

Chemical Analysis Report

TLH-ROC-2021-08-03-02

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

Event Description: **Run 12**
Request ID: **RQ-2021-07-26-60**
Customer: **TLH-ROC**
Project ID: **SMP**

Send Reports to:
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2600 Blair Stone Rd
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Certified by: Liang Lin, Environmental Administrator

Date Certified: 26-AUG-2021 14:28

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: Parker Creek @ Park

Collection Date/Time: 08/03/2021 10:50

Field ID: G3TLHR0040

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2266806	EPA 180.1 Rev. 2.0	Turbidity	4.9		NTU	P401995	
	EPA 300.0 Rev. 2.1	Chloride	8.3		mg Cl/L	P402411	
		Sulfate	13		mg SO4/L	P402414	
	SM 2120 B-2011	Color (true)	54	A	PCU	P402001	
	SM 2320 B-2011	Total Alkalinity	31		mg CaCO3/L	P402031	
	SM 2540 C-2011	TDS	80		mg/L	P402433	
	SM 2540 D-2011	TSS	3	I	mg/L	P402191	
	SM 4500 F-C-2011	Fluoride	0.092	I	mg F/L	P402036	
2266807	EPA 350.1 Rev. 2.0	Ammonia-N	0.026		mg N/L	P402266	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.32		mg N/L	P402687	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.080		mg N/L	P402103	
	EPA 365.1 Rev. 2.0	Total-P	0.030		mg P/L	P402119	
	SM 5310 B-2011	Organic Carbon	6.7		mg C/L	P402489	
2266808	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.01	I	mg P/L	P401902	
2266824	EPA 8321B	2,4-D	0.13		ug/L	P401979	
		Acesulfame K	0.10	U	ug/L	P401884	
		2,4,5-T	0.0040	U	ug/L	P401979	
		AMPA	0.13	I	ug/L	P401884	
		Acetaminophen	0.0080	U	ug/L	P401979	
		Acetamiprid	0.0020	U	ug/L	P401979	
		Endothall	0.25	U	ug/L	P401884	
		Glufosinate	0.10	U	ug/L	P401884	
		Glyphosate	0.18	I	ug/L	P401884	
		Afidopyropen	0.0020	U	ug/L	P401979	
		Bentazon	0.030		ug/L	P401979	
		Sucralose	0.15		ug/L	P401884	
		Benzovindiflupyr	0.0020	U	ug/L	P401979	
		Carbamazepine	8.0E-04	U	ug/L	P401979	
		Clothianidin	0.0020	U	ug/L	P401979	
		Dinotefuran	0.0043	I	ug/L	P401979	
		Diuron	0.020		ug/L	P401979	
		Fenuron	0.016	U	ug/L	P401979	
		Fluridone	8.0E-04	U	ug/L	P401979	
		Imazapyr	0.015	I	ug/L	P401979	
		Hydrocodone	0.0020	U	ug/L	P401979	
		Ibuprofen	0.020	U	ug/L	P401979	
		Imidacloprid	0.040		ug/L	P401979	
		Linuron	0.0040	U	ug/L	P401979	
		Mandestrobin	0.0020	U	ug/L	P401979	
		MCP	0.022		ug/L	P401979	
		Naproxen	0.0080	U	ug/L	P401979	
		Primidone	0.0040	U	ug/L	P401979	
		Pyraclostrobin	0.0020	U	ug/L	P401979	

Field ID: G3TLHR0040

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2266824	EPA 8321B	Thiamethoxam	0.0025	I	ug/L	P401979	
		Tolfenpyrad	0.0020	U	ug/L	P401979	
		Triclopyr	0.0040	U	ug/L	P401979	

