

Chemical Analysis Report

NE-DIST-2021-06-04-04

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

Event Description: **Pellicer Creek and Tribs**
Request ID: **RQ-2021-05-17-16**
Customer: **NE-DIST**
Project ID: **SMP**

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Certified by: Liang Lin, Environmental Administrator

Date Certified: 28-JUN-2021 13:44

A handwritten signature in black ink, appearing to read "Liang Lin", is shown on a light-colored background.

Case Narrative

Unless otherwise noted, all samples included in this report were received in accordance with protocols referenced in Chapter 62-160, Florida Administrative Code (F.A.C.). Results published in this report pertain only to the samples as submitted to, and received by the laboratory. All times in this report are adjusted to the applicable Eastern Time Zone (EST or EDT).

Results for the following analytical groups are included in this report: 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 by the Florida Department of Health Environmental Laboratory Certification Program 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: Stevens Branch S of Pelicer Cemetery Off CR 204 **Collection Date/Time: 06/03/2021 11:00**

Field ID: 27010070

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2252376	EPA 180.1 Rev. 2.0	Turbidity	2.7		NTU	P399253	
	EPA 300.0 Rev. 2.1	Chloride	18		mg Cl/L	P399542	
		Sulfate	32		mg SO4/L	P399544	
	SM 2120 B-2011	Color (true)	54		PCU	P399264	
	SM 2320 B-2011	Total Alkalinity	153		mg CaCO3/L	P399444	
	SM 2540 C-2011	TDS	260	A	mg/L	P399752	
	SM 2540 D-2011	TSS	3	IA	mg/L	P399649	
	SM 4500 F-C-2011	Fluoride	0.22		mg F/L	P399446	
2252380	EPA 350.1 Rev. 2.0	Ammonia-N	0.034		mg N/L	P399577	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.51		mg N/L	P399465	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.094		mg N/L	P399292	
	EPA 365.1 Rev. 2.0	Total-P	0.14		mg P/L	P399440	
	SM 5310 B-2011	Organic Carbon	8.6		mg C/L	P399667	
2252384	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.11		mg P/L	P399269	

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Pringle BR Unnamed Dirt Rd. 0.5mi S Dave BR Collection Date/Time: 06/03/2021 11:35

Field ID: 27010203

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2252373	EPA 180.1 Rev. 2.0	Turbidity	7.0		NTU	P399252	
	EPA 300.0 Rev. 2.1	Chloride	19		mg Cl/L	P399542	
		Sulfate	1.2		mg SO4/L	P399544	
	SM 2120 B-2011	Color (true)	55		PCU	P399264	
	SM 2320 B-2011	Total Alkalinity	136	A	mg CaCO3/L	P399444	
	SM 2540 C-2011	TDS	185		mg/L	P399752	
	SM 2540 D-2011	TSS	4	I	mg/L	P399649	
	SM 4500 F-C-2011	Fluoride	0.12		mg F/L	P399446	
2252374	EPA 350.1 Rev. 2.0	Ammonia-N	0.016		mg N/L	P399577	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.32		mg N/L	P399465	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.006	I	mg N/L	P399292	
	EPA 365.1 Rev. 2.0	Total-P	0.14		mg P/L	P399440	
	SM 5310 B-2011	Organic Carbon	6.9		mg C/L	P399667	
2252375	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.089		mg P/L	P399269	
2252416	EPA 8321B	2,4-D	0.0020	U	ug/L	P399076	
		Acesulfame K	0.10	U	ug/L	P399276	
		2,4,5-T	0.0040	U	ug/L	P399076	
		AMPA	0.10	U	ug/L	P399276	
		Acetaminophen	0.0080	U	ug/L	P399076	
		Acetamiprid	0.0020	U	ug/L	P399076	
		Endothall	0.25	U	ug/L	P399276	
		Glufosinate	0.10	U	ug/L	P399276	
		Glyphosate	0.10	U	ug/L	P399276	
		Afidopyrophen	0.0020	U	ug/L	P399076	
		Bentazon	8.0E-04	U	ug/L	P399076	
		Sucralose	0.024	I	ug/L	P399276	
		Benzovindiflupyr	0.0020	U	ug/L	P399076	
		Carbamazepine	8.0E-04	U	ug/L	P399076	
		Clothianidin	0.0020	U	ug/L	P399076	
		Dinotefuran	0.0020	U	ug/L	P399076	
		Diuron	0.0020	U	ug/L	P399076	
		Fenuron	0.016	U	ug/L	P399076	
		Fluridone	8.0E-04	U	ug/L	P399076	
		Imazapyr	0.047		ug/L	P399076	
		Hydrocodone	0.0020	U	ug/L	P399076	
		Ibuprofen	0.020	U	ug/L	P399076	
		Imidacloprid	0.0020	U	ug/L	P399076	
		Linuron	0.0040	U	ug/L	P399076	
		Mandestrobin	0.0020	U	ug/L	P399076	
		MCP	0.0020	U	ug/L	P399076	
		Naproxen	0.0080	U	ug/L	P399076	
		Primidone	0.0040	U	ug/L	P399076	
		Pyraclostrobin	0.0020	U	ug/L	P399076	

