Chemical Analysis Report

NE-DIST-2017-06-08-03

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

Event Description: **Suwannee North 2**
Request ID: **RQ-2017-06-05-24**
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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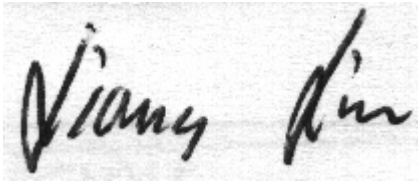
Certified by: Liang Lin, Environmental Administrator

Date Certified: 13-JUL-2017 10:11



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: Falling Creek @ US 441 **Collection Date/Time: 06/07/2017 08:50**

Field ID: G1NE0279 06072017 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1904470	EPA 180.1 Rev. 2.0	Turbidity	11	A	NTU	P326478	
	EPA 300.0 Rev. 2.1	Chloride	6.9		mg Cl/L	P326949	
		Sulfate	2.0		mg SO4/L	P326953	
	SM 2120 B	Color (true)	360		PCU	P326475	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P326601	
	SM 2540 C-97	TDS	69		mg/L	P326998	
	SM 2540 D-97	TSS	8	I	mg/L	P326844	
	SM 4500 F-C-97	Fluoride	0.058	I	mg F/L	P326605	
1904473	EPA 350.1 Rev. 2.0	Ammonia-N	0.020		mg N/L	P326467	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P326562	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.020		mg N/L	P326525	
	EPA 365.1 Rev. 2.0	Total-P	0.17		mg P/L	P326620	
	SM 5310 B-00	Organic Carbon	30		mg C/L	P326722	
1904476	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.12		mg P/L	P326479	
1904522	EPA 8321B	Sucralose**	0.089		ug/L	P326509	
	USGS O-2060-01	2,4-D	8.0E-04	U	ug/L	P326471	
		Diuron	8.0E-04	U	ug/L	P326471	
		Fenuron	0.0080	U	ug/L	P326471	
		Imidacloprid	8.0E-04	U	ug/L	P326471	MS
		Bentazon	8.0E-04	U	ug/L	P326471	MS
		Linuron	0.0040	U	ug/L	P326471	
		Acetaminophen**	0.0080	UJ	ug/L	P326471	SUR
		MCPP	0.0020	U	ug/L	P326471	
		Carbamazepine**	4.0E-04	U	ug/L	P326471	
		Triclopyr**	0.0040	U	ug/L	P326471	
		Primidone**	0.0040	U	ug/L	P326471	
		Fluridone**	4.0E-04	U	ug/L	P326471	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
USGS O-2060-01: Refer to the narrative for an explanation of QC Codes. The acetaminophen-d4 surrogate spike recovery exceeded the control limits.

Sample Location: Deep Creek @ US 441 **Collection Date/Time: 06/07/2017 09:20**

Field ID: G1NE0267 06072017 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1904471	EPA 180.1 Rev. 2.0	Turbidity	3.0		NTU	P326478	
	EPA 300.0 Rev. 2.1	Chloride	10		mg Cl/L	P326949	
		Sulfate	4.9		mg SO4/L	P326953	
	SM 2120 B	Color (true)	130		PCU	P326475	
	SM 2320 B-97	Total Alkalinity	68	A	mg CaCO3/L	P326602	
	SM 2540 C-97	TDS	120		mg/L	P326998	
	SM 2540 D-97	TSS	3	I	mg/L	P326844	
	SM 4500 F-C-97	Fluoride	0.17		mg F/L	P326606	
1904474	EPA 350.1 Rev. 2.0	Ammonia-N	0.017		mg N/L	P326467	

Field ID: G1NE0267 06072017 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1904474	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.57		mg N/L	P326562	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.063		mg N/L	P326525	
	EPA 365.1 Rev. 2.0	Total-P	0.27		mg P/L	P326620	
	SM 5310 B-00	Organic Carbon	12		mg C/L	P326722	
1904477	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.22		mg P/L	P326479	
1904523	EPA 8321B	Sucralose**	0.025	I	ug/L	P326509	
	USGS O-2060-01	2,4-D	0.0016	I	ug/L	P326471	
		Diuron	0.0030	I	ug/L	P326471	
		Fenuron	0.0080	U	ug/L	P326471	
		Imidacloprid	8.0E-04	U	ug/L	P326471	MS
		Bentazon	8.0E-04	U	ug/L	P326471	MS
		Linuron	0.0040	U	ug/L	P326471	
		Acetaminophen**	0.0080	U	ug/L	P326471	
		MCPP	0.0020	U	ug/L	P326471	
		Carbamazepine**	4.0E-04	U	ug/L	P326471	
		Triclopyr**	0.0040	U	ug/L	P326471	
		Primidone**	0.0040	U	ug/L	P326471	
		Fluridone**	4.0E-04	U	ug/L	P326471	