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: Watson Bayou South

Collection Date/Time: 08/03/2021 10:15

Field ID: G3TLHR0006

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2266812	EPA 180.1 Rev. 2.0	Turbidity	1.4		NTU	P401995	
	SM 2320 B-2011	Total Alkalinity	81		mg CaCO3/L	P402116	RPD
	SM 2540 D-2011	TSS	3	IA	mg/L	P402195	
	SM 4500 F-C-2011	Fluoride	0.72		mg F/L	P402220	
2266813	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P402124	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.55		mg N/L	P402686	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P402161	
	EPA 365.1 Rev. 2.0	Total-P	0.023		mg P/L	P402185	
	SM 5310 B-2011	Organic Carbon	8.0		mg C/L	P402251	
2266814	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P401903	

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: Parker Bayou @ Mouth

Collection Date/Time: 08/03/2021 11:15

Field ID: G3TLHR0043

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2266809	EPA 180.1 Rev. 2.0	Turbidity	3.3		NTU	P401995	
	SM 2320 B-2011	Total Alkalinity	38	AJ	mg CaCO3/L	P402116	RPD
	SM 2540 D-2011	TSS	6	I	mg/L	P402195	
	SM 4500 F-C-2011	Fluoride	0.29		mg F/L	P402220	
2266810	EPA 350.1 Rev. 2.0	Ammonia-N	0.063		mg N/L	P402124	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.69		mg N/L	P402686	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.013		mg N/L	P402161	
	EPA 365.1 Rev. 2.0	Total-P	0.031		mg P/L	P402185	
	SM 5310 B-2011	Organic Carbon	16		mg C/L	P402469	
2266811	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.005	I	mg P/L	P401903	

Ref. Method and Comment:

SM 2320 B-2011: Refer to the Lab Analysis Report for an explanation of QC Codes.

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P401995

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P402411

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P402414

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402124

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402266

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402686

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402687

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P402103

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P402161

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: P402119

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P402185

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P401902

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P401903

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

Reference Method: EPA 8321B
Batch ID: P401884

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: P401979

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P401979

Component	Result	Code	Units
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCP	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: SM 2120 B-2011

Batch ID: P402001

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011

Batch ID: P402031

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

Reference Method: SM 2320 B-2011

Batch ID: P402116

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

Reference Method: SM 2540 C-2011

Batch ID: P402433

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011

Batch ID: P402191

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011

Batch ID: P402195

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-2011

Batch ID: P402036

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 4500 F-C-2011
Batch ID: P402220

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P402251

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

Reference Method: SM 5310 B-2011
Batch ID: P402469

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

Reference Method: SM 5310 B-2011
Batch ID: P402489

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: P402411

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	97.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P402414

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	97.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P402124

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

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P402266

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

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P402686

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

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P402687

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	99.1		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P402103

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

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P402161

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: P402119

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P402185

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P401902

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P401903

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

Reference Method: EPA 8321B
 Batch ID: P401884

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	113		P	40 - 150
AMPA	100		P	40 - 150
Endothall	87.3		P	40 - 150
Glufosinate	95.9		P	40 - 150
Glyphosate	102		P	40 - 150
Sucralose	95.0		P	40 - 150

Reference Method: EPA 8321B
 Batch ID: P401979

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	129		P	40 - 150
2,4,5-T	130		P	40 - 150
Acetaminophen	105		P	30 - 150
Acetamiprid	106		P	40 - 150
Afidopyropen	93.0		P	40 - 150
Bentazon	137		P	30 - 150
Benzovindiflupyr	115		P	40 - 150
Carbamazepine	107		P	40 - 150
Clothianidin	85.5		P	40 - 150
Dinotefuran	111		P	40 - 150
Diuron	106		P	40 - 150
Fenuron	107		P	40 - 150
Fluridone	125		P	40 - 150
Hydrocodone	105		P	40 - 150
Ibuprofen	92.0		P	40 - 150
Imazapyr	130		P	40 - 150
Imidacloprid	108		P	40 - 150
Linuron	95.9		P	40 - 150
Mandestrobin	125		P	40 - 150
MCPP	131		P	40 - 150
Naproxen	103		P	40 - 150
Primidone	97.1		P	40 - 150
Pyraclostrobin	107		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P401979

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Thiamethoxam	108		P	40 - 150
Tolfenpyrad	57.2		P	30 - 150
Triclopyr	124		P	40 - 150