Field ID: 27010203

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2252416	EPA 8321B	Thiamethoxam	0.0020	U	ug/L	P399076	
		Tolfenpyrad	0.0020	U	ug/L	P399076	
		Triclopyr	0.0040	U	ug/L	P399076	

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Pellicer Creek Above Schoolhouse BR

Collection Date/Time: 06/03/2021 13:15

Field ID: G5NE0598

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2252377	EPA 180.1 Rev. 2.0	Turbidity	3.7	A	NTU	P399253	
	EPA 300.0 Rev. 2.1	Chloride	17		mg Cl/L	P399542	
		Sulfate	12		mg SO4/L	P399544	
	SM 2120 B-2011	Color (true)	51		PCU	P399264	
	SM 2320 B-2011	Total Alkalinity	123		mg CaCO3/L	P399444	
	SM 2540 C-2011	TDS	193	A	mg/L	P399753	
	SM 2540 D-2011	TSS	3	IA	mg/L	P399650	
	SM 4500 F-C-2011	Fluoride	0.13		mg F/L	P399446	
2252381	EPA 350.1 Rev. 2.0	Ammonia-N	0.016		mg N/L	P399577	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.37		mg N/L	P399465	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.040		mg N/L	P399293	
	EPA 365.1 Rev. 2.0	Total-P	0.12		mg P/L	P399440	
	SM 5310 B-2011	Organic Carbon	6.6		mg C/L	P399667	
2252385	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.095		mg P/L	P399270	

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: SchoolHouse Branch at RR Tracks

Collection Date/Time: 06/03/2021 13:30

Field ID: G5NE0599

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2252378	EPA 180.1 Rev. 2.0	Turbidity	4.2		NTU	P399253	
	EPA 300.0 Rev. 2.1	Chloride	18		mg Cl/L	P399542	
		Sulfate	6.1		mg SO4/L	P399544	
	SM 2120 B-2011	Color (true)	45		PCU	P399264	
	SM 2320 B-2011	Total Alkalinity	100		mg CaCO3/L	P399444	
	SM 2540 C-2011	TDS	154		mg/L	P399753	
	SM 2540 D-2011	TSS	4	I	mg/L	P399650	
	SM 4500 F-C-2011	Fluoride	0.056	I	mg F/L	P399446	
2252382	EPA 350.1 Rev. 2.0	Ammonia-N	0.024		mg N/L	P399644	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.39		mg N/L	P399465	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.024		mg N/L	P399293	
	EPA 365.1 Rev. 2.0	Total-P	0.077		mg P/L	P399440	
	SM 5310 B-2011	Organic Carbon	5.3		mg C/L	P399667	
2252386	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.054		mg P/L	P399270	

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Cracker Branch 1.3mi N CR 204

