

Chemical Analysis Report

NE-DIST-2017-07-20-01

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

Event Description: **Suwannee springs**
Request ID: **RQ-2017-07-17-09**
Customer: **NE-DIST**
Project ID: **SMP**

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

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Certified by: Colin Wright, Program Administrator

Date Certified: 10-AUG-2017 12:07

A handwritten signature in black ink, appearing to read "Colin Wright", is positioned on 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: 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: Blue Spring

Collection Date/Time: 07/19/2017 12:15

Field ID: G1NE0868 07192017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1915058	EPA 180.1 Rev. 2.0	Turbidity	0.25		NTU	P328872	
	EPA 300.0 Rev. 2.1	Chloride	5.2		mg Cl/L	P328910	
		Sulfate	1.4		mg SO4/L	P328913	
	SM 2120 B	Color (true)	2.5	U	PCU	P328857	
	SM 2320 B-97	Total Alkalinity	114		mg CaCO3/L	P328972	
	SM 2540 C-97	TDS	122		mg/L	P329303	
	SM 2540 D-97	TSS	2	U	mg/L	P329315	
	SM 4500 F-C-97	Fluoride	0.064	I	mg F/L	P329086	
1915064	EPA 350.1 Rev. 2.0	Ammonia-N	0.005	I	mg N/L	P328958	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.15	I	mg N/L	P328964	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.78		mg N/L	P329050	
	EPA 365.1 Rev. 2.0	Total-P	0.033		mg P/L	P328986	
	SM 5310 B-00	Organic Carbon	0.67	I	mg C/L	P329478	
1915070	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.028		mg P/L	P329214	

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: Guaranto Springs

Collection Date/Time: 07/19/2017 10:45

Field ID: G1NE0820 07192017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1915059	EPA 180.1 Rev. 2.0	Turbidity	1.1		NTU	P328872	
	EPA 300.0 Rev. 2.1	Chloride	7.9		mg Cl/L	P328910	
		Sulfate	14		mg SO4/L	P328913	
	SM 2120 B	Color (true)	2.5	U	PCU	P328857	
	SM 2320 B-97	Total Alkalinity	184	A	mg CaCO3/L	P328972	
	SM 2540 C-97	TDS	219		mg/L	P329303	
	SM 2540 D-97	TSS	2	U	mg/L	P329315	
	SM 4500 F-C-97	Fluoride	0.089	I	mg F/L	P329086	
1915065	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P328958	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.20	I	mg N/L	P328966	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.7		mg N/L	P329050	
	EPA 365.1 Rev. 2.0	Total-P	0.018		mg P/L	P328986	
	SM 5310 B-00	Organic Carbon	1.1		mg C/L	P329478	
1915071	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.009	I	mg P/L	P329214	

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: Trail Spring

Collection Date/Time: 07/19/2017 10:10

Field ID: G1NE0815 07192017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1915060	EPA 180.1 Rev. 2.0	Turbidity	0.15		NTU	P328873	
	EPA 300.0 Rev. 2.1	Chloride	12		mg Cl/L	P328910	
		Sulfate	42		mg SO4/L	P328913	

Field ID: G1NE0815 07192017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1915060	SM 2120 B	Color (true)	2.5	U	PCU	P328857	
	SM 2320 B-97	Total Alkalinity	165		mg CaCO3/L	P328972	
	SM 2540 C-97	TDS	342	A	mg/L	P329303	
	SM 2540 D-97	TSS	2	UA	mg/L	P329315	
	SM 4500 F-C-97	Fluoride	0.064	I	mg F/L	P329086	
1915066	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P328958	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.22		mg N/L	P328966	
	EPA 353.2 Rev. 2.0	NO2NO3-N	16		mg N/L	P329050	
	EPA 365.1 Rev. 2.0	Total-P	0.052		mg P/L	P328986	
	SM 5310 B-00	Organic Carbon	0.96	I	mg C/L	P329478	
1915072	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.052		mg P/L	P329214	