Reference Method: SM 2120 B-2011
Batch ID: P402001

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.3		P	85 - 115

Reference Method: SM 2320 B-2011
Batch ID: P402031

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	94 - 106

Reference Method: SM 2320 B-2011
Batch ID: P402116

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

Reference Method: SM 4500 F-C-2011
Batch ID: P402036

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.4		P	93 - 104

Reference Method: SM 4500 F-C-2011
Batch ID: P402220

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	102		P	93 - 104

Reference Method: SM 5310 B-2011
Batch ID: P402251

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.6		P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P402469

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.5		P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P402489

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.3		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P402411

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266208	Chloride	95.5		P	90 - 110
2266490	Chloride	97.5		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P402414

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266208	Sulfate	95.3		P	90 - 110
2266490	Sulfate	97.3		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402124

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267909	Ammonia-N	102	106	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402266

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266807	Ammonia-N	98.8	99.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402686

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266962	Kjeldahl Nitrogen	107	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402687

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266807	Kjeldahl Nitrogen	103	98.9	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P402103

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266807	NO2NO3-N	99.6	99.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P402161

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266810	NO2NO3-N	96.6	96.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P402119

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267815	Total-P	107	106	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P402185

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266771	Total-P	97.0	97.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P401902

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266808	O-Phosphate-P	98.7	97.7	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P401903

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266814	O-Phosphate-P	95.6	99.0	P/P	90 - 110

Reference Method: EPA 8321B

Batch ID: P401884

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266516	Acesulfame K	125	111	P/P	40 - 150
2266516	AMPA	110	116	P/P	40 - 150
2266516	Endothall	92.6	91.0	P/P	40 - 150
2266516	Glufosinate	131	129	P/P	40 - 150
2266516	Glyphosate	110	109	P/P	40 - 150
2266516	Sucralose	95.7	95.6	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P401979

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267099	2,4-D	112	122	P/P	40 - 150
2267099	2,4,5-T	117	122	P/P	40 - 150
2267099	Acetaminophen	132	104	P/P	30 - 150
2267099	Acetamiprid	93.8	95.3	P/P	40 - 150
2267099	Afidopyropen	84.1	78.2	P/P	40 - 150
2267099	Bentazon	89.2	95.3	P/P	30 - 150
2267099	Benzovindiflupyr	94.9	95.0	P/P	40 - 150
2267099	Carbamazepine	98.2	104	P/P	40 - 150
2267099	Clothianidin	71.0	88.7	P/P	40 - 150
2267099	Dinotefuran	123	121	P/P	40 - 150
2267099	Diuron	84.1	86.2	P/P	40 - 150
2267099	Fenuron	82.3	88.7	P/P	40 - 150
2267099	Fluridone	103	103	P/P	40 - 150
2267099	Hydrocodone	94.7	102	P/P	40 - 150
2267099	Ibuprofen	78.7	78.5	P/P	40 - 150
2267099	Imazapyr	124	99.2	P/P	40 - 150
2267099	Imidacloprid	110	106	P/P	40 - 150
2267099	Linuron	78.9	81.3	P/P	40 - 150
2267099	Mandestrobin	102	105	P/P	40 - 150
2267099	MCPP	126	131	P/P	40 - 150
2267099	Naproxen	94.4	93.2	P/P	40 - 150
2267099	Primidone	89.7	88.9	P/P	40 - 150
2267099	Pyraclostrobin	90.1	95.4	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P401979

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267099	Thiamethoxam	111	126	P/P	40 - 150
2267099	Tolfenpyrad	51.1	56.4	P/P	30 - 150
2267099	Triclopyr	113	121	P/P	40 - 150

Reference Method: SM 4500 F-C-2011
Batch ID: P402036

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266796	Fluoride	97.9	97.9	P/P	92 - 107

Reference Method: SM 4500 F-C-2011
Batch ID: P402220

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267987	Fluoride	99.6	99.6	P/P	92 - 107