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: Little Creek @ US 441 **Collection Date/Time: 06/07/2017 09:40**

Field ID: G1NE0251 06072017 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1904479	EPA 180.1 Rev. 2.0	Turbidity	1.3		NTU	P326478	
	EPA 300.0 Rev. 2.1	Chloride	5.7		mg Cl/L	P326949	
		Sulfate	6.2		mg SO4/L	P326953	
	SM 2120 B	Color (true)	160	A	PCU	P326475	
	SM 2320 B-97	Total Alkalinity	28		mg CaCO3/L	P326601	
	SM 2540 C-97	TDS	78		mg/L	P326998	
	SM 2540 D-97	TSS	2	U	mg/L	P326844	
	SM 4500 F-C-97	Fluoride	0.23		mg F/L	P326605	
1904480	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P326467	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.56		mg N/L	P326484	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.007	I	mg N/L	P326525	
	EPA 365.1 Rev. 2.0	Total-P	0.61		mg P/L	P326620	
	SM 5310 B-00	Organic Carbon	15		mg C/L	P326722	
1904481	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.56		mg P/L	P326479	

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: Little Creek @ US 441 **Collection Date/Time: 06/07/2017 09:40**

Field ID: G1NE0251 06072017 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes

Field ID: G1NE0251 06072017 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1904525	EPA 8321B	Sucralose**	0.010	U	ug/L	P326509	
	USGS O-2060-01	2,4-D	0.0018	I	ug/L	P326471	
		Diuron	8.0E-04	U	ug/L	P326471	
		Fenuron	0.0080	U	ug/L	P326471	
		Imidacloprid	8.0E-04	U	ug/L	P326471	MS
		Bentazon	8.0E-04	U	ug/L	P326471	MS
		Linuron	0.0040	U	ug/L	P326471	
		Acetaminophen**	0.0080	U	ug/L	P326471	
		MCPP	0.0020	U	ug/L	P326471	
		Carbamazepine**	4.0E-04	U	ug/L	P326471	
		Triclopyr**	0.0040	U	ug/L	P326471	
		Primidone**	0.0040	U	ug/L	P326471	
		Fluridone**	4.0E-04	U	ug/L	P326471	

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

Sample Location: Hunters Creek @ SR 135 **Collection Date/Time: 06/07/2017 10:05**

Field ID: G1NE0384 06072017 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1904526	EPA 8321B	Sucralose**	0.010	U	ug/L	P326509	
	USGS O-2060-01	2,4-D	8.0E-04	U	ug/L	P326471	
		Diuron	8.0E-04	U	ug/L	P326471	
		Fenuron	0.018	I	ug/L	P326471	
		Imidacloprid	8.0E-04	U	ug/L	P326471	MS
		Bentazon	8.0E-04	U	ug/L	P326471	MS
		Linuron	0.0040	U	ug/L	P326471	
		Acetaminophen**	0.0080	U	ug/L	P326471	
		MCPP	0.0020	U	ug/L	P326471	
		Carbamazepine**	4.0E-04	U	ug/L	P326471	
		Triclopyr**	0.0040	U	ug/L	P326471	
		Primidone**	0.0040	U	ug/L	P326471	
		Fluridone**	4.0E-04	U	ug/L	P326471	

Sample Location: Swift Creek @ CR 25A **Collection Date/Time: 06/07/2017 10:45**

Field ID: G1NE0327 06072017 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1904527	EPA 8321B	Sucralose**	0.010	U	ug/L	P326509	
	USGS O-2060-01	2,4-D	8.0E-04	I	ug/L	P326471	
		Diuron	0.0080		ug/L	P326471	
		Fenuron	0.0080	U	ug/L	P326471	
		Imidacloprid	8.0E-04	U	ug/L	P326471	MS
		Bentazon	8.0E-04	U	ug/L	P326471	MS
		Linuron	0.0040	U	ug/L	P326471	
		Acetaminophen**	0.0080	U	ug/L	P326471	

