

Chemical Analysis Report

NW-DIST-2020-12-10-01

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

Event Description: **Twin Lakes Eastern Lakes Run**
Request ID: **RQ-2020-12-07-59**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
160 Government Center
Suite 208
Pensacola, FL 32502-5794
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Certified by: Liang Lin, Environmental Administrator

Date Certified: 04-JAN-2021 14:46

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: Twin Lake

Collection Date/Time: 12/09/2020 12:15

Field ID: G3NW0215

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2212170	EPA 180.1 Rev. 2.0	Turbidity	1.7		NTU	P390988	
	EPA 300.0 Rev. 2.1	Bromide	0.082		mg Br/L	P391160	
		Chloride	33		mg Cl/L	P391161	
		Sulfate	11		mg SO4/L	P391163	
	SM 2120 B-2011	Color (true)	54	A	PCU	P390993	
	SM 2320 B-2011	Total Alkalinity	54		mg CaCO3/L	P391578	
	SM 2540 C-2011	TDS	155		mg/L	P391518	
	SM 2540 D-2011	TSS	2	I	mg/L	P391523	
	SM 4500 F-C-2011	Fluoride	0.13		mg F/L	P391090	
2212173	EPA 350.1 Rev. 2.0	Ammonia-N	0.069		mg N/L	P391306	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.84		mg N/L	P391291	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.016		mg N/L	P391022	
	EPA 365.1 Rev. 2.0	Total-P	0.39		mg P/L	P391093	
	SM 5310 B-2011	Organic Carbon	7.6		mg C/L	P391172	
2212176	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.36		mg P/L	P390997	

Ref. Method and Comment:

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

Sample Location: Kell-air Lake

Collection Date/Time: 12/09/2020 13:00

Field ID: G3NW0217

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2212171	EPA 180.1 Rev. 2.0	Turbidity	16		NTU	P390988	
	EPA 300.0 Rev. 2.1	Bromide	0.037	I	mg Br/L	P391160	
		Chloride	25		mg Cl/L	P391161	
		Sulfate	9.6		mg SO4/L	P391163	
	SM 2120 B-2011	Color (true)	44	A	PCU	P390995	
	SM 2320 B-2011	Total Alkalinity	50		mg CaCO3/L	P391578	
	SM 2540 C-2011	TDS	119		mg/L	P391519	
	SM 2540 D-2011	TSS	6	I	mg/L	P391524	
	SM 4500 F-C-2011	Fluoride	0.096	I	mg F/L	P391090	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.005	I	mg N/L	P391306	
2212174	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.5		mg N/L	P391291	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.020		mg N/L	P391022	
	EPA 365.1 Rev. 2.0	Total-P	0.21		mg P/L	P391093	
	SM 5310 B-2011	Organic Carbon	8.8		mg C/L	P391172	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.13		mg P/L	P390997	
2212177	dissolved						

Ref. Method and Comment:

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

Sample Location: Coleman Lake

Collection Date/Time: 12/09/2020 12:45

Field ID: G3NW0216

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2212172	EPA 180.1 Rev. 2.0	Turbidity	5.7		NTU	P390988	
	EPA 300.0 Rev. 2.1	Bromide	0.052		mg Br/L	P391160	
		Chloride	25		mg Cl/L	P391161	
		Sulfate	9.6		mg SO4/L	P391163	
	SM 2120 B-2011	Color (true)	54		PCU	P390993	
	SM 2320 B-2011	Total Alkalinity	51		mg CaCO3/L	P391578	
	SM 2540 C-2011	TDS	124	A	mg/L	P391519	
	SM 2540 D-2011	TSS	3	IA	mg/L	P391524	
	SM 4500 F-C-2011	Fluoride	0.090	I	mg F/L	P391090	
2212175	EPA 350.1 Rev. 2.0	Ammonia-N	0.007		mg N/L	P391306	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.89		mg N/L	P391291	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.29		mg N/L	P391023	
	EPA 365.1 Rev. 2.0	Total-P	0.21		mg P/L	P391093	
	SM 5310 B-2011	Organic Carbon	7.2		mg C/L	P391172	
2212178	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.16		mg P/L	P390997	

Ref. Method and Comment:

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

Sample Location: Lake Juniper Center

Collection Date/Time: 12/09/2020 10:40

Field ID: G3NW0119

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2212179	EPA 180.1 Rev. 2.0	Turbidity	1.7		NTU	P390989	
	EPA 300.0 Rev. 2.1	Chloride	5.7		mg Cl/L	P391161	
		Sulfate	1.0		mg SO4/L	P391163	
	SM 2120 B-2011	Color (true)	28		PCU	P390993	
	SM 2320 B-2011	Total Alkalinity	4.0		mg CaCO3/L	P391578	
	SM 2540 C-2011	TDS	22	I	mg/L	P391519	
	SM 2540 D-2011	TSS	2	I	mg/L	P391524	
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P391090	
2212180	EPA 350.1 Rev. 2.0	Ammonia-N	0.10		mg N/L	P391082	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.71		mg N/L	P391291	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.038		mg N/L	P391023	
	EPA 365.1 Rev. 2.0	Total-P	0.012		mg P/L	P391093	
	SM 5310 B-2011	Organic Carbon	5.5		mg C/L	P391172	
2212181	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P390997	
2212192	EPA 8321B	2,4-D	0.019		ug/L	P391039	
		Acesulfame K**	0.10	U	ug/L	P391013	
		AMPA**	0.10	U	ug/L	P391013	
		Sucralose**	1.4		ug/L	P391013	
		Acetaminophen**	0.0080	U	ug/L	P391039	
		Acetamiprid**	0.0020	U	ug/L	P391039	
		Endothall**	0.25	U	ug/L	P391013	
		Glufosinate**	0.10	U	ug/L	P391013	
		Glyphosate**	0.10	U	ug/L	P391013	
		Afidopyproden**	0.0020	U	ug/L	P391039	
		Bentazon	8.0E-04	U	ug/L	P391039	
		Benzovindiflupyr**	0.0020	U	ug/L	P391039	
		Carbamazepine**	8.0E-04	U	ug/L	P391039	
		Clothianidin**	0.0020	U	ug/L	P391039	
		Dinotefuran**	0.0020	U	ug/L	P391039	
		Diuron	0.0020	U	ug/L	P391039	
		Fenuron	0.016	U	ug/L	P391039	
		Fluridone**	8.0E-04	U	ug/L	P391039	
		Imazapyr**	0.0040	U	ug/L	P391039	
		Hydrocodone**	0.0020	U	ug/L	P391039	
		Ibuprofen**	0.020	U	ug/L	P391039	
		Imidacloprid	0.0025	I	ug/L	P391039	
		Linuron	0.0040	U	ug/L	P391039	
		Mandestrobin**	0.0020	U	ug/L	P391039	
		MCP	0.0020	U	ug/L	P391039	
		Naproxen**	0.0080	U	ug/L	P391039	
		Primidone**	0.0040	U	ug/L	P391039	
		Pyraclostrobin**	0.0020	U	ug/L	P391039	
		Thiamethoxam**	0.0020	U	ug/L	P391039	

Field ID: G3NW0119

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2212192	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P391039	
		Triclopyr**	0.0040	U	ug/L	P391039	

Ref. Method and Comment:

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

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P390988

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P390989

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P391160

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P391161

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P391163

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391082

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391306

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P391291

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P391022

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P391023

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P391093

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P390997

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

Reference Method: EPA 8321B
Batch ID: P391013

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
AMPA	0.10	U	ug/L
Endothall	0.25	U	ug/L
Glufosinate	0.10	U	ug/L
Glyphosate	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P391039

Component	Result	Code	Units
2,4-D	0.0020	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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P391039

Component	Result	Code	Units
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2120 B-2011
Batch ID: P390993

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B-2011
Batch ID: P390995

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P391578

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

Reference Method: SM 2540 C-2011
Batch ID: P391518

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-2011
Batch ID: P391519

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P391523

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P391524

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P391090

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 5310 B-2011
Batch ID: P391172

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: P391160

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Bromide	99.3		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P391161

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	98.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P391163

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391082

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391306

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P391291

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P391022

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P391023

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P391093

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P390997

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	98.6		P	90 - 110

Reference Method: EPA 8321B
 Batch ID: P391013

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	102		P	40 - 150
AMPA	90.8		P	40 - 150
Endothall	94.9		P	40 - 150
Glufosinate	97.7		P	40 - 150
Glyphosate	80.5		P	40 - 140
Sucralose	103		P	40 - 150