Reference Method: SM 5310 B-2011
Batch ID: P402251

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265394	Organic Carbon	94.2	96.6	P/P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P402469

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266962	Organic Carbon	95.6	94.9	P/P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P402489

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266484	Organic Carbon	97.0	96.7	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P401995

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266796	Turbidity	3.31	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P402411

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266208	Chloride	1.19	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P402414

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266208	Sulfate	1.63	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402124

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267909	Ammonia-N	2.16	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402266

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266807	Ammonia-N	0.664	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402686

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266962	Kjeldahl Nitrogen	5.58	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402687

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266807	Kjeldahl Nitrogen	3.18	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P402103

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266807	NO2NO3-N	0.0	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P402161

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266810	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P402119

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267815	Total-P	1.22	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P402185

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266771	Total-P	0.0248	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P401902

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266808	O-Phosphate-P	0.929	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P401903

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266814	O-Phosphate-P	3.49	Spike	P	0 - 20

Reference Method: EPA 8321B

Batch ID: P401884

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266516	Acesulfame K	12.1	Spike	P	0 - 30
2266516	AMPA	5.11	Spike	P	0 - 30
2266516	Endothall	1.71	Spike	P	0 - 30
2266516	Glufosinate	1.41	Spike	P	0 - 30
2266516	Glyphosate	0.594	Spike	P	0 - 30
2266516	Sucralose	0.170	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P401979

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267099	2,4-D	6.04	Spike	P	0 - 30
2267099	2,4,5-T	4.43	Spike	P	0 - 30
2267099	Acetaminophen	16.3	Spike	P	0 - 30
2267099	Acetamidrid	1.55	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8321B

Batch ID: P401979

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267099	Afidopyropen	7.21	Spike	P	0 - 30
2267099	Bentazon	2.85	Spike	P	0 - 30
2267099	Benzovindiflupyr	0.146	Spike	P	0 - 30
2267099	Carbamazepine	5.31	Spike	P	0 - 30
2267099	Clothianidin	16.2	Spike	P	0 - 30
2267099	Dinotefuran	1.54	Spike	P	0 - 30
2267099	Diuron	1.68	Spike	P	0 - 30
2267099	Fenuron	7.48	Spike	P	0 - 30
2267099	Fluridone	0.141	Spike	P	0 - 30
2267099	Hydrocodone	7.01	Spike	P	0 - 30
2267099	Ibuprofen	0.212	Spike	P	0 - 30
2267099	Imazapyr	9.78	Spike	P	0 - 30
2267099	Imidacloprid	1.66	Spike	P	0 - 30
2267099	Linuron	3.02	Spike	P	0 - 30
2267099	Mandestrobin	2.01	Spike	P	0 - 30
2267099	MCPP	3.27	Spike	P	0 - 30
2267099	Naproxen	1.24	Spike	P	0 - 30
2267099	Primidone	0.895	Spike	P	0 - 30
2267099	Pyraclostrobin	5.69	Spike	P	0 - 30
2267099	Thiamethoxam	8.84	Spike	P	0 - 30
2267099	Tolfenpyrad	9.89	Spike	P	0 - 30
2267099	Triclopyr	6.61	Spike	P	0 - 30

Reference Method: SM 2120 B-2011

Batch ID: P402001

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266806	Color (true)	3.13	Sample	P	0 - 20

Reference Method: SM 2320 B-2011

Batch ID: P402031

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266796	Total Alkalinity	2.15	Sample	P	0 - 5.2

Reference Method: SM 2320 B-2011

Batch ID: P402116

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266809	Total Alkalinity	5.30	Sample	F	0 - 5.2

Reference Method: SM 2540 C-2011

Batch ID: P402433

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267075	TDS	4.36	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 4500 F-C-2011
Batch ID: P402036

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266796	Fluoride	0.0	Spike	P	0 - 2.1

Reference Method: SM 4500 F-C-2011
Batch ID: P402220

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267987	Fluoride	0.0	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
Batch ID: P402251

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265394	Organic Carbon	2.19	Spike	P	0 - 20

