug/L	P335308	
		Fenuron	0.0080	U	ug/L	P335308	
		Imidacloprid	0.0026	I	ug/L	P335308	
		Bentazon	8.0E-04	U	ug/L	P335308	MS
		Linuron	0.0040	U	ug/L	P335308	
		Acetaminophen**	0.0080	U	ug/L	P335308	
		MCP	0.0020	U	ug/L	P335308	MS

Field ID: G3SD111417-1

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1946372	USGS O-2060-01	Carbamazepine**	0.0025		ug/L	P335308	
		Triclopyr**	0.0040	U	ug/L	P335308	MS
		Primidone**	0.0040	U	ug/L	P335308	
		Fluridone**	4.0E-04	U	ug/L	P335308	

Ref. Method and Comment:
USGS O-2060-01: Fenuron was detected in the method blank slightly above the MDL.

Sample Location: Ok Branch @ Eucalyptus Bld.

Collection Date/Time: 11/14/2017 13:50

Field ID: G3SD111417-2

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1946356	EPA 180.1 Rev. 2.0	Turbidity	3.0		NTU	P335360	
	EPA 300.0 Rev. 2.1	Chloride	62		mg Cl/L	P335409	
		Sulfate	22		mg SO4/L	P335411	
	SM 2120 B	Color (true)	130		PCU	P335394	
	SM 2320 B-97	Total Alkalinity	226		mg CaCO3/L	P335627	
	SM 2540 C-97	TDS	395		mg/L	P335829	
	SM 2540 D-97	TSS	2	I	mg/L	P335836	
	SM 4500 F-C-97	Fluoride	0.20		mg F/L	P335631	
1946358	EPA 350.1 Rev. 2.0	Ammonia-N	0.15		mg N/L	P336207	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P335947	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.20		mg N/L	P335889	
	EPA 365.1 Rev. 2.0	Total-P	0.090		mg P/L	P335668	
	SM 5310 B-00	Organic Carbon	20		mg C/L	P335860	
1946360	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.070		mg P/L	P335390	
1946374	EPA 200.7 Rev. 4.4	Calcium	89.6		mg/L	P335662	
		Iron	720		ug/L	P335662	
		Magnesium	6.15		mg/L	P335662	
		Potassium	4.6		mg/L	P335662	
		Sodium	44.1		mg/L	P335662	
		Zinc	5.0	U	ug/L	P335662	
	EPA 200.8 Rev. 5.4	Arsenic	1.57		ug/L	P335662	
		Cadmium	0.020	U	ug/L	P335662	
		Chromium	0.65	I	ug/L	P335662	
		Copper	0.29	I	ug/L	P335662	
		Lead	0.066	I	ug/L	P335662	
		Nickel	0.47	I	ug/L	P335662	
		Silver	0.010	U	ug/L	P335662	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
SM 4500 F-C-97: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Banana Branch @ Ft. Denaud Rd.

Collection Date/Time: 11/14/2017 14:25

Field ID: G3SD111417-3

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1946349	EPA 180.1 Rev. 2.0	Turbidity	7.3	A	NTU	P335360	

Field ID: G3SD111417-3

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1946349	EPA 300.0 Rev. 2.1	Chloride	20		mg Cl/L	P335409	
		Sulfate	6.7		mg SO4/L	P335411	
	SM 2120 B	Color (true)	150		PCU	P335392	
	SM 2320 B-97	Total Alkalinity	119		mg CaCO3/L	P335626	
	SM 2540 C-97	TDS	198		mg/L	P335829	
	SM 2540 D-97	TSS	17		mg/L	P335836	
	SM 4500 F-C-97	Fluoride	0.17		mg F/L	P335630	
1946351	EPA 350.1 Rev. 2.0	Ammonia-N	0.074		mg N/L	P336207	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.6		mg N/L	P335946	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.097		mg N/L	P335813	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P335543	
	SM 5310 B-00	Organic Carbon	19		mg C/L	P335860	
1946353	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.051		mg P/L	P335390	

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: Telegraph Swamp South Site