Reference Method: EPA 8321B
 Batch ID: P391039

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	81.8		P	30 - 160
Acetaminophen	64.8		P	30 - 150
Acetamiprid	89.5		P	30 - 160
Afidopyropen	61.0		P	30 - 160
Bentazon	43.3		P	30 - 150
Benzovindiflupyr	79.1		P	30 - 160
Carbamazepine	69.7		P	30 - 160
Clothianidin	81.5		P	30 - 160
Dinotefuran	77.5		P	30 - 160
Diuron	54.1		P	30 - 160
Fenuron	91.8		P	30 - 160
Fluridone	70.6		P	30 - 160
Hydrocodone	84.0		P	30 - 160
Ibuprofen	43.9		P	30 - 160
Imazapyr	65.0		P	30 - 160
Imidacloprid	91.7		P	30 - 160
Linuron	52.7		P	30 - 160
Mandestrobin	72.6		P	30 - 160
MCPP	74.4		P	30 - 160
Naproxen	43.6		P	30 - 160
Primidone	71.5		P	30 - 160
Pyraclostrobin	70.2		P	30 - 160
Thiamethoxam	84.0		P	30 - 160
Tolfenpyrad	43.7		P	30 - 160
Triclopyr	61.0		P	30 - 160

Reference Method: SM 2120 B-2011
 Batch ID: P390993

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 2120 B-2011
Batch ID: P390995

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

Reference Method: SM 2320 B-2011
Batch ID: P391578

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.1		P	93 - 104

Reference Method: SM 4500 F-C-2011
Batch ID: P391090

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.4		P	90 - 106

Reference Method: SM 5310 B-2011
Batch ID: P391172

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.1		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P391160

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2212170	Bromide	98.4	97.8	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P391161

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2211733	Chloride	96.9		P	90 - 110
2212033	Chloride	95.6		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P391163

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2211733	Sulfate	96.2		P	90 - 110
2212033	Sulfate	98.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391082

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2211323	Ammonia-N	96.6	96.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391306

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2212034	Ammonia-N	98.6	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P391291

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2212180	Kjeldahl Nitrogen	93.3	110	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P391022

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2211954	NO2NO3-N	98.5	95.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P391023

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2212175	NO2NO3-N	95.0		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P391093

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2212034	Total-P	102	104	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P390997

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2212203	O-Phosphate-P	101	101	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P391013

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2211875	Acesulfame K	92.0	91.9	P/P	40 - 150
2211875	AMPA	127	123	P/P	40 - 150
2211875	Endothall	114	110	P/P	40 - 150
2211875	Glufosinate	95.4	108	P/P	40 - 150
2211875	Glyphosate	80.9	97.1	P/P	40 - 140
2211875	Sucralose	99.9	103	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P391039

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2211885	2,4-D	60.7	59.2	P/P	30 - 160
2211885	Acetaminophen	53.2	57.9	P/P	30 - 150
2211885	Acetamiprid	97.3	92.1	P/P	30 - 160
2211885	Afidopyropen	61.8	62.2	P/P	30 - 160
2211885	Benzovindiflupyr	74.4	69.7	P/P	30 - 160
2211885	Carbamazepine	63.4	62.2	P/P	30 - 160
2211885	Clothianidin	68.2	67.4	P/P	30 - 160
2211885	Dinotefuran	92.5	84.3	P/P	30 - 160
2211885	Diuron	40.8	40.4	P/P	30 - 160
2211885	Fenuron	79.0	79.1	P/P	30 - 160
2211885	Fluridone	69.9	70.9	P/P	30 - 160
2211885	Hydrocodone	102	99.1	P/P	30 - 160
2211885	Ibuprofen	34.4	40.6	P/P	30 - 160
2211885	Imazapyr	55.9	49.7	P/P	30 - 160
2211885	Imidacloprid	105	112	P/P	30 - 160
2211885	Linuron	55.3	58.8	P/P	30 - 160
2211885	Mandestrobin	66.6	69.7	P/P	30 - 160
2211885	MCPP	71.5	64.6	P/P	30 - 160
2211885	Naproxen	35.1	33.0	P/P	30 - 160
2211885	Primidone	73.0	69.3	P/P	30 - 160
2211885	Pyraclostrobin	68.0	69.4	P/P	30 - 160
2211885	Thiamethoxam	107	105	P/P	30 - 160
2211885	Tolfenpyrad	47.7	43.3	P/P	30 - 160
2211885	Triclopyr	64.7	66.3	P/P	30 - 160