Collection Date/Time: 06/03/2021 14:30

Field ID: 27010063

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2252379	EPA 180.1 Rev. 2.0	Turbidity	4.2		NTU	P399253	
	EPA 300.0 Rev. 2.1	Chloride	41		mg Cl/L	P399542	
		Sulfate	7.6		mg SO4/L	P399544	
	SM 2120 B-2011	Color (true)	49		PCU	P399264	
	SM 2320 B-2011	Total Alkalinity	111		mg CaCO3/L	P399444	
	SM 2540 C-2011	TDS	213		mg/L	P399753	
	SM 2540 D-2011	TSS	3	I	mg/L	P399650	
	SM 4500 F-C-2011	Fluoride	0.11		mg F/L	P399446	
2252383	EPA 350.1 Rev. 2.0	Ammonia-N	0.022		mg N/L	P399644	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.24		mg N/L	P399465	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.041		mg N/L	P399293	
	EPA 365.1 Rev. 2.0	Total-P	0.15		mg P/L	P399440	
	SM 5310 B-2011	Organic Carbon	5.5		mg C/L	P399667	
2252387	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.11		mg P/L	P399270	

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P399252

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P399253

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P399542

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P399544

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P399577

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P399644

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P399465

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P399292

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P399293

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: P399440

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P399269

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P399270

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

Reference Method: EPA 8321B

Batch ID: P399076

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B

Batch ID: P399276

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
AMPA	0.10	U	ug/L
Endothall	0.25	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P399276

Component	Result	Code	Units
Glufosinate	0.10	U	ug/L
Glyphosate	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B-2011
Batch ID: P399264

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P399444

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

Reference Method: SM 2540 C-2011
Batch ID: P399752

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-2011
Batch ID: P399753

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P399649

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P399650

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P399446

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P399667

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P399542

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P399544

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P399577

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	97.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P399644

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	99.2		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P399465

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P399292

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P399293

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P399440

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P399269

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P399270

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

Reference Method: EPA 8321B
Batch ID: P399076

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	97.1		P	40 - 150
2,4,5-T	103		P	40 - 150
Acetaminophen	62.1		P	30 - 150
Acetamiprid	88.6		P	40 - 150
Afidopyropen	80.4		P	40 - 150
Bentazon	110		P	30 - 150
Benzovindiflupyr	96.8		P	40 - 150
Carbamazepine	91.1		P	40 - 150
Clothianidin	76.1		P	40 - 150
Dinotefuran	71.4		P	40 - 150
Diuron	88.2		P	40 - 150
Fenuron	103		P	40 - 150
Fluridone	89.3		P	40 - 150
Hydrocodone	78.7		P	40 - 150
Ibuprofen	82.6		P	40 - 150
Imazapyr	97.3		P	40 - 150
Imidacloprid	78.0		P	40 - 150
Linuron	81.4		P	40 - 150
Mandestrobin	99.1		P	40 - 150
MCPP	105		P	40 - 150
Naproxen	84.6		P	40 - 150
Primidone	95.2		P	40 - 150
Pyraclostrobin	90.2		P	40 - 150
Thiamethoxam	82.0		P	40 - 150
Tolfenpyrad	57.3		P	30 - 150
Triclopyr	96.0		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P399276

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	76.3		P	40 - 150
AMPA	96.4		P	40 - 150
Endothall	88.4		P	40 - 150
Glufosinate	102		P	40 - 150
Glyphosate	108		P	40 - 150
Sucralose	93.9		P	40 - 150

Reference Method: SM 2120 B-2011
Batch ID: P399264

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P399444

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.1		P	94 - 106

Reference Method: SM 4500 F-C-2011
Batch ID: P399446

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.3		P	93 - 104

Reference Method: SM 5310 B-2011
Batch ID: P399667

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.0		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P399542

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2252088	Chloride	95.0		P	90 - 110
2252359	Chloride	93.3		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P399544

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2252088	Sulfate	97.4		P	90 - 110
2252359	Sulfate	91.3		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P399577

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2252357	Ammonia-N	99.0	96.0	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P399644

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2252382	Ammonia-N	96.4	98.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P399292

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2252325	NO2NO3-N	100	99.7	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P399293

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2252381	NO2NO3-N	101	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P399440

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2252361	Total-P	106	108	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P399269

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2252290	O-Phosphate-P	99.5	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P399270