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: Cow Creek @ SR 138

Collection Date/Time: 07/19/2017 09:25

Field ID: G1NE0565 07192017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1915061	EPA 180.1 Rev. 2.0	Turbidity	1.4	A	NTU	P328873	
	EPA 300.0 Rev. 2.1	Chloride	6.8		mg Cl/L	P328910	
		Sulfate	0.52		mg SO4/L	P328913	
	SM 2120 B	Color (true)	430		PCU	P328857	
	SM 2320 B-97	Total Alkalinity	93		mg CaCO3/L	P328972	
	SM 2540 C-97	TDS	172		mg/L	P329303	
	SM 2540 D-97	TSS	2	I	mg/L	P329315	
	SM 4500 F-C-97	Fluoride	0.045	I	mg F/L	P329086	
1915067	EPA 350.1 Rev. 2.0	Ammonia-N	0.021		mg N/L	P329094	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P328966	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.024		mg N/L	P329050	
	EPA 365.1 Rev. 2.0	Total-P	0.052		mg P/L	P328993	
	SM 5310 B-00	Organic Carbon	38		mg C/L	P329078	
1915073	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.031		mg P/L	P329214	

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: Cow Creek @ SR 138

Collection Date/Time: 07/19/2017 09:25

Field ID: G1NE0565 07192017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1915119	EPA 8321B	Sucralose**	0.010	U	ug/L	P328875	
	USGS O-2060-01	2,4-D	0.0020	U	ug/L	P328845	
		Diuron	8.0E-04	U	ug/L	P328845	
		Fenuron	0.0080	U	ug/L	P328845	
		Imidacloprid	8.0E-04	U	ug/L	P328845	MS
		Bentazon	8.0E-04	U	ug/L	P328845	
		Linuron	0.0040	U	ug/L	P328845	

Field ID: G1NE0565 07192017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1915119	USGS O-2060-01	Acetaminophen**	0.0080	U	ug/L	P328845	
		MCP	0.0020	U	ug/L	P328845	
		Carbamazepine**	4.0E-04	U	ug/L	P328845	
		Triclopyr**	0.0040	U	ug/L	P328845	
		Primidone**	0.0040	U	ug/L	P328845	
		Fluridone**	4.0E-04	U	ug/L	P328845	

Sample Location: Cow Creek @ 340

Collection Date/Time: 07/19/2017 09:45

Field ID: G1NE0622 07192017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1915120	EPA 8321B	Sucralose**	0.010	U	ug/L	P328875	
	USGS O-2060-01	2,4-D	0.0020	U	ug/L	P328845	
		Diuron	8.0E-04	U	ug/L	P328845	
		Fenuron	0.0080	U	ug/L	P328845	
		Imidacloprid	8.0E-04	U	ug/L	P328845	MS
		Bentazon	8.0E-04	U	ug/L	P328845	
		Linuron	0.0040	U	ug/L	P328845	
		Acetaminophen**	0.0080	U	ug/L	P328845	
		MCP	0.0020	U	ug/L	P328845	
		Carbamazepine**	4.0E-04	U	ug/L	P328845	
		Triclopyr**	0.0040	U	ug/L	P328845	
		Primidone**	0.0040	U	ug/L	P328845	
		Fluridone**	4.0E-04	U	ug/L	P328845	

Sample Location: Wacassassa R @ SR 24

Collection Date/Time: 07/19/2017 11:45

Field ID: G1NE0829 07192017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1915062	EPA 180.1 Rev. 2.0	Turbidity	1.6		NTU	P328873	
	EPA 300.0 Rev. 2.1	Chloride	7.1		mg Cl/L	P328910	
		Sulfate	1.3		mg SO4/L	P328913	
	SM 2120 B	Color (true)	73		PCU	P328857	
	SM 2320 B-97	Total Alkalinity	132		mg CaCO3/L	P328972	
	SM 2540 C-97	TDS	167		mg/L	P329304	
	SM 2540 D-97	TSS	2	I	mg/L	P329315	
	SM 4500 F-C-97	Fluoride	0.071	I	mg F/L	P329086	
1915068	EPA 350.1 Rev. 2.0	Ammonia-N	0.017		mg N/L	P329226	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.55		mg N/L	P328966	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.19		mg N/L	P329050	
	EPA 365.1 Rev. 2.0	Total-P	0.046		mg P/L	P328993	
	SM 5310 B-00	Organic Carbon	9.7		mg C/L	P329078	
1915074	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.030		mg P/L	P329214	