Reference Method: SM 4500 F-C-2011
Batch ID: P391090

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2212172	Fluoride	96.8	95.7	P/P	94 - 107

Reference Method: SM 5310 B-2011
Batch ID: P391172

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

Matrix Spike Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P391172

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2212173	Organic Carbon	102	106	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P390988

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2212147	Turbidity	9.36	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P390989

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2212198	Turbidity	1.50	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P391160

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2212170	Bromide	0.524	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P391161

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2211733	Chloride	0.195	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P391163

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2211733	Sulfate	0.179	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391082

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2211323	Ammonia-N	0.207	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391306

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2212034	Ammonia-N	1.49	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P391291

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2212180	Kjeldahl Nitrogen	10.3	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P391022

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2211954	NO2NO3-N	2.18	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P391023

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2212175	NO2NO3-N	0.204	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P391093

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2212034	Total-P	1.19	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P390997

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2212203	O-Phosphate-P	0.243	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P391013

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2211875	Acesulfame K	0.137	Spike	P	0 - 30
2211875	AMPA	3.00	Spike	P	0 - 30
2211875	Endothall	4.07	Spike	P	0 - 30
2211875	Glufosinate	12.0	Spike	P	0 - 30
2211875	Glyphosate	18.2	Spike	P	0 - 30
2211875	Sucralose	2.10	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P391039

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2211885	2,4-D	2.48	Spike	P	0 - 30
2211885	Acetaminophen	8.39	Spike	P	0 - 30
2211885	Acetamiprid	5.45	Spike	P	0 - 30
2211885	Afidopyropen	0.697	Spike	P	0 - 30
2211885	Bentazon	5.03	Spike	P	0 - 30
2211885	Benzovindiflupyr	6.46	Spike	P	0 - 30
2211885	Carbamazepine	1.90	Spike	P	0 - 30
2211885	Clothianidin	1.24	Spike	P	0 - 30
2211885	Dinotefuran	9.27	Spike	P	0 - 30
2211885	Diuron	0.957	Spike	P	0 - 30
2211885	Fenuron	0.169	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P391039

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2211885	Fluridone	1.35	Spike	P	0 - 30
2211885	Hydrocodone	2.42	Spike	P	0 - 30
2211885	Ibuprofen	16.5	Spike	P	0 - 30
2211885	Imazapyr	10.5	Spike	P	0 - 30
2211885	Imidacloprid	6.57	Spike	P	0 - 30
2211885	Linuron	6.07	Spike	P	0 - 30
2211885	Mandestrobin	4.65	Spike	P	0 - 30
2211885	MCP	10.2	Spike	P	0 - 30
2211885	Naproxen	6.07	Spike	P	0 - 30
2211885	Primidone	5.31	Spike	P	0 - 30
2211885	Pyraclostrobin	2.08	Spike	P	0 - 30
2211885	Thiamethoxam	1.59	Spike	P	0 - 30
2211885	Tolfenpyrad	9.60	Spike	P	0 - 30
2211885	Triclopyr	2.48	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P390993

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2212170	Color (true)	0.867	Sample	P	0 - 20

Reference Method: SM 2120 B-2011
Batch ID: P390995

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2212171	Color (true)	0.0735	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P391578

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2212204	Total Alkalinity	2.04	Sample	P	0 - 8.1

Reference Method: SM 2540 C-2011
Batch ID: P391518

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2211720	TDS	2.34	Sample	P	0 - 10

Reference Method: SM 2540 C-2011
Batch ID: P391519

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2212172	TDS	4.84	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 4500 F-C-2011
Batch ID: P391090

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2212172	Fluoride	0.924	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011
Batch ID: P391172

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2212173	Organic Carbon	2.68	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2212192

Field Sample ID: G3NW0119

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	59.1	P	30 - 160
EPA 8321B	Acetaminophen-d4	50.4	P	30 - 160
EPA 8321B	Carbamazepine-d10	46.6	P	30 - 160
EPA 8321B	Diuron-d6	47.9	P	30 - 160
EPA 8321B	Endothall-d6	103	P	40 - 160
EPA 8321B	Endothall-d6	103	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	106	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	106	P	40 - 160
EPA 8321B	Ibuprofen-d3	43.9	P	30 - 160
EPA 8321B	Primidone-d5	68.0	P	30 - 160
EPA 8321B	Sucralose-d6	97.4	P	30 - 160
EPA 8321B	Sucralose-d6	97.4	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A102455