Collection Date/Time: 11/14/2017 12:05

Field ID: G3SD111417-4

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1946350	EPA 180.1 Rev. 2.0	Turbidity	6.6		NTU	P335360	
	EPA 300.0 Rev. 2.1	Chloride	61		mg Cl/L	P335409	
		Sulfate	8.6		mg SO4/L	P335411	
	SM 2120 B	Color (true)	210		PCU	P335394	
	SM 2320 B-97	Total Alkalinity	76		mg CaCO3/L	P335626	
	SM 2540 C-97	TDS	252	A	mg/L	P335829	
	SM 2540 D-97	TSS	5	IA	mg/L	P335836	
1946352	SM 4500 F-C-97	Fluoride	0.12		mg F/L	P335630	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.17		mg N/L	P336207	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.7		mg N/L	P335947	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.12		mg N/L	P335813	
	EPA 365.1 Rev. 2.0	Total-P	0.13		mg P/L	P335543	
1946354	SM 5310 B-00	Organic Carbon	29		mg C/L	P335860	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.054		mg P/L	P335390	

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: P335360

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P335662

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: P335662

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: P335409

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P335411

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P336207

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P335946

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P335947

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: P335813

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P335889

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P335543

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P335668

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P335390

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

Reference Method: EPA 8321B
Batch ID: P335805

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P335392

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P335394

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P335626

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

Quality Assurance Report Method Blank Results

Reference Method: SM 2320 B-97
Batch ID: P335627

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

Reference Method: SM 2540 C-97
Batch ID: P335829

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P335836

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P335630

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P335631

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P335860

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

Reference Method: USGS O-2060-01
Batch ID: P335308

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Bentazon	8.0E-04	U	ug/L
Carbamazepine	4.0E-04	U	ug/L
Diuron	8.0E-04	U	ug/L
Fenuron	0.011	I	ug/L
Fluridone	4.0E-04	U	ug/L
Imidacloprid	8.0E-04	U	ug/L
Linuron	0.0040	U	ug/L
MCPP	0.0020	U	ug/L
Primidone	0.0040	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: P335662

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	103		P	85 - 115
Iron	104		P	85 - 115
Magnesium	103		P	85 - 115
Potassium	98.8		P	85 - 115
Sodium	101		P	85 - 115
Zinc	99.3		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P335662

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	101		P	85 - 115
Cadmium	97.6		P	85 - 115
Chromium	96.6		P	85 - 115
Copper	99.6		P	85 - 115
Lead	91.3		P	85 - 115
Nickel	99.9		P	85 - 115
Silver	98.4		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P335409

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

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P335411

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

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P336207

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

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P335946

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

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P335947

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P335813

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P335889

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P335543

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P335668

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P335390

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

Reference Method: EPA 8321B
Batch ID: P335805

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	73.8		P	40 - 150

Reference Method: SM 2320 B-97
Batch ID: P335626

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

Reference Method: SM 2320 B-97
Batch ID: P335627

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

Reference Method: SM 4500 F-C-97
Batch ID: P335630

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	102		P	92 - 103

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P335631

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

Reference Method: SM 5310 B-00
Batch ID: P335860

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	101		P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P335308

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	68.9	66.4	P/P	40 - 150
Acetaminophen	114	125	P/P	30 - 150
Bentazon	63.7	66.4	P/P	30 - 150
Carbamazepine	132	140	P/P	40 - 150
Diuron	107	103	P/P	40 - 150
Fenuron	140	129	P/P	40 - 150
Fluridone	133	143	P/P	40 - 150
Imidacloprid	108	116	P/P	40 - 160
Linuron	100	107	P/P	40 - 150
MCP	76.5	70.8	P/P	40 - 150
Primidone	99.8	106	P/P	40 - 150
Triclopyr	74.0	71.2	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P335662

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1945810	Calcium	101		P	80 - 120
1945810	Iron	103		P	80 - 120
1945810	Magnesium	103		P	80 - 120
1945810	Potassium	95.4		P	80 - 120
1945810	Sodium	97.8		P	80 - 120
1945810	Zinc	98.4		P	80 - 120
1946215	Calcium	103		P	80 - 120
1946215	Iron	101	104	P/P	80 - 120
1946215	Magnesium	101		P	80 - 120
1946215	Potassium	96.7	100	P/P	80 - 120
1946215	Sodium	98.2	102	P/P	80 - 120
1946215	Zinc	95.6	97.1	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P335662

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1945810	Arsenic	104		P	80 - 120
1945810	Cadmium	103		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P335662