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: Wacassassa R @ SR 24

Collection Date/Time: 07/19/2017 11:45

Field ID: G1NE0829 07192017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1915118	EPA 8321B	Sucralose**	0.010	U	ug/L	P328875	
	USGS O-2060-01	2,4-D	0.0020	U	ug/L	P328845	
		Diuron	8.0E-04	U	ug/L	P328845	
		Fenuron	0.0080	U	ug/L	P328845	
		Imidacloprid	8.0E-04	U	ug/L	P328845	MS
		Bentazon	8.0E-04	U	ug/L	P328845	
		Linuron	0.0040	U	ug/L	P328845	
		Acetaminophen**	0.0080	U	ug/L	P328845	
		MCP	0.0020	U	ug/L	P328845	
		Carbamazepine**	4.0E-04	U	ug/L	P328845	
		Triclopyr**	0.0040	U	ug/L	P328845	
		Primidone**	0.0040	U	ug/L	P328845	
		Fluridone**	4.0E-04	U	ug/L	P328845	

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

Sample Location: Santa Fe R @ Hollingsworth Bluff

Collection Date/Time: 07/19/2017 09:05

Field ID: G1NE0624 07192017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1915063	EPA 180.1 Rev. 2.0	Turbidity	1.2		NTU	P328873	
	EPA 300.0 Rev. 2.1	Chloride	11		mg Cl/L	P328910	
		Sulfate	26		mg SO4/L	P328913	
	SM 2120 B	Color (true)	190		PCU	P328857	
	SM 2320 B-97	Total Alkalinity	138		mg CaCO3/L	P328972	
	SM 2540 C-97	TDS	231	A	mg/L	P329304	
	SM 2540 D-97	TSS	3	I	mg/L	P329315	
	SM 4500 F-C-97	Fluoride	0.14		mg F/L	P329086	
1915069	EPA 350.1 Rev. 2.0	Ammonia-N	0.009		mg N/L	P329094	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.68		mg N/L	P328966	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.83		mg N/L	P329050	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P328993	
	SM 5310 B-00	Organic Carbon	15		mg C/L	P329078	
1915075	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.087		mg P/L	P329214	
	dissolved						

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: P328872

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P328873

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P328910

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P328913

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P328958

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P329094

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P329226

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P328964

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P328966

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P329050

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P328986

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P328993

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P329214

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

Reference Method: EPA 8321B
Batch ID: P328875

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P328857

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P328972

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

Reference Method: SM 2540 C-97
Batch ID: P329303

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P329304

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P329315

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report Method Blank Results

Reference Method: SM 4500 F-C-97
Batch ID: P329086

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P329078

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

Reference Method: SM 5310 B-00
Batch ID: P329478

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

Reference Method: USGS O-2060-01
Batch ID: P328845

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	0.0080	U	ug/L
Fluridone	4.0E-04	U	ug/L
Imidacloprid	8.0E-04	U	ug/L
Linuron	0.0040	U	ug/L
MCP	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 300.0 Rev. 2.1
Batch ID: P328910

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P328913

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P328958

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P329094

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	99.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P329226

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	108		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P328964

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P328966

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	107		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P329050

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P328986

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: P328993

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	93.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P329214

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

Reference Method: EPA 8321B
Batch ID: P328875

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	87.3		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-97
Batch ID: P328972

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

Reference Method: SM 4500 F-C-97
Batch ID: P329086

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.3		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P329078

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

Reference Method: SM 5310 B-00
Batch ID: P329478

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.9		P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P328845