Reference Method: SM 5310 B-2011
Batch ID: P402469

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266962	Organic Carbon	0.636	Spike	P	0 - 20

Reference Method: SM 5310 B-2011
Batch ID: P402489

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266484	Organic Carbon	0.212	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2266824

Field Sample ID: G3TLHR0040

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	124	P	30 - 160
EPA 8321B	Acetaminophen-d4	64.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	110	P	30 - 160
EPA 8321B	Diuron-d6	79.4	P	30 - 160
EPA 8321B	Endothall-d6	91.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	82.8	P	30 - 160
EPA 8321B	Ibuprofen-d3	80.5	P	30 - 160
EPA 8321B	Primidone-d5	81.8	P	30 - 160
EPA 8321B	Sucralose-d6	108	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A107006

Included Lab Sample IDs: 2266808, 2266811, 2266814

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.5	97.7	P/P	90 - 110
O-Phosphate-P	98.7	98.8	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A107046

Included Lab Sample IDs: 2266806, 2266809, 2266812

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.5	100	P/P	95 - 105

Reference Method: SM 2120 B-2011

Run ID: A107047

Included Lab Sample IDs: 2266806

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.2	98.5	P/P	90 - 115

Reference Method: EPA 8321B

Run ID: A107050

Included Lab Sample IDs: 2266824

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	114	104	P/P	60 - 160
Endothall	85.9	69.8	P/P	60 - 160
Sucralose	97.7	93.2	P/P	60 - 160

Reference Method: SM 2320 B-2011

Run ID: A107058

Included Lab Sample IDs: 2266806

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.9	103	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A107058

Included Lab Sample IDs: 2266806

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

Reference Method: EPA 8321B

Run ID: A107073

Included Lab Sample IDs: 2266824

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	105	106	P/P	60 - 160
Glufosinate	104	108	P/P	60 - 160
Glyphosate	106	106	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A107091

Included Lab Sample IDs: 2266807

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

Reference Method: SM 2320 B-2011

Run ID: A107093

Included Lab Sample IDs: 2266809, 2266812

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A107098

Included Lab Sample IDs: 2266810, 2266813

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.6	98.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A107114

Included Lab Sample IDs: 2266810, 2266813

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

Reference Method: EPA 8321B

Run ID: A107122

Included Lab Sample IDs: 2266824

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	98.7	95.6	P/P	50 - 150
2,4,5-T	104	94.7	P/P	50 - 150
Acetaminophen	113	104	P/P	60 - 160
Acetamiprid	108	108	P/P	50 - 150
Afidopyropen	113	109	P/P	50 - 150
Bentazon	128	123	P/P	50 - 160
Benzovindiflupyr	119	117	P/P	50 - 150
Carbamazepine	109	107	P/P	60 - 150
Clothianidin	91.0	88.3	P/P	60 - 150
Dinotefuran	112	112	P/P	50 - 150
Diuron	114	116	P/P	60 - 160
Fenuron	109	107	P/P	60 - 150
Fluridone	126	120	P/P	60 - 160
Hydrocodone	112	109	P/P	60 - 150
Ibuprofen	112	105	P/P	50 - 160
Imazapyr	121	124	P/P	50 - 150
Imidacloprid	99.6	98.3	P/P	60 - 150
Linuron	93.5	104	P/P	60 - 150
Mandestrobin	125	122	P/P	50 - 150
MCPP	91.6	90.2	P/P	50 - 150
Naproxen	95.5	87.4	P/P	50 - 160
Primidone	90.7	90.6	P/P	60 - 150
Pyraclostrobin	121	117	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A107122
Included Lab Sample IDs: 2266824

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Thiamethoxam	112	109	P/P	50 - 150
Tolfenpyrad	105	103	P/P	60 - 150
Triclopyr	99.3	94.7	P/P	50 - 150

Reference Method: SM 4500 F-C-2011
Run ID: A107130
Included Lab Sample IDs: 2266809, 2266812

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A107137
Included Lab Sample IDs: 2266807, 2266810, 2266813