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1945810	Chromium	100		P	80 - 120
1945810	Copper	101		P	80 - 120
1945810	Lead	92.1		P	80 - 120
1945810	Nickel	101		P	80 - 120
1945810	Silver	102		P	80 - 120
1946215	Arsenic	102	99.6	P/P	80 - 120
1946215	Cadmium	101	98.7	P/P	80 - 120
1946215	Chromium	97.3	95.7	P/P	80 - 120
1946215	Copper	95.4	94.0	P/P	80 - 120
1946215	Lead	92.4	91.6	P/P	80 - 120
1946215	Nickel	98.7	95.9	P/P	80 - 120
1946215	Silver	102	99.3	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P335409

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1946320	Chloride	98.9		P	90 - 110
1946491	Chloride	96.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P335411

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1946320	Sulfate	102		P	90 - 110
1946491	Sulfate	100		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P336207

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1946326	Ammonia-N	97.9	97.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P335946

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1946280	Kjeldahl Nitrogen	93.8	97.9	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P335947

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1946378	Kjeldahl Nitrogen	101	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P335813

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1946321	NO2NO3-N	103	103	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P335889

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1946358	NO2NO3-N	101		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P335543

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1946278	Total-P	98.5	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P335668

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1945778	Total-P	103	99.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P335390

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1946200	O-Phosphate-P	94.9	99.9	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P335805

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1947930	Sucralose	107	115	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P335630

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1946193	Fluoride	102	103	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P335860

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1946277	Organic Carbon	101	99.8	P/P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P335308

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1945852	2,4-D	30.7	34.0	F/F	40 - 150
1945852	Acetaminophen	116	121	P/P	30 - 150
1945852	Bentazon	26.0	29.2	F/F	30 - 150
1945852	Carbamazepine	66.3	70.9	P/P	40 - 150
1945852	Diuron	44.7	48.4	P/P	40 - 150
1945852	Fenuron	55.0	57.5	P/P	40 - 150
1945852	Fluridone	65.0	69.3	P/P	40 - 150
1945852	Imidacloprid	135	137	P/P	40 - 160
1945852	Linuron	83.5	83.7	P/P	40 - 150
1945852	MCP	35.7	39.0	F/F	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: USGS O-2060-01
Batch ID: P335308

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1945852	Primidone	73.0	63.4	P/P	40 - 150
1945852	Triclopyr	30.4	31.1	F/F	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P335360

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1946349	Turbidity	4.13	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P335662

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1946215	Calcium	1.40	Spike	P	0 - 20
1946215	Iron	2.48	Spike	P	0 - 20
1946215	Magnesium	2.16	Spike	P	0 - 20
1946215	Potassium	2.50	Spike	P	0 - 20
1946215	Sodium	1.90	Spike	P	0 - 20
1946215	Zinc	1.52	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P335662

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1946215	Arsenic	1.86	Spike	P	0 - 20
1946215	Cadmium	1.86	Spike	P	0 - 20
1946215	Chromium	1.63	Spike	P	0 - 20
1946215	Copper	1.53	Spike	P	0 - 20
1946215	Lead	0.878	Spike	P	0 - 20
1946215	Nickel	2.82	Spike	P	0 - 20
1946215	Silver	2.35	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P335409

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1946491	Chloride	1.40	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P335411

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1946491	Sulfate	1.18	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P336207

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1946326	Ammonia-N	0.0449	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P335946

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1946280	Kjeldahl Nitrogen	3.36	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P335947

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1946378	Kjeldahl Nitrogen	0.948	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P335813

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1946321	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P335889

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1946358	NO2NO3-N	0.251	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P335543

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1946278	Total-P	3.85	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P335668

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1945778	Total-P	2.93	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P335390

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1946200	O-Phosphate-P	4.10	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P335805

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1947930	Sucralose	6.99	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P335392

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1946261	Color (true)	1.54	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P335394

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1946375	Color (true)	0.778	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P335626

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1946193	Total Alkalinity	0.0904	Sample	P	0 - 4.8

Reference Method: SM 2320 B-97
Batch ID: P335627

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1946582	Total Alkalinity	0.331	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P335829

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1946350	TDS	6.35	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P335630

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1946193	Fluoride	0.463	Spike	P	0 - 3.0