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	113		P	40 - 150
Acetaminophen	120		P	30 - 150
Bentazon	102		P	40 - 150
Carbamazepine	119		P	40 - 150
Diuron	135		P	40 - 150
Fenuron	127		P	40 - 150
Fluridone	110		P	40 - 150
Imidacloprid	110		P	40 - 160
Linuron	133		P	40 - 150
MCPP	112		P	40 - 150
Primidone	133		P	40 - 150
Triclopyr	88.8		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P328910

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1914809	Chloride	103		P	90 - 110
1914939	Chloride	103		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P328913

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P328913

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1914809	Sulfate	101		P	90 - 110
1914939	Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P328958

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1914798	Ammonia-N	97.2	95.5	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P329094

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1915067	Ammonia-N	102	105	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P329226

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1915499	Ammonia-N	103	104	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P328964

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1914798	Kjeldahl Nitrogen	96.1	98.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P328966

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1915162	Kjeldahl Nitrogen	105	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P329050

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1914942	NO2NO3-N	105	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P328986

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1915064	Total-P	100	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P328993

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1915068	Total-P	101	98.5	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P329214

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1914989	O-Phosphate-P	96.6	99.2	P/P	90 - 110

Reference Method: EPA 8321B
 Batch ID: P328875

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1914767	Sucralose	107	101	P/P	40 - 150

Reference Method: SM 4500 F-C-97
 Batch ID: P329086

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1915059	Fluoride	98.9	100	P/P	91 - 105

Reference Method: SM 5310 B-00
 Batch ID: P329078

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1915067	Organic Carbon	98.2		P	85 - 115

Reference Method: SM 5310 B-00
 Batch ID: P329478

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1914798	Organic Carbon	98.7	97.2	P/P	85 - 115

Reference Method: USGS O-2060-01
 Batch ID: P328845

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1914766	2,4-D	133	102	P/P	40 - 150
1914766	Acetaminophen	146	144	P/P	30 - 150
1914766	Bentazon	95.0	91.1	P/P	40 - 150
1914766	Carbamazepine	123	122	P/P	40 - 150
1914766	Diuron	124	106	P/P	40 - 150
1914766	Fenuron	104	107	P/P	40 - 150
1914766	Fluridone	112	106	P/P	40 - 150
1914766	Imidacloprid	165	143	F/P	40 - 160
1914766	Linuron	88.5	118	P/P	40 - 150
1914766	MCP	114	101	P/P	40 - 150
1914766	Primidone	128	116	P/P	40 - 150
1914766	Triclopyr	104	96.9	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P328872

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

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P328872

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1914739	Turbidity	1.87	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P328873

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915061	Turbidity	0.727	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P328910

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1914809	Chloride	1.17	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P328913

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1914809	Sulfate	1.48	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P328958

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1914798	Ammonia-N	1.60	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P329094

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915067	Ammonia-N	1.87	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P329226

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915499	Ammonia-N	0.766	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P328964

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1914798	Kjeldahl Nitrogen	1.23	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P328966

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915162	Kjeldahl Nitrogen	3.24	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P329050

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1914942	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P328986

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915064	Total-P	0.925	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P328993

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915068	Total-P	2.25	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P329214

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1914989	O-Phosphate-P	1.34	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P328875

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1914767	Sucralose	5.95	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P328857

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1914940	Color (true)	0.621	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P328972

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915059	Total Alkalinity	0.209	Sample	P	0 - 4.8

Quality Assurance Report Precision

Reference Method: SM 2540 C-97
 Batch ID: P329303

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915060	TDS	3.22	Sample	P	0 - 10

Reference Method: SM 2540 C-97
 Batch ID: P329304

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915063	TDS	0.0	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
 Batch ID: P329086

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915059	Fluoride	1.05	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
 Batch ID: P329078

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915067	Organic Carbon	2.38	Spike	P	0 - 20

Reference Method: SM 5310 B-00
 Batch ID: P329478

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1914798	Organic Carbon	0.884	Spike	P	0 - 20