Included Lab Sample IDs: 2212170, 2212171, 2212172, 2212179

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.1	98.8	P/P	90 - 110
Sulfate	99.2	98.7	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A102456

Included Lab Sample IDs: 2212170, 2212171, 2212172

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bromide	98.7	108	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A102523

Included Lab Sample IDs: 2212170, 2212171, 2212172, 2212179

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	104	P/P	95 - 105
Turbidity	104	104	P/P	95 - 105

Reference Method: SM 2120 B-2011

Run ID: A102525

Included Lab Sample IDs: 2212170, 2212171, 2212172, 2212179

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	101	P/P	90 - 115
Color (true)	102	103	P/P	90 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A102527

Included Lab Sample IDs: 2212176, 2212177, 2212178, 2212181

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	99.2	P/P	90 - 110
O-Phosphate-P	99.1	99.5	P/P	90 - 110
O-Phosphate-P	99.5	98.9	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A102539

Included Lab Sample IDs: 2212173, 2212174, 2212175, 2212180

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A102553

Included Lab Sample IDs: 2212180

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	95.8	93.7	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 4500 F-C-2011

Run ID: A102561

Included Lab Sample IDs: 2212170, 2212171, 2212172, 2212179

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.1	101	P/P	90 - 110
Fluoride	99.5	99.1	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A102568

Included Lab Sample IDs: 2212192

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	84.4	89.0	P/P	60 - 160
AMPA	91.4	82.8	P/P	60 - 160
Endothall	98.0	97.6	P/P	60 - 160
Glufosinate	77.6	80.6	P/P	60 - 160
Glyphosate	94.9	87.7	P/P	60 - 160

Reference Method: SM 5310 B-2011

Run ID: A102590

Included Lab Sample IDs: 2212173, 2212174, 2212175, 2212180

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	100	101	P/P	90 - 110
Organic Carbon	97.8	100	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A102622

Included Lab Sample IDs: 2212192

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	106	96.5	P/P	60 - 160

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A102628

Included Lab Sample IDs: 2212173, 2212174, 2212175

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.4	99.0	P/P	90 - 110
Ammonia-N	99.1	98.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A102645

Included Lab Sample IDs: 2212173, 2212174, 2212175

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A102670

Included Lab Sample IDs: 2212173, 2212174, 2212175, 2212180

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	102	100	P/P	90 - 110
Kjeldahl Nitrogen	96.2	102	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A102672

Included Lab Sample IDs: 2212180

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

Reference Method: SM 2320 B-2011

Run ID: A102709

Included Lab Sample IDs: 2212170, 2212171, 2212172, 2212179

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	95.8	92.9	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A102718