Reference Method: SM 4500 F-C-97
Batch ID: P335631

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1946582	Fluoride	0.927	Spike	P	0 - 3.0

Quality Assurance Report Precision

Reference Method: SM 5310 B-00
Batch ID: P335860

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1946277	Organic Carbon	0.932	Spike	P	0 - 20

Reference Method: USGS O-2060-01
Batch ID: P335308

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1945852	2,4-D	10.3	Spike	P	0 - 30
1945852	Acetaminophen	4.53	Spike	P	0 - 30
1945852	Bentazon	8.03	Spike	P	0 - 30
1945852	Carbamazepine	6.41	Spike	P	0 - 30
1945852	Diuron	7.92	Spike	P	0 - 30
1945852	Fenuron	4.39	Spike	P	0 - 30
1945852	Fluridone	6.37	Spike	P	0 - 30
1945852	Imidacloprid	0.766	Spike	P	0 - 30
1945852	Linuron	0.129	Spike	P	0 - 30
1945852	MCP	8.88	Spike	P	0 - 30
1945852	Primidone	14.1	Spike	P	0 - 30
1945852	Triclopyr	2.37	Spike	P	0 - 30
LFB	2,4-D	3.65	LCS	P	0 - 30
LFB	Acetaminophen	9.48	LCS	P	0 - 30
LFB	Bentazon	4.15	LCS	P	0 - 30
LFB	Carbamazepine	5.82	LCS	P	0 - 30
LFB	Diuron	4.60	LCS	P	0 - 30
LFB	Fenuron	8.40	LCS	P	0 - 30
LFB	Fluridone	7.15	LCS	P	0 - 30
LFB	Imidacloprid	7.86	LCS	P	0 - 30
LFB	Linuron	6.22	LCS	P	0 - 30
LFB	MCP	7.70	LCS	P	0 - 30
LFB	Primidone	5.86	LCS	P	0 - 30
LFB	Triclopyr	3.92	LCS	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: 1946372
Field Sample ID: G3SD111417-1

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	136	P	30 - 160
EPA 8321B	Carbamazepine-d10	82.3	P	30 - 160
EPA 8321B	Diuron-d6	55.5	P	30 - 160
EPA 8321B	Primidone-d5	60.9	P	30 - 160
EPA 8321B	Sucralose-d6	97.4	P	40 - 160
USGS O-2060-01	2,4-D-d3	36.5	P	30 - 160
USGS O-2060-01	Acetaminophen-d4	136	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	82.3	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 1946372

Field Sample ID: G3SD111417-1

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
USGS O-2060-01	Diuron-d6	55.5	P	30 - 160
USGS O-2060-01	Primidone-d5	60.9	P	30 - 160
USGS O-2060-01	Sucralose-d6	97.4	P	40 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A80230

Included Lab Sample IDs: 1946349, 1946350, 1946355, 1946356

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	99.2	P/P	90 - 110
Sulfate	100	99.4	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A80289

Included Lab Sample IDs: 1946349, 1946350, 1946355, 1946356

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	101	100	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A80298

Included Lab Sample IDs: 1946353, 1946354, 1946359, 1946360

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	102	98.3	P/P	90 - 110

Reference Method: SM 2120 B

Run ID: A80299

Included Lab Sample IDs: 1946349, 1946350, 1946355, 1946356

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

Reference Method: SM 2320 B-97

Run ID: A80383

Included Lab Sample IDs: 1946349, 1946350, 1946355, 1946356

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

Reference Method: SM 4500 F-C-97

Run ID: A80383

Included Lab Sample IDs: 1946349, 1946350, 1946355, 1946356

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

Reference Method: SM 4500 F-C-97

Run ID: A80383

Included Lab Sample IDs: 1946349, 1946350, 1946355, 1946356

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A80384

Included Lab Sample IDs: 1946351, 1946352

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

Reference Method: USGS O-2060-01

Run ID: A80422

Included Lab Sample IDs: 1946372

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	92.9	86.5	P/P	50 - 150
Acetaminophen	96.6	96.4	P/P	60 - 150
Bentazon	137	132	P/P	50 - 150
Carbamazepine	127	126	P/P	60 - 150
Diuron	116	122	P/P	60 - 150
Fenuron	86.9	90.7	P/P	60 - 150
Fluridone	138	132	P/P	60 - 160
Imidacloprid	91.3	86.2	P/P	60 - 150
Linuron	107	105	P/P	60 - 150
MCPP	99.2	95.5	P/P	50 - 150
Primidone	73.7	80.6	P/P	60 - 150
Triclopyr	100	94.9	P/P	50 - 160