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	97.2	99.5	P/P	90 - 110
Total-P	99.8	99.2	P/P	90 - 110

Reference Method: SM 5310 B-2011
Run ID: A107149
Included Lab Sample IDs: 2266813

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.5	97.6	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A107154
Included Lab Sample IDs: 2266807

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.6	99.4	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A107166
Included Lab Sample IDs: 2266806

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.8	99.1	P/P	90 - 110
Sulfate	98.3	98.7	P/P	90 - 110

Reference Method: SM 5310 B-2011
Run ID: A107246
Included Lab Sample IDs: 2266810

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.9	97.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-2011

Run ID: A107256

Included Lab Sample IDs: 2266807

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.8	98.7	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A107374

Included Lab Sample IDs: 2266807, 2266810, 2266813

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	94.6	97.0	P/P	90 - 110
Kjeldahl Nitrogen	95.5	94.6	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					3.31	
EPA 300.0 Rev. 2.1	Chloride	97.7	95.5	97.5		1.19	
	Sulfate	97.0	95.3	97.3		1.63	
EPA 350.1 Rev. 2.0	Ammonia-N	103	102	106			2.16
	Ammonia-N	101	98.8	99.8			0.664
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	97.8	107	101			5.58
	Kjeldahl Nitrogen	99.1	103	98.9			3.18
EPA 353.2 Rev. 2.0	NO2NO3-N	99.5	99.6	99.6			0.0
	NO2NO3-N	100	96.6	96.6			0.0
EPA 365.1 Rev. 2.0	Total-P	106	107	106			1.22
	Total-P	106	97.0	97.0			0.0248
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	102	98.7	97.7			0.929
	O-Phosphate-P	100	95.6	99.0			3.49
EPA 8321B	2,4-D	129	112	122			6.04
	2,4,5-T	130	117	122			4.43
	Acesulfame K	113	125	111			12.1
	Acetaminophen	105	132	104			16.3
	Acetamiprid	106	93.8	95.3			1.55
	Afidopyropen	93.0	84.1	78.2			7.21
	AMPA	100	110	116			5.11
	Bentazon	137	89.2	95.3			2.85
	Benzovindiflupyr	115	94.9	95.0			0.146
	Carbamazepine	107	98.2	104			5.31
	Clothianidin	85.5	71.0	88.7			16.2
	Dinotefuran	111	123	121			1.54
	Diuron	106	84.1	86.2			1.68
	Endothall	87.3	92.6	91.0			1.71
	Fenuron	107	82.3	88.7			7.48
	Fluridone	125	103	103			0.141
	Glufosinate	95.9	131	129			1.41
	Glyphosate	102	110	109			0.594
	Hydrocodone	105	94.7	102			7.01
	Ibuprofen	92.0	78.7	78.5			0.212
	Imazapyr	130	124	99.2			9.78
	Imidacloprid	108	110	106			1.66
	Linuron	95.9	78.9	81.3			3.02
	Mandestrobin	125	102	105			2.01
	MCPP	131	126	131			3.27
	Naproxen	103	94.4	93.2			1.24
	Primidone	97.1	89.7	88.9			0.895
	Pyraclostrobin	107	90.1	95.4			5.69
	Sucralose	95.0	95.7	95.6			0.170
	Thiamethoxam	108	111	126			8.84
	Tolfenpyrad	57.2	51.1	56.4			9.89
	Triclopyr	124	113	121			6.61
SM 2120 B-2011	Color (true)	98.3				3.13	
SM 2320 B-2011	Total Alkalinity	103				2.15	
	Total Alkalinity	103				5.30	
SM 2540 C-2011	TDS					4.36	
SM 4500 F-C-2011	Fluoride	98.4	97.9	97.9			0.0
	Fluoride	102	99.6	99.6			0.0
SM 5310 B-2011	Organic Carbon	97.6	94.2	96.6			2.19
	Organic Carbon	97.5	95.6	94.9			0.636
	Organic Carbon	98.3	97.0	96.7			0.212