Included Lab Sample IDs: 2212192

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	106	89.0	P/P	50 - 150
Acetaminophen	110	107	P/P	60 - 160
Acetamiprid	109	120	P/P	50 - 150
Afidopyropen	104	100	P/P	50 - 150
Bentazon	109	116	P/P	50 - 160
Benzovindiflupyr	109	113	P/P	50 - 150
Carbamazepine	117	113	P/P	60 - 150
Clothianidin	111	109	P/P	60 - 150
Dinotefuran	104	101	P/P	50 - 150
Diuron	108	101	P/P	60 - 160
Fenuron	106	109	P/P	60 - 150
Fluridone	100	113	P/P	60 - 160
Hydrocodone	106	97.0	P/P	60 - 150
Ibuprofen	91.9	65.1	P/P	50 - 160
Imazapyr	87.0	84.7	P/P	50 - 150
Imidacloprid	97.6	89.8	P/P	60 - 150
Linuron	115	118	P/P	60 - 150
Mandestrobin	109	106	P/P	50 - 150
MCPD	86.2	83.0	P/P	50 - 150
Naproxen	65.6	70.6	P/P	50 - 160
Primidone	94.4	89.8	P/P	60 - 150
Pyraclostrobin	108	107	P/P	60 - 150
Thiamethoxam	105	104	P/P	50 - 150
Tolfenpyrad	99.5	89.8	P/P	60 - 150
Triclopyr	95.7	96.4	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	MS
						SMP	
EPA 180.1 Rev. 2.0	Turbidity					9.36	
	Turbidity					1.50	
EPA 300.0 Rev. 2.1	Bromide	99.3	98.4	97.8			0.524
	Chloride	98.7	96.9	95.6		0.195	
	Sulfate	99.2	96.2	98.7		0.179	
EPA 350.1 Rev. 2.0	Ammonia-N	97.2	96.6	96.8			0.207
	Ammonia-N	97.8	98.6	100			1.49
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	106	93.3	110			10.3
EPA 353.2 Rev. 2.0	NO2NO3-N	100	98.5	95.0			2.18
	NO2NO3-N	100	95.0				0.204
EPA 365.1 Rev. 2.0	Total-P	102	102	104			1.19
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.6	101	101			0.243
EPA 8321B	2,4-D	81.8	60.7	59.2			2.48
	Acesulfame K	102	92.0	91.9			0.137
	Acetaminophen	64.8	53.2	57.9			8.39
	Acetamiprid	89.5	97.3	92.1			5.45
	Afidopyropen	61.0	61.8	62.2			0.697
	AMPA	90.8	127	123			3.00
	Bentazon	43.3					5.03
	Benzovindiflupyr	79.1	74.4	69.7			6.46
	Carbamazepine	69.7	63.4	62.2			1.90
	Clothianidin	81.5	68.2	67.4			1.24
	Dinotefuran	77.5	92.5	84.3			9.27
	Diuron	54.1	40.8	40.4			0.957
	Endothall	94.9	114	110			4.07
	Fenuron	91.8	79.0	79.1			0.169
	Fluridone	70.6	69.9	70.9			1.35
	Glufosinate	97.7	95.4	108			12.0
	Glyphosate	80.5	80.9	97.1			18.2
	Hydrocodone	84.0	102	99.1			2.42
	Ibuprofen	43.9	34.4	40.6			16.5
	Imazapyr	65.0	55.9	49.7			10.5
	Imidacloprid	91.7	105	112			6.57
	Linuron	52.7	55.3	58.8			6.07
	Mandestrobin	72.6	66.6	69.7			4.65
	MCPP	74.4	71.5	64.6			10.2
	Naproxen	43.6	35.1	33.0			6.07
	Primidone	71.5	73.0	69.3			5.31
	Pyraclostrobin	70.2	68.0	69.4			2.08
	Sucralose	103	99.9	103			2.10
	Thiamethoxam	84.0	107	105			1.59
	Tolfenpyrad	43.7	47.7	43.3			9.60
	Triclopyr	61.0	64.7	66.3			2.48
SM 2120 B-2011	Color (true)	100				0.867	
	Color (true)	99.9				0.0735	
SM 2320 B-2011	Total Alkalinity	97.1				2.04	
SM 2540 C-2011	TDS					2.34	
	TDS					4.84	
SM 4500 F-C-2011	Fluoride	97.4	96.8	95.7			0.924
SM 5310 B-2011	Organic Carbon	99.1	102	106			2.68

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2212170, 2212171, 2212172, 2212179
EPA 300.0 Rev. 2.1	Bromide in aqueous matrices	2212170, 2212171, 2212172
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2212170, 2212171, 2212172, 2212179
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2212170, 2212171, 2212172, 2212179
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2212173, 2212174, 2212175, 2212180
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2212173, 2212174, 2212175, 2212180
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2212173, 2212174, 2212175, 2212180
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2212173, 2212174, 2212175, 2212180
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2212176, 2212177, 2212178, 2212181
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2212192
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2212192
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2212170, 2212171, 2212172, 2212179
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2212170, 2212171, 2212172, 2212179
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2212170, 2212171, 2212172, 2212179
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2212170, 2212171, 2212172, 2212179
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2212170, 2212171, 2212172, 2212179
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2212173, 2212174, 2212175, 2212180