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2252386	O-Phosphate-P	98.1	98.4	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P399076

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2251243	2,4-D	122	128	P/P	40 - 150
2251243	2,4,5-T	107	105	P/P	40 - 150
2251243	Acetaminophen	89.9	81.9	P/P	30 - 150
2251243	Acetamiprid	103	94.5	P/P	40 - 150
2251243	Afidopyropen	92.5	79.5	P/P	40 - 150
2251243	Bentazon	102	94.0	P/P	30 - 150
2251243	Benzovindiflupyr	98.2	97.1	P/P	40 - 150
2251243	Carbamazepine	103	102	P/P	40 - 150
2251243	Clothianidin	97.1	90.4	P/P	40 - 150
2251243	Dinotefuran	92.2	85.7	P/P	40 - 150
2251243	Diuron	79.8	75.4	P/P	40 - 150
2251243	Fenuron	102	104	P/P	40 - 150
2251243	Fluridone	85.2	80.8	P/P	40 - 150
2251243	Hydrocodone	88.8	94.3	P/P	40 - 150
2251243	Ibuprofen	80.6	79.1	P/P	40 - 150
2251243	Imazapyr	117	103	P/P	40 - 150
2251243	Imidacloprid	130	116	P/P	40 - 150
2251243	Linuron	74.9	79.9	P/P	40 - 150
2251243	Mandestrobin	98.8	95.5	P/P	40 - 150
2251243	MCCP	121	119	P/P	40 - 150
2251243	Naproxen	106	78.9	P/P	40 - 150
2251243	Primidone	124	99.4	P/P	40 - 150
2251243	Pyraclostrobin	98.9	96.1	P/P	40 - 150
2251243	Thiamethoxam	122	108	P/P	40 - 150
2251243	Tolfenpyrad	56.5	59.9	P/P	30 - 150
2251243	Triclopyr	119	113	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P399276

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2251952	Acesulfame K	88.6	95.7	P/P	40 - 150
2251952	AMPA	104	106	P/P	40 - 150
2251952	Endothall	113	118	P/P	40 - 150
2251952	Glufosinate	113	116	P/P	40 - 150
2251952	Glyphosate	118	121	P/P	40 - 150
2251952	Sucralose	94.9	99.9	P/P	40 - 150

Reference Method: SM 4500 F-C-2011

Batch ID: P399446

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2252373	Fluoride	99.8	98.0	P/P	92 - 107

Reference Method: SM 5310 B-2011

Batch ID: P399667

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2252091	Organic Carbon	97.2	96.0	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P399252

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2252288	Turbidity	5.15	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P399253

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2252377	Turbidity	3.23	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P399542

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2252359	Chloride	0.0536	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P399544

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2252359	Sulfate	0.531	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P399577

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2252357	Ammonia-N	2.40	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P399644

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2252382	Ammonia-N	1.38	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P399465

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2252041	Kjeldahl Nitrogen	3.83	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P399292

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2252325	NO2NO3-N	0.440	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P399293

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2252381	NO2NO3-N	0.414	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P399440

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2252361	Total-P	1.49	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P399269

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2252290	O-Phosphate-P	0.801	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P399270

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2252386	O-Phosphate-P	0.197	Spike	P	0 - 20