Field ID: G1NE0327 06072017 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1904527	USGS O-2060-01	MCPP	0.0020	U	ug/L	P326471	
		Carbamazepine**	4.0E-04	U	ug/L	P326471	
		Triclopyr**	0.0040	U	ug/L	P326471	
		Primidone**	0.0040	U	ug/L	P326471	
		Fluridone**	4.0E-04	U	ug/L	P326471	

Sample Location: Camp Branch @ CR 25A **Collection Date/Time: 06/07/2017 11:05**

Field ID: G1NE0269 06072017 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1904528	EPA 8321B	Sucralose**	0.010	U	ug/L	P326509	
	USGS O-2060-01	2,4-D	0.0011	I	ug/L	P326471	
		Diuron	8.0E-04	U	ug/L	P326471	
		Fenuron	0.0080	U	ug/L	P326471	
		Imidacloprid	8.0E-04	U	ug/L	P326471	MS
		Bentazon	8.0E-04	U	ug/L	P326471	MS
		Linuron	0.0040	U	ug/L	P326471	
		Acetaminophen**	0.0080	U	ug/L	P326471	
		MCPP	0.0020	U	ug/L	P326471	
		Carbamazepine**	4.0E-04	U	ug/L	P326471	
		Triclopyr**	0.0040	U	ug/L	P326471	
		Primidone**	0.0040	U	ug/L	P326471	
		Fluridone**	0.0044		ug/L	P326471	

Sample Location: Field Blank **Collection Date/Time: 06/07/2017 11:10**

Field ID: Field Blank Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1904472	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P326478	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P326949	
		Sulfate	0.20	U	mg SO4/L	P326953	
	SM 2120 B	Color (true)	2.5	U	PCU	P326475	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P326601	
	SM 2540 C-97	TDS	15	U	mg/L	P326998	
	SM 2540 D-97	TSS	2	U	mg/L	P326844	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P326605	
1904475	EPA 350.1 Rev. 2.0	Ammonia-N	0.007		mg N/L	P326467	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P326562	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P326525	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P326620	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P326722	
1904478	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P326479	
1904524	EPA 8321B	Sucralose**	0.010	U	ug/L	P326509	
	USGS O-2060-01	2,4-D	8.0E-04	U	ug/L	P326471	
		Diuron	8.0E-04	U	ug/L	P326471	

Field ID: Field Blank Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1904524	USGS O-2060-01	Fenuron	0.0080	U	ug/L	P326471	
		Imidacloprid	8.0E-04	U	ug/L	P326471	MS
		Bentazon	8.0E-04	U	ug/L	P326471	MS
		Linuron	0.0040	U	ug/L	P326471	
		Acetaminophen**	0.0080	U	ug/L	P326471	
		MCPP	0.0020	U	ug/L	P326471	
		Carbamazepine**	4.0E-04	U	ug/L	P326471	
		Triclopyr**	0.0040	U	ug/L	P326471	
		Primidone**	0.0040	U	ug/L	P326471	
		Fluridone**	4.0E-04	U	ug/L	P326471	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 350.1 Rev. 2.0: The result was confirmed on 06/08/2017.

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P326478

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P326949

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P326953

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P326467

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326484

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326562

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: P326525

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P326620

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P326479

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

Reference Method: EPA 8321B
Batch ID: P326509

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P326475

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P326601

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

Reference Method: SM 2320 B-97
Batch ID: P326602

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

Reference Method: SM 2540 C-97
Batch ID: P326998

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P326844

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report
Method Blank Results

Reference Method: SM 4500 F-C-97
Batch ID: P326605

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P326606

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P326722

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

Reference Method: USGS O-2060-01
Batch ID: P326471

Component	Result	Code	Units
2,4-D	8.0E-04	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	0.0040	U	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 300.0 Rev. 2.1
Batch ID: P326949

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P326953

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P326467

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 351.2 Rev. 2.0
Batch ID: P326484