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A80448

Included Lab Sample IDs: 1946373, 1946374

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	100	100	P/P	90 - 110
Iron	101	99.4	P/P	90 - 110
Magnesium	101	99.0	P/P	90 - 110
Potassium	98.4	96.9	P/P	90 - 110
Sodium	97.4	97.3	P/P	90 - 110
Zinc	98.5	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A80452

Included Lab Sample IDs: 1946357, 1946358

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	101	99.6	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A80468

Included Lab Sample IDs: 1946351, 1946352, 1946357

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

Reference Method: SM 5310 B-00

Run ID: A80498

Included Lab Sample IDs: 1946351, 1946352, 1946357, 1946358

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	100	99.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A80510

Included Lab Sample IDs: 1946358

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	99.5	99.5	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A80550

Included Lab Sample IDs: 1946373, 1946374

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	95.9	94.3	P/P	90 - 110
Cadmium	94.1	94.0	P/P	90 - 110
Chromium	94.4	94.2	P/P	90 - 110
Copper	96.9	95.8	P/P	90 - 110
Lead	93.4	94.4	P/P	90 - 110
Nickel	96.1	95.9	P/P	90 - 110
Silver	105	104	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A80568

Included Lab Sample IDs: 1946372

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	108	102	P/P	60 - 150

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A80627

Included Lab Sample IDs: 1946351, 1946352, 1946357, 1946358

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A80668

Included Lab Sample IDs: 1946351, 1946352, 1946357, 1946358

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	103	99.7	P/P	90 - 110
Kjeldahl Nitrogen	99.7	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

* 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							4.13	
EPA 200.7 Rev. 4.4	Calcium	103		101	103				1.40
	Iron	104		103	101	104			2.48
	Magnesium	103		103	101				2.16
	Potassium	98.8		95.4	96.7	100			2.50
	Sodium	101		97.8	98.2	102			1.90
	Zinc	99.3		98.4	95.6	97.1			1.52
EPA 200.8 Rev. 5.4	Arsenic	101		104	102	99.6			1.86
	Cadmium	97.6		103	101	98.7			1.86
	Chromium	96.6		100	97.3	95.7			1.63
	Copper	99.6		101	95.4	94.0			1.53
	Lead	91.3		92.1	92.4	91.6			0.878
	Nickel	99.9		101	98.7	95.9			2.82
	Silver	98.4		102	102	99.3			2.35
EPA 300.0 Rev. 2.1	Chloride	101		96.2	98.9			1.40	
	Sulfate	101		100	102			1.18	
EPA 350.1 Rev. 2.0	Ammonia-N	102		97.9	97.8				0.0449
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101		93.8	97.9				3.36
	Kjeldahl Nitrogen	104		101	103				0.948
EPA 353.2 Rev. 2.0	NO2NO3-N	106		103	103				0.0
	NO2NO3-N	104		101					0.251
EPA 365.1 Rev. 2.0	Total-P	102		98.5	102				3.85
	Total-P	101		103	99.4				2.93
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.9		94.9	99.9				4.10
EPA 8321B	Sucralose	73.8		107	115				6.99
SM 2120 B	Color (true)							1.54	
	Color (true)							0.778	
SM 2320 B-97	Total Alkalinity	103						0.0904	
	Total Alkalinity	103						0.331	
SM 2540 C-97	TDS							6.35	
SM 4500 F-C-97	Fluoride	102		102	103				0.463
	Fluoride	101							0.927
SM 5310 B-00	Organic Carbon	101		101	99.8				0.932
USGS O-2060-01	2,4-D	68.9	66.4	30.7	34.0		3.65		10.3
	Acetaminophen	114	125	116	121		9.48		4.53
	Bentazon	63.7	66.4	26.0	29.2		4.15		8.03
	Carbamazepine	132	140	66.3	70.9		5.82		6.41
	Diuron	107	103	44.7	48.4		4.60		7.92
	Fenuron	140	129	55.0	57.5		8.40		4.39
	Fluridone	133	143	65.0	69.3		7.15		6.37
	Imidacloprid	108	116	135	137		7.86		0.766
	Linuron	100	107	83.5	83.7		6.22		0.129
	MCP	76.5	70.8	35.7	39.0		7.70		8.88
	Primidone	99.8	106	73.0	63.4		5.86		14.1
	Triclopyr	74.0	71.2	30.4	31.1		3.92		2.37