Reference Method: EPA 8321B

Batch ID: P399076

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2251243	2,4-D	4.60	Spike	P	0 - 30
2251243	2,4,5-T	1.50	Spike	P	0 - 30
2251243	Acetaminophen	9.36	Spike	P	0 - 30
2251243	Acetamiprid	8.91	Spike	P	0 - 30
2251243	Afidopyropen	15.1	Spike	P	0 - 30
2251243	Bentazon	8.47	Spike	P	0 - 30
2251243	Benzovindiflupyr	1.20	Spike	P	0 - 30
2251243	Carbamazepine	0.696	Spike	P	0 - 30
2251243	Clothianidin	7.13	Spike	P	0 - 30
2251243	Dinotefuran	7.30	Spike	P	0 - 30
2251243	Diuron	5.56	Spike	P	0 - 30
2251243	Fenuron	2.56	Spike	P	0 - 30
2251243	Fluridone	5.29	Spike	P	0 - 30
2251243	Hydrocodone	5.95	Spike	P	0 - 30
2251243	Ibuprofen	1.86	Spike	P	0 - 30
2251243	Imazapyr	7.71	Spike	P	0 - 30
2251243	Imidacloprid	12.1	Spike	P	0 - 30
2251243	Linuron	6.44	Spike	P	0 - 30
2251243	Mandestrobin	3.39	Spike	P	0 - 30
2251243	MCPP	1.91	Spike	P	0 - 30
2251243	Naproxen	29.7	Spike	P	0 - 30
2251243	Primidone	21.9	Spike	P	0 - 30
2251243	Pyraclostrobin	2.81	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P399076

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2251243	Thiamethoxam	12.3	Spike	P	0 - 30
2251243	Tolfenpyrad	5.84	Spike	P	0 - 30
2251243	Triclopyr	5.64	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P399276

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2251952	Acesulfame K	7.77	Spike	P	0 - 30
2251952	AMPA	2.10	Spike	P	0 - 30
2251952	Endothall	3.74	Spike	P	0 - 30
2251952	Glufosinate	2.06	Spike	P	0 - 30
2251952	Glyphosate	3.11	Spike	P	0 - 30
2251952	Sucralose	4.32	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P399264

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2252356	Color (true)	3.86	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P399444

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2252373	Total Alkalinity	0.0928	Sample	P	0 - 5.2

Reference Method: SM 2540 C-2011
Batch ID: P399752

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2252376	TDS	0.769	Sample	P	0 - 10

Reference Method: SM 2540 C-2011
Batch ID: P399753

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2252377	TDS	3.11	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P399446

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2252373	Fluoride	1.40	Spike	P	0 - 2.1

Quality Assurance Report Precision

Reference Method: SM 5310 B-2011
Batch ID: P399667

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2252091	Organic Carbon	0.841	Spike	P	0 - 20

* Sample, spike and/or laboratory control sample precision (LCS) is reported.

Quality Assurance Report Surrogates

Lab Sample ID: 2252416

Field Sample ID: 27010203

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	121	P	30 - 160
EPA 8321B	Acetaminophen-d4	112	P	30 - 160
EPA 8321B	Carbamazepine-d10	91.8	P	30 - 160
EPA 8321B	Diuron-d6	69.1	P	30 - 160
EPA 8321B	Endothall-d6	64.9	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	111	P	30 - 160
EPA 8321B	Ibuprofen-d3	82.6	P	30 - 160
EPA 8321B	Primidone-d5	97.3	P	30 - 160
EPA 8321B	Sucralose-d6	113	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A105885

Included Lab Sample IDs: 2252373, 2252376, 2252377, 2252378, 2252379

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	98.0	99.0	P/P	95 - 105
Turbidity	99.0	99.5	P/P	95 - 105

Reference Method: SM 2120 B-2011

Run ID: A105890

Included Lab Sample IDs: 2252373, 2252376, 2252377, 2252378, 2252379

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	101	P/P	90 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A105891

Included Lab Sample IDs: 2252375, 2252384, 2252385, 2252386, 2252387

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.1	98.7	P/P	90 - 110
O-Phosphate-P	99.0	98.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A105912

Included Lab Sample IDs: 2252374, 2252380, 2252381, 2252382, 2252383

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

Reference Method: EPA 8321B

Run ID: A105919

Included Lab Sample IDs: 2252416

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	146	120	P/P	60 - 160
Endothall	105	90.1	P/P	60 - 160
Sucralose	112	123	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A105927

Included Lab Sample IDs: 2252416

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	107	120	P/P	60 - 160
Glufosinate	116	126	P/P	60 - 160
Glyphosate	117	131	P/P	60 - 160

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A105956

Included Lab Sample IDs: 2252373, 2252376, 2252377, 2252378, 2252379

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.8	99.6	P/P	90 - 110
Sulfate	99.0	98.9	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-2011