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326562

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P326525

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: P326620

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: P326479

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	97.3		P	90 - 110

Reference Method: EPA 8321B
Batch ID: P326509

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	77.2		P	40 - 150

Reference Method: SM 2320 B-97
Batch ID: P326601

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

Reference Method: SM 2320 B-97
Batch ID: P326602

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

Reference Method: SM 4500 F-C-97
Batch ID: P326605

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.9		P	92 - 103

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P326606

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.9		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P326722

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	92.4		P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P326471

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	90.0		P	40 - 140
Acetaminophen	70.4		P	40 - 140
Bentazon	77.4		P	40 - 140
Carbamazepine	132		P	40 - 140
Diuron	120		P	40 - 140
Fenuron	113		P	40 - 140
Fluridone	115		P	40 - 140
Imidacloprid	110		P	40 - 160
Linuron	119		P	40 - 140
MCPP	95.6		P	40 - 140
Primidone	110		P	40 - 140
Triclopyr	94.2		P	40 - 140

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P326949

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1904366	Chloride	99.8		P	90 - 110
1904471	Chloride	108		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P326953

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1904366	Sulfate	101		P	90 - 110
1904471	Sulfate	108		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P326467

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1904473	Ammonia-N	101	101	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326484

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1904224	Kjeldahl Nitrogen	93.6	95.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326562

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1904762	Kjeldahl Nitrogen	93.0	94.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P326525

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1904367	NO2NO3-N	101	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P326620

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1904373	Total-P	99.4	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P326479

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1904382	O-Phosphate-P	98.8	99.3	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P326509

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1904523	Sucralose	76.5	76.4	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P326605

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1904305	Fluoride	98.2	98.8	P/P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P326606

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1904471	Fluoride	98.3	99.7	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P326722

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1904351	Organic Carbon	93.8	94.0	P/P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: USGS O-2060-01
Batch ID: P326471

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1904436	2,4-D	93.2	87.4	P/P	40 - 140
1904436	Acetaminophen	99.2	115	P/P	40 - 140
1904436	Bentazon	32.4	29.6	F/F	40 - 140
1904436	Carbamazepine	116	111	P/P	40 - 140
1904436	Diuron	88.5	79.9	P/P	40 - 140
1904436	Fenuron	86.9	83.2	P/P	40 - 140
1904436	Fluridone	79.1	71.8	P/P	40 - 140
1904436	Imidacloprid	197	187	F/F	40 - 160
1904436	Linuron	112	98.7	P/P	40 - 140
1904436	MCPP	71.4	65.2	P/P	40 - 140
1904436	Primidone	98.8	95.1	P/P	40 - 140
1904436	Triclopyr	75.2	72.4	P/P	40 - 140

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P326478

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904470	Turbidity	3.64	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P326949

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904366	Chloride	2.45	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P326953

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904366	Sulfate	1.75	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P326467

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904473	Ammonia-N	0.201	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326484

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904224	Kjeldahl Nitrogen	0.903	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326562

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904762	Kjeldahl Nitrogen	1.37	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P326525

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904367	NO2NO3-N	1.31	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P326620

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904373	Total-P	2.49	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P326479

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904382	O-Phosphate-P	0.505	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P326509

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904523	Sucralose	0.193	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P326475

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904479	Color (true)	1.87	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P326601

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904305	Total Alkalinity	1.00	Sample	P	0 - 4.8

Reference Method: SM 2320 B-97
Batch ID: P326602

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904471	Total Alkalinity	0.233	Sample	P	0 - 4.8

Quality Assurance Report
Precision

Reference Method: SM 2540 C-97
Batch ID: P326998

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904350	TDS	1.34	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P326605

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904305	Fluoride	0.500	Spike	P	0 - 3.0

Reference Method: SM 4500 F-C-97
Batch ID: P326606

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904471	Fluoride	1.00	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P326722

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904351	Organic Carbon	0.139	Spike	P	0 - 20