Reference Method: USGS O-2060-01
 Batch ID: P328845

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1914766	2,4-D	25.8	Spike	P	0 - 30
1914766	Acetaminophen	1.21	Spike	P	0 - 30
1914766	Bentazon	4.17	Spike	P	0 - 30
1914766	Carbamazepine	0.933	Spike	P	0 - 30
1914766	Diuron	15.8	Spike	P	0 - 30
1914766	Fenuron	2.84	Spike	P	0 - 30
1914766	Fluridone	5.02	Spike	P	0 - 30
1914766	Imidacloprid	14.3	Spike	P	0 - 30
1914766	Linuron	28.7	Spike	P	0 - 30
1914766	MCP	11.5	Spike	P	0 - 30
1914766	Primidone	9.22	Spike	P	0 - 30
1914766	Triclopyr	7.14	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: 1915118
Field Sample ID: G1NE0829 07192017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	104	P	40 - 160
USGS O-2060-01	2,4-D-d3	142	P	40 - 160
USGS O-2060-01	Acetaminophen-d4	130	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	132	P	30 - 160
USGS O-2060-01	Diuron-d6	105	P	30 - 160
USGS O-2060-01	Primidone-d5	120	P	30 - 160

Lab Sample ID: 1915119
Field Sample ID: G1NE0565 07192017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	110	P	40 - 160
USGS O-2060-01	2,4-D-d3	136	P	40 - 160
USGS O-2060-01	Acetaminophen-d4	130	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	79.4	P	30 - 160
USGS O-2060-01	Diuron-d6	65.8	P	30 - 160
USGS O-2060-01	Primidone-d5	81.7	P	30 - 160

Lab Sample ID: 1915120
Field Sample ID: G1NE0622 07192017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	96.5	P	40 - 160
USGS O-2060-01	2,4-D-d3	132	P	40 - 160
USGS O-2060-01	Acetaminophen-d4	144	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	83.1	P	30 - 160
USGS O-2060-01	Diuron-d6	60.4	P	30 - 160
USGS O-2060-01	Primidone-d5	95.9	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A77800
Included Lab Sample IDs: 1915058, 1915059, 1915060, 1915061, 1915062, 1915063

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	102	104	P/P	90 - 110
Chloride	104	103	P/P	90 - 110
Sulfate	103	104	P/P	90 - 110
Sulfate	104	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A77845
Included Lab Sample IDs: 1915070, 1915071, 1915072, 1915073, 1915074, 1915075

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	96.2	96.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B

Run ID: A77847

Included Lab Sample IDs: 1915058, 1915059, 1915060, 1915061, 1915062, 1915063

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	102	101	P/P	85 - 115
Color (true)	102	102	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A77849

Included Lab Sample IDs: 1915058, 1915059, 1915060, 1915061, 1915062, 1915063

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	98.5	99.5	P/P	95 - 105
Turbidity	99.5	99.0	P/P	95 - 105

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A77874

Included Lab Sample IDs: 1915064, 1915065, 1915066

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.1	97.9	P/P	90 - 110
Ammonia-N	100	99.1	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A77884

Included Lab Sample IDs: 1915058, 1915059, 1915060, 1915061, 1915062, 1915063

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	100	102	P/P	90 - 110
Total Alkalinity	102	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A77923

Included Lab Sample IDs: 1915064, 1915065, 1915066, 1915067, 1915068, 1915069

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	104	104	P/P	90 - 110
NO2NO3-N	104	104	P/P	90 - 110
NO2NO3-N	104	105	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A77939

Included Lab Sample IDs: 1915067, 1915068, 1915069

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	99.7	101	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A77941

Included Lab Sample IDs: 1915058, 1915059, 1915060, 1915061, 1915062, 1915063

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	103	P/P	90 - 110
Fluoride	100	100	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A77945

Included Lab Sample IDs: 1915067, 1915069

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A77953

Included Lab Sample IDs: 1915066, 1915067, 1915069

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	99.0	P/P	90 - 110
Total-P	99.3	99.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A77956

Included Lab Sample IDs: 1915064, 1915065, 1915068

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	96.8	98.0	P/P	90 - 110
Total-P	98.0	97.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A77987

Included Lab Sample IDs: 1915064, 1915065, 1915066, 1915067, 1915068, 1915069

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	106	106	P/P	90 - 110
Kjeldahl Nitrogen	108	107	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A77993