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	12/10/2020			12/10/2020 14:23	Yen Ta	2212170, 2212171, 2212172, 2212179
EPA 300.0 Rev. 2.1	12/10/2020			12/11/2020 17:13	Lipi Saha	2212170
	12/10/2020			12/11/2020 17:44	Lipi Saha	2212170
	12/10/2020			12/11/2020 17:56	Lipi Saha	2212171
	12/10/2020			12/11/2020 18:08	Lipi Saha	2212172
	12/10/2020			12/11/2020 18:21	Lipi Saha	2212179
	12/10/2020			12/11/2020 18:26	Lipi Saha	2212172
EPA 350.1 Rev. 2.0	12/10/2020			12/13/2020 16:47	Ping Hua	2212180
	12/10/2020			12/16/2020 17:20	Ping Hua	2212173
	12/10/2020			12/16/2020 17:23	Ping Hua	2212175
	12/10/2020			12/16/2020 18:21	Ping Hua	2212174
EPA 351.2 Rev. 2.0	12/10/2020	12/16/2020 12:33	David Boose	12/17/2020 19:41	Julia Storbeck	2212180
	12/10/2020	12/16/2020 12:33	David Boose	12/17/2020 19:54	Julia Storbeck	2212173
	12/10/2020	12/16/2020 12:33	David Boose	12/17/2020 19:56	Julia Storbeck	2212174
	12/10/2020	12/16/2020 12:33	David Boose	12/17/2020 19:57	Julia Storbeck	2212175
EPA 353.2 Rev. 2.0	12/10/2020			12/11/2020 10:41	Beverly Y. Sanders	2212173
	12/10/2020			12/11/2020 10:43	Beverly Y. Sanders	2212174
	12/10/2020			12/11/2020 10:50	Beverly Y. Sanders	2212175
	12/10/2020			12/11/2020 10:56	Beverly Y. Sanders	2212180
EPA 365.1 Rev. 2.0	12/10/2020	12/14/2020 17:37	Shengyu Wang	12/17/2020 12:55	Benjamin T. Nordmann	2212173
	12/10/2020	12/14/2020 17:37	Shengyu Wang	12/17/2020 12:56	Benjamin T. Nordmann	2212174
	12/10/2020	12/14/2020 17:37	Shengyu Wang	12/17/2020 12:57	Benjamin T. Nordmann	2212175
	12/10/2020	12/14/2020 17:37	Shengyu Wang	12/18/2020 11:25	Shengyu Wang	2212180
EPA 365.1 Rev. 2.0 dissolved	12/10/2020			12/10/2020 15:01	Blanca Fach	2212176, 2212177
	12/10/2020			12/10/2020 15:07	Blanca Fach	2212181
	12/10/2020			12/10/2020 15:47	Blanca Fach	2212178
EPA 8321B	12/10/2020	12/11/2020 11:30	Rebecca Ware	12/11/2020 22:39	Rebecca Ware	2212192
	12/10/2020	12/11/2020 11:30	Rebecca Ware	12/15/2020 15:36	Rebecca Ware	2212192
	12/10/2020	12/15/2020 08:30	Hoor Shaik	12/20/2020 15:39	Juyoung Kim	2212192
SM 2120 B-2011	12/10/2020			12/10/2020 15:22	Benjamin T. Nordmann	2212170
	12/10/2020			12/10/2020 15:23	Benjamin T. Nordmann	2212172
	12/10/2020			12/10/2020 15:24	Benjamin T. Nordmann	2212179
	12/10/2020			12/10/2020 15:43	Benjamin T. Nordmann	2212171
SM 2320 B-2011	12/10/2020			12/22/2020 00:36	Dale L. Simmons	2212170
	12/10/2020			12/22/2020 00:46	Dale L. Simmons	2212171
	12/10/2020			12/22/2020 00:56	Dale L. Simmons	2212172
	12/10/2020			12/22/2020 01:04	Dale L. Simmons	2212179
SM 2540 C-2011	12/10/2020			12/14/2020 14:56	Yijie Li	2212170, 2212171, 2212172, 2212179
SM 2540 D-2011	12/10/2020			12/14/2020 15:56	Yijie Li	2212170, 2212171, 2212172, 2212179
SM 4500 F-C-2011	12/10/2020			12/11/2020 17:52	Dale L. Simmons	2212172

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 4500 F-C-2011	12/10/2020			12/11/2020 20:01	Dale L. Simmons	2212170
	12/10/2020			12/11/2020 20:13	Dale L. Simmons	2212171
	12/10/2020			12/11/2020 20:23	Dale L. Simmons	2212179
SM 5310 B-2011	12/10/2020			12/14/2020 16:17	Touraj Touran	2212173
	12/10/2020			12/14/2020 17:08	Touraj Touran	2212174
	12/10/2020			12/14/2020 19:14	Touraj Touran	2212175
	12/10/2020			12/14/2020 19:27	Touraj Touran	2212180