Reference Method: USGS O-2060-01
Batch ID: P326471

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904436	2,4-D	5.69	Spike	P	0 - 30
1904436	Acetaminophen	14.5	Spike	P	0 - 30
1904436	Bentazon	6.33	Spike	P	0 - 30
1904436	Carbamazepine	4.41	Spike	P	0 - 30
1904436	Diuron	9.47	Spike	P	0 - 30
1904436	Fenuron	4.33	Spike	P	0 - 30
1904436	Fluridone	8.95	Spike	P	0 - 30
1904436	Imidacloprid	4.13	Spike	P	0 - 30
1904436	Linuron	12.4	Spike	P	0 - 30
1904436	MCPP	9.08	Spike	P	0 - 30
1904436	Primidone	3.80	Spike	P	0 - 30
1904436	Triclopyr	3.79	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

Quality Assurance Report
Surrogates

Lab Sample ID: 1904522
Field Sample ID: G1NE0279 06072017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	138	P	40 - 160
USGS O-2060-01	2,4-D-d3	90.0	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	176	F	30 - 150
USGS O-2060-01	Carbamazepine-d10	106	P	30 - 160
USGS O-2060-01	Diuron-d6	74.3	P	30 - 160
USGS O-2060-01	Primidone-d5	76.2	P	30 - 150

Lab Sample ID: 1904523
Field Sample ID: G1NE0267 06072017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	96.1	P	40 - 160
USGS O-2060-01	2,4-D-d3	107	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	121	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	132	P	30 - 160
USGS O-2060-01	Diuron-d6	96.9	P	30 - 160
USGS O-2060-01	Primidone-d5	103	P	30 - 150

Lab Sample ID: 1904524
Field Sample ID: Field Blank

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	106	P	40 - 160
USGS O-2060-01	2,4-D-d3	90.8	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	71.8	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	134	P	30 - 160
USGS O-2060-01	Diuron-d6	119	P	30 - 160
USGS O-2060-01	Primidone-d5	114	P	30 - 150

Lab Sample ID: 1904525
Field Sample ID: G1NE0251 06072017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	96.0	P	40 - 160
USGS O-2060-01	2,4-D-d3	96.3	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	106	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	126	P	30 - 160
USGS O-2060-01	Diuron-d6	86.1	P	30 - 160
USGS O-2060-01	Primidone-d5	102	P	30 - 150

Lab Sample ID: 1904526
Field Sample ID: G1NE0384 06072017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	90.5	P	40 - 160
USGS O-2060-01	2,4-D-d3	92.0	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	118	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	122	P	30 - 160
USGS O-2060-01	Diuron-d6	84.1	P	30 - 160
USGS O-2060-01	Primidone-d5	96.9	P	30 - 150

Quality Assurance Report
Surrogates

Lab Sample ID: 1904527
Field Sample ID: G1NE0327 06072017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	77.5	P	40 - 160
USGS O-2060-01	2,4-D-d3	102	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	143	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	115	P	30 - 160
USGS O-2060-01	Diuron-d6	78.7	P	30 - 160
USGS O-2060-01	Primidone-d5	83.8	P	30 - 150

Lab Sample ID: 1904528
Field Sample ID: G1NE0269 06072017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	92.5	P	40 - 160
USGS O-2060-01	2,4-D-d3	86.6	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	113	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	100	P	30 - 160
USGS O-2060-01	Diuron-d6	69.5	P	30 - 160
USGS O-2060-01	Primidone-d5	90.1	P	30 - 150

Quality Assurance Report
Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A76961
Included Lab Sample IDs: 1904473, 1904474, 1904475, 1904480

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

Reference Method: SM 2120 B
Run ID: A76963
Included Lab Sample IDs: 1904470, 1904471, 1904472, 1904479

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

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A76964
Included Lab Sample IDs: 1904470, 1904471, 1904472, 1904479

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A76965
Included Lab Sample IDs: 1904476, 1904477, 1904478, 1904481

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A76981
Included Lab Sample IDs: 1904473, 1904474, 1904475, 1904480

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	101	102	P/P	90 - 110

Reference Method: SM 2320 B-97
Run ID: A77003
Included Lab Sample IDs: 1904470, 1904471, 1904472, 1904479

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: A77003
Included Lab Sample IDs: 1904470, 1904471, 1904472, 1904479

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	98.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A77035
Included Lab Sample IDs: 1904473, 1904474, 1904480

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A77040
Included Lab Sample IDs: 1904475

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A77042
Included Lab Sample IDs: 1904480