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1946349, 1946350, 1946355, 1946356
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1946373, 1946374
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1946373, 1946374
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1946349, 1946350, 1946355, 1946356
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1946349, 1946350, 1946355, 1946356
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1946351, 1946352, 1946357, 1946358
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1946351, 1946352, 1946357, 1946358
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1946351, 1946352, 1946357, 1946358
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1946351, 1946352, 1946357, 1946358
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1946353, 1946354, 1946359, 1946360
EPA 8321B / E31780	Analysis of sucralose in water matrices by HPLC/MS/MS	1946372
SM 2120 B / E31780	True Color measured at 450 nm	1946349, 1946350, 1946355, 1946356
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1946349, 1946350, 1946355, 1946356
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1946349, 1946350, 1946355, 1946356
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1946349, 1946350, 1946355, 1946356
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1946349, 1946350, 1946355, 1946356
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1946351, 1946352, 1946357, 1946358
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1946372
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1946372

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	11/15/2017			11/15/2017 16:32	DeAsia Armster	1946349, 1946350, 1946355, 1946356
EPA 200.7 Rev. 4.4	11/15/2017	11/20/2017	Elliott D. Healy	11/21/2017	Betina Topolski	1946373, 1946374
EPA 200.8 Rev. 5.4	11/15/2017	11/20/2017	Elliott D. Healy	11/28/2017	Robert K Palmer	1946373, 1946374
EPA 300.0 Rev. 2.1	11/15/2017			11/15/2017	Julia Storbeck	1946349, 1946350, 1946355, 1946356
EPA 350.1 Rev. 2.0	11/15/2017			11/30/2017	Sofia Elnemr	1946351, 1946352, 1946357, 1946358
EPA 351.2 Rev. 2.0	11/15/2017	11/28/2017	Adrian Shelby	12/01/2017	Tanya Welborn	1946351, 1946352, 1946357, 1946358
EPA 353.2 Rev. 2.0	11/15/2017			11/22/2017	Lauren Bottorf	1946351, 1946352, 1946357
	11/15/2017			11/27/2017	Lauren Bottorf	1946358
EPA 365.1 Rev. 2.0	11/15/2017	11/17/2017	Sima Feizi	11/20/2017	Lipi Saha	1946351, 1946352
	11/15/2017	11/21/2017	Adrian Shelby	11/21/2017	Lipi Saha	1946357, 1946358
EPA 365.1 Rev. 2.0 dissolved	11/15/2017			11/15/2017 15:33	Megan Treadwell	1946353, 1946354
	11/15/2017			11/15/2017 15:35	Megan Treadwell	1946360
	11/15/2017			11/15/2017 15:37	Megan Treadwell	1946359
EPA 8321B	11/15/2017	11/28/2017	Juyoung Kim	11/29/2017	Juyoung Kim	1946372
SM 2120 B	11/15/2017			11/15/2017 15:55	Tanya Welborn	1946349
	11/15/2017			11/15/2017 15:59	Tanya Welborn	1946356
	11/15/2017			11/15/2017 16:34	Tanya Welborn	1946350, 1946355
SM 2320 B-97	11/15/2017			11/18/2017	Dale L. Simmons	1946349, 1946350, 1946355, 1946356
SM 2540 C-97	11/15/2017			11/20/2017	Yijie Li	1946349, 1946350, 1946355, 1946356
SM 2540 D-97	11/15/2017			11/20/2017	Yijie Li	1946349, 1946350, 1946355, 1946356
SM 4500 F-C-97	11/15/2017			11/18/2017	Dale L. Simmons	1946349, 1946350, 1946355, 1946356
SM 5310 B-00	11/15/2017			11/21/2017	Ping Hua	1946351, 1946352, 1946357, 1946358
USGS O-2060-01	11/15/2017	11/17/2017	Hoor Shaik	11/18/2017	Juyoung Kim	1946372