Included Lab Sample IDs: 1915068

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

Reference Method: EPA 8321B

Run ID: A78008

Included Lab Sample IDs: 1915118, 1915119, 1915120

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	77.0	77.1	P/P	60 - 160

Reference Method: SM 5310 B-00

Run ID: A78087

Included Lab Sample IDs: 1915064, 1915065, 1915066

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.2	97.2	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: USGS O-2060-01

Run ID: A78113

Included Lab Sample IDs: 1915118, 1915119, 1915120

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	109	130	P/P	50 - 150
2,4-D	130	115	P/P	50 - 150
Acetaminophen	122	120	P/P	60 - 150
Acetaminophen	134	122	P/P	60 - 150
Bentazon	105	119	P/P	50 - 150
Bentazon	119	105	P/P	50 - 150
Carbamazepine	111	117	P/P	60 - 150
Carbamazepine	117	111	P/P	60 - 150
Diuron	108	131	P/P	60 - 150
Diuron	117	108	P/P	60 - 150
Fenuron	118	119	P/P	60 - 150
Fenuron	120	118	P/P	60 - 150
Fluridone	109	113	P/P	60 - 160
Fluridone	113	114	P/P	60 - 160
Imidacloprid	104	108	P/P	60 - 150
Imidacloprid	115	104	P/P	60 - 150
Linuron	109	119	P/P	60 - 150
Linuron	119	109	P/P	60 - 150
MCPP	111	112	P/P	50 - 150
MCPP	112	112	P/P	50 - 150
Primidone	126	121	P/P	60 - 150
Primidone	90.9	126	P/P	60 - 150
Triclopyr	106	95.3	P/P	50 - 150
Triclopyr	97.2	106	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				1.87	
	Turbidity				0.727	
EPA 300.0 Rev. 2.1	Chloride	103	103 103		1.17	
	Sulfate	103	101 101		1.48	
EPA 350.1 Rev. 2.0	Ammonia-N	102	97.2 95.5			1.60
	Ammonia-N	99.0	102 105			1.87
	Ammonia-N	108	103 104			0.766
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	106	96.1 98.5			1.23
	Kjeldahl Nitrogen	107	105 102			3.24
EPA 353.2 Rev. 2.0	NO2NO3-N	106	105 105			0.0
EPA 365.1 Rev. 2.0	Total-P	102	100 101			0.925
	Total-P	93.5	101 98.5			2.25
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101	96.6 99.2			1.34
EPA 8321B	Sucralose	87.3	107 101			5.95
SM 2120 B	Color (true)				0.621	
SM 2320 B-97	Total Alkalinity	103			0.209	

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
SM 2540 C-97	TDS				3.22	
	TDS				0.0	
SM 4500 F-C-97	Fluoride	98.3	98.9	100		1.05
SM 5310 B-00	Organic Carbon	102	98.2			2.38
	Organic Carbon	96.9	98.7	97.2		0.884
USGS O-2060-01	2,4-D	113	133	102		25.8
	Acetaminophen	120	146	144		1.21
	Bentazon	102	95.0	91.1		4.17
	Carbamazepine	119	123	122		0.933
	Diuron	135	124	106		15.8
	Fenuron	127	104	107		2.84
	Fluridone	110	112	106		5.02
	Imidacloprid	110	165	143		14.3
	Linuron	133	88.5	118		28.7
	MCP	112	114	101		11.5
	Primidone	133	128	116		9.22
	Triclopyr	88.8	104	96.9		7.14