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	99.9	96.4	P/P	90 - 110

Reference Method: SM 5310 B-00
Run ID: A77054
Included Lab Sample IDs: 1904473, 1904474, 1904475, 1904480

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	92.6	92.6	P/P	90 - 110
Organic Carbon	92.6	94.8	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A77076
Included Lab Sample IDs: 1904470, 1904471, 1904472, 1904479

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A77076
Included Lab Sample IDs: 1904470, 1904471, 1904472, 1904479

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	102	103	P/P	90 - 110
Chloride	97.2	100	P/P	90 - 110
Sulfate	103	91.7	P/P	90 - 110
Sulfate	107	103	P/P	90 - 110
Sulfate	98.5	107	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A77114
Included Lab Sample IDs: 1904473, 1904474

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	95.4	97.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A77117
Included Lab Sample IDs: 1904475

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	98.0	P/P	90 - 110

Reference Method: USGS O-2060-01
Run ID: A77208
Included Lab Sample IDs: 1904522, 1904523, 1904524, 1904525, 1904526, 1904527, 1904528

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	81.6	88.4	P/P	50 - 150
2,4-D	90.8	81.6	P/P	50 - 150
Acetaminophen	102	101	P/P	60 - 150
Acetaminophen	102	102	P/P	60 - 150
Bentazon	98.0	98.8	P/P	50 - 150
Bentazon	98.8	97.6	P/P	50 - 150
Carbamazepine	115	115	P/P	60 - 150
Carbamazepine	117	115	P/P	60 - 150
Diuron	104	99.8	P/P	60 - 150
Diuron	99.8	103	P/P	60 - 150
Fenuron	103	107	P/P	60 - 150
Fenuron	107	103	P/P	60 - 150
Fluridone	104	108	P/P	60 - 160
Fluridone	108	109	P/P	60 - 160
Imidacloprid	106	97.4	P/P	60 - 150
Imidacloprid	97.4	98.2	P/P	60 - 150
Linuron	109	97.2	P/P	60 - 150
Linuron	97.2	107	P/P	60 - 150
MCPP	83.2	80.8	P/P	50 - 150
MCPP	84.4	83.2	P/P	50 - 150
Primidone	103	95.5	P/P	60 - 150
Primidone	95.5	91.0	P/P	60 - 150
Triclopyr	83.6	87.2	P/P	50 - 150
Triclopyr	87.2	81.2	P/P	50 - 150

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A77276
Included Lab Sample IDs: 1904522, 1904523, 1904524, 1904525, 1904526, 1904527, 1904528

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	116	78.9	P/P	60 - 160
Sucralose	152	94.2	P/P	60 - 160
Sucralose	95.0	131	P/P	60 - 160

* Pass/Fail determinations are made for each bracketing calibration verification check.
Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.
Where they are different, both control limits are provided.

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 180.1 Rev. 2.0	Turbidity					3.64	
EPA 300.0 Rev. 2.1	Chloride	98.0	99.8	108		2.45	
	Sulfate	98.4	101	108		1.75	
EPA 350.1 Rev. 2.0	Ammonia-N	102	101	101			0.201
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103	93.6	95.2			0.903
	Kjeldahl Nitrogen	102	93.0	94.5			1.37
EPA 353.2 Rev. 2.0	NO2NO3-N	104	101	103			1.31
EPA 365.1 Rev. 2.0	Total-P	101	99.4	103			2.49
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.3	98.8	99.3			0.505
EPA 8321B	Sucralose	77.2	76.5	76.4			0.193
SM 2120 B	Color (true)					1.87	
SM 2320 B-97	Total Alkalinity	104				1.00	
	Total Alkalinity	104				0.233	
SM 2540 C-97	TDS					1.34	
SM 4500 F-C-97	Fluoride	97.9	98.2	98.8			0.500
	Fluoride	97.9	98.3	99.7			1.00
SM 5310 B-00	Organic Carbon	92.4	93.8	94.0			0.139
USGS O-2060-01	2,4-D	90.0	93.2	87.4			5.69
	Acetaminophen	70.4	99.2	115			14.5
	Bentazon	77.4	32.4	29.6			6.33
	Carbamazepine	132	116	111			4.41
	Diuron	120	88.5	79.9			9.47
	Fenuron	113	86.9	83.2			4.33
	Fluridone	115	79.1	71.8			8.95
	Imidacloprid	110	197	187			4.13
	Linuron	119	112	98.7			12.4
	MCPP	95.6	71.4	65.2			9.08
	Primidone	110	98.8	95.1			3.80
	Triclopyr	94.2	75.2	72.4			3.79