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2266806, 2266809, 2266812
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2266806
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2266806
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2266807, 2266810, 2266813
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2266807, 2266810, 2266813
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2266807, 2266810, 2266813
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2266807, 2266810, 2266813
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2266808, 2266811, 2266814
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2266824
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2266806
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2266806, 2266809, 2266812
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2266806
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2266806, 2266809, 2266812
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2266806, 2266809, 2266812
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2266807, 2266810, 2266813

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	08/03/2021			08/04/2021 15:23	Sarah A Nixon	2266806, 2266809, 2266812
EPA 300.0 Rev. 2.1	08/03/2021			08/11/2021 16:14	Lipi Saha	2266806
EPA 350.1 Rev. 2.0	08/03/2021			08/06/2021 14:46	Roberta Tatti	2266810
	08/03/2021			08/06/2021 14:48	Roberta Tatti	2266813
	08/03/2021			08/10/2021 13:27	Ping Hua	2266807
EPA 351.2 Rev. 2.0	08/03/2021	08/19/2021 13:47	Benjamin T. Nordmann	08/20/2021 14:53	Virginia P. Brown	2266810
	08/03/2021	08/19/2021 13:47	Benjamin T. Nordmann	08/20/2021 14:55	Virginia P. Brown	2266813
	08/03/2021	08/19/2021 13:47	Benjamin T. Nordmann	08/20/2021 15:11	Virginia P. Brown	2266807
EPA 353.2 Rev. 2.0	08/03/2021			08/06/2021 09:30	Beverly Y. Sanders	2266807
	08/03/2021			08/09/2021 09:01	Beverly Y. Sanders	2266810
	08/03/2021			08/09/2021 09:07	Beverly Y. Sanders	2266813
EPA 365.1 Rev. 2.0	08/03/2021	08/09/2021 14:57	Simonne.V. Calhoun	08/10/2021 09:49	Shengyu Ding	2266807
	08/03/2021	08/09/2021 14:57	Simonne.V. Calhoun	08/10/2021 10:19	Shengyu Ding	2266810
	08/03/2021	08/09/2021 14:57	Simonne.V. Calhoun	08/10/2021 10:20	Shengyu Ding	2266813
EPA 365.1 Rev. 2.0 dissolved	08/03/2021			08/03/2021 16:07	Patrick M. Roche	2266808
	08/03/2021			08/03/2021 16:52	Patrick M. Roche	2266814
	08/03/2021			08/03/2021 16:55	Patrick M. Roche	2266811
EPA 8321B	08/03/2021	08/04/2021 13:15	Juyoung Kim	08/04/2021 15:47	Juyoung Kim	2266824
	08/03/2021	08/04/2021 13:15	Juyoung Kim	08/05/2021 13:02	Juyoung Kim	2266824
	08/03/2021	08/06/2021 09:00	Hoor Shaik	08/07/2021 11:03	Juyoung Kim	2266824
SM 2120 B-2011	08/03/2021			08/04/2021 15:50	Sarah A Nixon	2266806
SM 2320 B-2011	08/03/2021			08/04/2021 18:11	Dale L. Simmons	2266806
	08/03/2021			08/05/2021 22:36	Dale L. Simmons	2266809
	08/03/2021			08/05/2021 22:50	Dale L. Simmons	2266812
SM 2540 C-2011	08/03/2021			08/06/2021 15:32	Yijie Li	2266806
SM 2540 D-2011	08/03/2021			08/06/2021 15:32	Yijie Li	2266806, 2266809, 2266812
SM 4500 F-C-2011	08/03/2021			08/04/2021 18:11	Dale L. Simmons	2266806
	08/03/2021			08/09/2021 23:00	Sarah A Nixon	2266809
	08/03/2021			08/09/2021 23:16	Sarah A Nixon	2266812
SM 5310 B-2011	08/03/2021			08/10/2021 08:43	Madeline Gruver	2266813
	08/03/2021			08/12/2021 12:35	Madeline Gruver	2266810
	08/03/2021			08/14/2021 01:10	Touraj Touran	2266807