Run ID: A105969

Included Lab Sample IDs: 2252373, 2252376, 2252377, 2252378, 2252379

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	95.8	98.3	P/P	90 - 110
Total Alkalinity	97.1	98.6	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A105969

Included Lab Sample IDs: 2252373, 2252376, 2252377, 2252378, 2252379

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A105983

Included Lab Sample IDs: 2252374, 2252380, 2252381, 2252382, 2252383

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	103	103	P/P	85 - 115
Total-P	104	103	P/P	85 - 115

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A106020

Included Lab Sample IDs: 2252374, 2252380, 2252381, 2252382, 2252383

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	103	98.0	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A106024

Included Lab Sample IDs: 2252374, 2252380, 2252381

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

Reference Method: EPA 8321B

Run ID: A106040

Included Lab Sample IDs: 2252416

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	98.7	93.3	P/P	50 - 150
2,4,5-T	115	119	P/P	50 - 150
Acetaminophen	92.3	93.2	P/P	60 - 160
Acetamiprid	107	107	P/P	50 - 150
Afidopyropen	81.5	104	P/P	50 - 150
Bentazon	138	133	P/P	50 - 160
Benzovindiflupyr	113	122	P/P	50 - 150
Carbamazepine	109	105	P/P	60 - 150
Clothianidin	103	107	P/P	60 - 150
Dinotefuran	102	104	P/P	50 - 150
Diuron	112	123	P/P	60 - 160
Fenuron	92.4	100	P/P	60 - 150
Fluridone	103	99.2	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A106040
Included Lab Sample IDs: 2252416

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Hydrocodone	93.8	88.0	P/P	60 - 150
Ibuprofen	87.1	123	P/P	50 - 160
Imazapyr	113	107	P/P	50 - 150
Imidacloprid	93.8	89.7	P/P	60 - 150
Linuron	99.6	107	P/P	60 - 150
Mandestrobin	104	98.1	P/P	50 - 150
MCPP	126	129	P/P	50 - 150
Naproxen	111	87.0	P/P	50 - 160
Primidone	105	97.6	P/P	60 - 150
Pyraclostrobin	104	105	P/P	60 - 150
Thiamethoxam	99.0	97.9	P/P	50 - 150
Tolfenpyrad	100	102	P/P	60 - 150
Triclopyr	115	112	P/P	50 - 150

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A106044
Included Lab Sample IDs: 2252382, 2252383

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.2	98.6	P/P	90 - 110

Reference Method: SM 5310 B-2011
Run ID: A106059
Included Lab Sample IDs: 2252374, 2252380, 2252381, 2252382, 2252383

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.0	95.9	P/P	90 - 110
Organic Carbon	96.3	96.6	P/P	90 - 110