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1915058, 1915059, 1915060, 1915061, 1915062, 1915063
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1915058, 1915059, 1915060, 1915061, 1915062, 1915063
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1915058, 1915059, 1915060, 1915061, 1915062, 1915063
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1915064, 1915065, 1915066, 1915067, 1915068, 1915069
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1915064, 1915065, 1915066, 1915067, 1915068, 1915069
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1915064, 1915065, 1915066, 1915067, 1915068, 1915069
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1915064, 1915065, 1915066, 1915067, 1915068, 1915069
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1915070, 1915071, 1915072, 1915073, 1915074, 1915075
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	1915118, 1915119, 1915120
SM 2120 B / E31780	True Color measured at 450 nm	1915058, 1915059, 1915060, 1915061, 1915062, 1915063
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1915058, 1915059, 1915060, 1915061, 1915062, 1915063
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1915058, 1915059, 1915060, 1915061, 1915062, 1915063
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1915058, 1915059, 1915060, 1915061, 1915062, 1915063
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1915058, 1915059, 1915060, 1915061, 1915062, 1915063
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1915064, 1915065, 1915066, 1915067, 1915068, 1915069
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1915118, 1915119, 1915120
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1915118, 1915119, 1915120

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	07/20/2017			07/20/2017 15:32	DeAsia Armster	1915058, 1915059, 1915060, 1915061, 1915062, 1915063
EPA 300.0 Rev. 2.1	07/20/2017			07/21/2017	Julia Storbeck	1915058, 1915059, 1915060, 1915061, 1915062, 1915063
EPA 350.1 Rev. 2.0	07/20/2017			07/21/2017	Sofia Elnemr	1915064, 1915065, 1915066
	07/20/2017			07/25/2017	Sofia Elnemr	1915067, 1915069
	07/20/2017			07/26/2017	Sofia Elnemr	1915068
EPA 351.2 Rev. 2.0	07/20/2017	07/24/2017	Adrian Shelby	07/27/2017	Joseph Suarez	1915064, 1915065, 1915066, 1915067, 1915068, 1915069
EPA 353.2 Rev. 2.0	07/20/2017			07/25/2017	Beverly Y. Sanders	1915064, 1915065, 1915066, 1915067, 1915068, 1915069
EPA 365.1 Rev. 2.0	07/20/2017	07/24/2017	Vijayalakshmi Reddy	07/26/2017	Lipi Saha	1915064, 1915065, 1915066, 1915067, 1915068, 1915069
EPA 365.1 Rev. 2.0 dissolved	07/20/2017			07/20/2017 12:23	Ping Hua	1915070
	07/20/2017			07/20/2017 12:24	Ping Hua	1915071
	07/20/2017			07/20/2017 12:25	Ping Hua	1915072
	07/20/2017			07/20/2017 12:26	Ping Hua	1915073
	07/20/2017			07/20/2017 12:27	Ping Hua	1915074
	07/20/2017			07/20/2017 12:28	Ping Hua	1915075
EPA 8321B	07/20/2017	07/26/2017	Julie Michelle Frank	07/27/2017	Mohammad Ghaffari	1915118, 1915119, 1915120
SM 2120 B	07/20/2017			07/20/2017 15:02	Tanya Welborn	1915058
	07/20/2017			07/20/2017 15:03	Tanya Welborn	1915059, 1915060
	07/20/2017			07/20/2017 15:05	Tanya Welborn	1915062
	07/20/2017			07/20/2017 15:16	Tanya Welborn	1915061, 1915063
SM 2320 B-97	07/20/2017			07/22/2017	Dale L. Simmons	1915058, 1915059, 1915060, 1915061, 1915062, 1915063
SM 2540 C-97	07/20/2017			07/24/2017	DeAsia Armster	1915058, 1915059, 1915060, 1915061, 1915062, 1915063
SM 2540 D-97	07/20/2017			07/24/2017	DeAsia Armster	1915058, 1915059, 1915060, 1915061, 1915062, 1915063
SM 4500 F-C-97	07/20/2017			07/26/2017	Dale L. Simmons	1915058, 1915059, 1915060, 1915061, 1915062, 1915063
SM 5310 B-00	07/20/2017			07/24/2017	Sofia Elnemr	1915067, 1915068, 1915069
	07/20/2017			07/31/2017	Sofia Elnemr	1915064, 1915065, 1915066
USGS O-2060-01	07/20/2017	07/24/2017	Hoor Shaik	07/30/2017	Juyoung Kim	1915118
	07/20/2017	07/24/2017	Hoor Shaik	07/31/2017	Juyoung Kim	1915119, 1915120