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1904470, 1904471, 1904472, 1904479
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1904470, 1904471, 1904472, 1904479

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1904470, 1904471, 1904472, 1904479
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1904473, 1904474, 1904475, 1904480
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1904473, 1904474, 1904475, 1904480
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1904473, 1904474, 1904475, 1904480
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1904473, 1904474, 1904475, 1904480
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1904476, 1904477, 1904478, 1904481
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	1904522, 1904523, 1904524, 1904525, 1904526, 1904527, 1904528
SM 2120 B / E31780	True Color measured at 450 nm	1904470, 1904471, 1904472, 1904479
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1904470, 1904471, 1904472, 1904479
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1904470, 1904471, 1904472, 1904479
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1904470, 1904471, 1904472, 1904479
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1904470, 1904471, 1904472, 1904479
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1904473, 1904474, 1904475, 1904480
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1904522, 1904523, 1904524, 1904525, 1904526, 1904527, 1904528
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1904522, 1904523, 1904524, 1904525, 1904526, 1904527, 1904528

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	06/08/2017			06/08/2017 14:51	Sima Feizi	1904470, 1904471, 1904472, 1904479
EPA 300.0 Rev. 2.1	06/08/2017			06/16/2017	Julia Storbeck	1904470, 1904471, 1904472, 1904479
EPA 350.1 Rev. 2.0	06/08/2017			06/08/2017	Julie Michelle Frank	1904473, 1904474, 1904475, 1904480
EPA 351.2 Rev. 2.0	06/08/2017	06/09/2017	Adrian Shelby	06/13/2017	Joseph Suarez	1904480
	06/08/2017	06/12/2017	Adrian Shelby	06/15/2017	Joseph Suarez	1904473, 1904474, 1904475
EPA 353.2 Rev. 2.0	06/08/2017			06/09/2017	Beverly Y. Sanders	1904473, 1904474, 1904475, 1904480
EPA 365.1 Rev. 2.0	06/08/2017	06/12/2017	Vijayalakshmi Reddy	06/13/2017	Lipi Saha	1904473, 1904474, 1904475, 1904480
EPA 365.1 Rev. 2.0 dissolved	06/08/2017			06/08/2017 15:00	Anthony C. Onicha	1904476
	06/08/2017			06/08/2017 15:08	Anthony C. Onicha	1904478
	06/08/2017			06/08/2017 15:09	Anthony C. Onicha	1904481
	06/08/2017			06/08/2017 15:26	Anthony C. Onicha	1904477
EPA 8321B	06/08/2017	06/15/2017	Mohammad Ghaffari	06/21/2017	Mohammad Ghaffari	1904522, 1904523, 1904524, 1904525, 1904526, 1904527, 1904528
SM 2120 B	06/08/2017			06/08/2017 15:36	Tanya Welborn	1904471
	06/08/2017			06/08/2017 15:37	Tanya Welborn	1904472
	06/08/2017			06/08/2017 15:39	Tanya Welborn	1904470
	06/08/2017			06/08/2017 15:41	Tanya Welborn	1904479
SM 2320 B-97	06/08/2017			06/10/2017	Dale L. Simmons	1904470, 1904471, 1904472, 1904479
SM 2540 C-97	06/08/2017			06/12/2017	Sima Feizi	1904470, 1904471, 1904472, 1904479
SM 2540 D-97	06/08/2017			06/12/2017	Sima Feizi	1904470, 1904471, 1904472, 1904479
SM 4500 F-C-97	06/08/2017			06/10/2017	Dale L. Simmons	1904470, 1904471, 1904472, 1904479
SM 5310 B-00	06/08/2017			06/12/2017	Christopher Armour	1904473, 1904474, 1904475, 1904480
USGS O-2060-01	06/08/2017	06/14/2017	Hoor Shaik	06/17/2017	Juyoung Kim	1904522, 1904523, 1904524, 1904525, 1904526, 1904527, 1904528