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

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 180.1 Rev. 2.0	Turbidity					5.15	
	Turbidity					3.23	
EPA 300.0 Rev. 2.1	Chloride	98.8	93.3	95.0		0.0536	
	Sulfate	98.1	91.3	97.4		0.531	
EPA 350.1 Rev. 2.0	Ammonia-N	97.6	99.0	96.0			2.40
	Ammonia-N	99.2	96.4	98.4			1.38
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	98.0					3.83
EPA 353.2 Rev. 2.0	NO2NO3-N	102	100	99.7			0.440
	NO2NO3-N	102	101	100			0.414
EPA 365.1 Rev. 2.0	Total-P	104	106	108			1.49
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	103	99.5	100			0.801
	O-Phosphate-P	100	98.1	98.4			0.197
EPA 8321B	2,4-D	97.1	128	122			4.60
	2,4,5-T	103	107	105			1.50
	Acesulfame K	76.3	88.6	95.7			7.77
	Acetaminophen	62.1	81.9	89.9			9.36
	Acetamiprid	88.6	94.5	103			8.91
	Afidopyropen	80.4	79.5	92.5			15.1
	AMPA	96.4	104	106			2.10
	Bentazon	110	102	94.0			8.47
	Benzovindiflupyr	96.8	97.1	98.2			1.20
	Carbamazepine	91.1	102	103			0.696
	Clothianidin	76.1	90.4	97.1			7.13
	Dinotefuran	71.4	85.7	92.2			7.30
	Diuron	88.2	75.4	79.8			5.56
	Endothall	88.4	113	118			3.74
	Fenuron	103	104	102			2.56
	Fluridone	89.3	80.8	85.2			5.29
	Glufosinate	102	113	116			2.06
	Glyphosate	108	118	121			3.11
	Hydrocodone	78.7	94.3	88.8			5.95
	Ibuprofen	82.6	80.6	79.1			1.86
	Imazapyr	97.3	103	117			7.71
	Imidacloprid	78.0	116	130			12.1
	Linuron	81.4	79.9	74.9			6.44
	Mandestrobin	99.1	95.5	98.8			3.39
	MCPP	105	119	121			1.91
	Naproxen	84.6	78.9	106			29.7
	Primidone	95.2	99.4	124			21.9
	Pyraclostrobin	90.2	96.1	98.9			2.81
	Sucralose	93.9	94.9	99.9			4.32
	Thiamethoxam	82.0	108	122			12.3
	Tolfenpyrad	57.3	59.9	56.5			5.84
	Triclopyr	96.0	113	119			5.64
SM 2120 B-2011	Color (true)	100				3.86	
SM 2320 B-2011	Total Alkalinity	98.1				0.0928	
SM 2540 C-2011	TDS					0.769	
	TDS					3.11	
SM 4500 F-C-2011	Fluoride	99.3	99.8	98.0			1.40
SM 5310 B-2011	Organic Carbon	95.0	97.2	96.0			0.841

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2252373, 2252376, 2252377, 2252378, 2252379
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2252373, 2252376, 2252377, 2252378, 2252379
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2252373, 2252376, 2252377, 2252378, 2252379
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2252374, 2252380, 2252381, 2252382, 2252383
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2252374, 2252380, 2252381, 2252382, 2252383
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2252374, 2252380, 2252381, 2252382, 2252383
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2252374, 2252380, 2252381, 2252382, 2252383
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2252375, 2252384, 2252385, 2252386, 2252387
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2252416
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2252373, 2252376, 2252377, 2252378, 2252379
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2252373, 2252376, 2252377, 2252378, 2252379
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2252373, 2252376, 2252377, 2252378, 2252379
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2252373, 2252376, 2252377, 2252378, 2252379
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2252373, 2252376, 2252377, 2252378, 2252379
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2252374, 2252380, 2252381, 2252382, 2252383

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	06/04/2021			06/04/2021 15:02	Yen Ta	2252373, 2252376, 2252377, 2252378, 2252379
EPA 300.0 Rev. 2.1	06/04/2021			06/10/2021 20:26	Lipi Saha	2252373
	06/04/2021			06/10/2021 20:39	Lipi Saha	2252376
	06/04/2021			06/10/2021 20:51	Lipi Saha	2252377
	06/04/2021			06/10/2021 21:03	Lipi Saha	2252378
	06/04/2021			06/10/2021 21:15	Lipi Saha	2252379
EPA 350.1 Rev. 2.0	06/04/2021			06/11/2021 12:31	Roberta Tatti	2252374
	06/04/2021			06/11/2021 12:32	Roberta Tatti	2252380
	06/04/2021			06/11/2021 12:33	Roberta Tatti	2252381
	06/04/2021			06/14/2021 14:11	Roberta Tatti	2252382
	06/04/2021			06/14/2021 14:15	Roberta Tatti	2252383
EPA 351.2 Rev. 2.0	06/04/2021	06/09/2021 13:07	Benjamin T. Nordmann	06/10/2021 11:27	Virginia P. Brown	2252374
	06/04/2021	06/09/2021 13:07	Benjamin T. Nordmann	06/10/2021 11:28	Virginia P. Brown	2252380
	06/04/2021	06/09/2021 13:07	Benjamin T. Nordmann	06/10/2021 11:30	Virginia P. Brown	2252381
	06/04/2021	06/09/2021 13:07	Benjamin T. Nordmann	06/10/2021 11:32	Virginia P. Brown	2252382
	06/04/2021	06/09/2021 13:07	Benjamin T. Nordmann	06/10/2021 11:33	Virginia P. Brown	2252383
EPA 353.2 Rev. 2.0	06/04/2021			06/07/2021 11:27	Beverly Y. Sanders	2252374
	06/04/2021			06/07/2021 11:28	Beverly Y. Sanders	2252380
	06/04/2021			06/07/2021 11:35	Beverly Y. Sanders	2252381
	06/04/2021			06/07/2021 11:47	Beverly Y. Sanders	2252382
	06/04/2021			06/07/2021 11:48	Beverly Y. Sanders	2252383
EPA 365.1 Rev. 2.0	06/04/2021	06/09/2021 14:02	Yen Ta	06/10/2021 12:33	Shengyu Ding	2252374
	06/04/2021	06/09/2021 14:02	Yen Ta	06/10/2021 12:34	Shengyu Ding	2252380
	06/04/2021	06/09/2021 14:02	Yen Ta	06/10/2021 12:35	Shengyu Ding	2252381
	06/04/2021	06/09/2021 14:02	Yen Ta	06/10/2021 12:38	Shengyu Ding	2252382
	06/04/2021	06/09/2021 14:02	Yen Ta	06/10/2021 12:39	Shengyu Ding	2252383
EPA 365.1 Rev. 2.0 dissolved	06/04/2021			06/04/2021 17:41	Ping Hua	2252375
	06/04/2021			06/04/2021 17:42	Ping Hua	2252384
	06/04/2021			06/04/2021 17:50	Ping Hua	2252386
	06/04/2021			06/04/2021 17:53	Ping Hua	2252385
	06/04/2021			06/04/2021 17:54	Ping Hua	2252387
EPA 8321B	06/04/2021	06/07/2021 08:00	Pramila Ghimire	06/07/2021 14:02	Juyoung Kim	2252416
	06/04/2021	06/07/2021 08:00	Pramila Ghimire	06/07/2021 14:47	Pramila Ghimire	2252416
	06/04/2021	06/07/2021 09:00	Hoor Shaik	06/12/2021 10:28	Juyoung Kim	2252416
SM 2120 B-2011	06/04/2021			06/04/2021 16:52	Madeline Gruver	2252373, 2252376
	06/04/2021			06/04/2021 16:53	Madeline Gruver	2252377
	06/04/2021			06/04/2021 16:54	Madeline Gruver	2252378
	06/04/2021			06/04/2021 16:55	Madeline Gruver	2252379
SM 2320 B-2011	06/04/2021			06/08/2021 15:36	Dale L. Simmons	2252373

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2320 B-2011	06/04/2021			06/08/2021 20:00	Dale L. Simmons	2252376
	06/04/2021			06/08/2021 20:16	Dale L. Simmons	2252377
	06/04/2021			06/08/2021 20:30	Dale L. Simmons	2252378
	06/04/2021			06/08/2021 20:45	Dale L. Simmons	2252379
SM 2540 C-2011	06/04/2021			06/08/2021 14:56	Yijie Li	2252373, 2252376, 2252377, 2252378, 2252379
SM 2540 D-2011	06/04/2021			06/08/2021 14:56	Yijie Li	2252373, 2252376, 2252377, 2252378, 2252379
SM 4500 F-C-2011	06/04/2021			06/08/2021 15:23	Dale L. Simmons	2252373
	06/04/2021			06/08/2021 20:00	Dale L. Simmons	2252376
	06/04/2021			06/08/2021 20:16	Dale L. Simmons	2252377
	06/04/2021			06/08/2021 20:30	Dale L. Simmons	2252378
	06/04/2021			06/08/2021 20:45	Dale L. Simmons	2252379
SM 5310 B-2011	06/04/2021			06/10/2021 00:29	Madeline Gruver	2252383
	06/04/2021			06/10/2021 03:31	Madeline Gruver	2252374
	06/04/2021			06/10/2021 03:41	Madeline Gruver	2252380
	06/04/2021			06/10/2021 03:50	Madeline Gruver	2252381
	06/04/2021			06/10/2021 04:02	Madeline Gruver	2252382