

Chemical Analysis Report

SW-DIST-2022-11-15-01

Florida DEP Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

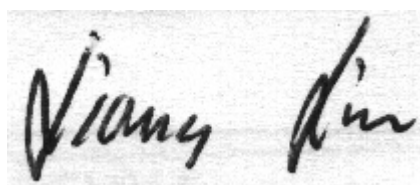
Event Description: **SMP Run 17**
Request ID: **RQ-2022-11-14-05**
Customer: **SW-DIST**
Project ID: **SMP**

Send Reports to:
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Temple Terrace, FL 33637-0926
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Certified by: Liang Lin, Environmental Administrator

Date Certified: 07-DEC-2022 14:42

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: Snug Harbor- TP428

Collection Date/Time: 11/14/2022 10:35

Field ID: G1SW0099

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2369370	EPA 8321B	2,4-D	0.0032	I	ug/L	P422538	
		Acesulfame K	0.10	U	ug/L	P422312	
		2,4,5-T	0.0040	U	ug/L	P422538	
		AMPA	1.0	U	ug/L	P422312	
		Acetaminophen	0.0080	U	ug/L	P422538	
		Endothall	0.25	U	ug/L	P422312	
		Acetamiprid	0.0020	U	ug/L	P422538	MS
		Glufosinate	1.0	U	ug/L	P422312	
		Glyphosate	1.0	U	ug/L	P422312	MS
		Afidopyropen	0.0020	U	ug/L	P422538	
		Bentazon	0.012		ug/L	P422538	
		Sucralose	1.1		ug/L	P422312	
		Benzovindiflupyr	0.0020	U	ug/L	P422538	
		Carbamazepine	0.0011	I	ug/L	P422538	
		Clothianidin	0.0020	U	ug/L	P422538	MS
		Dinotefuran	0.0020	U	ug/L	P422538	
		Diuron	0.065		ug/L	P422538	
		Fenuron	0.032	U	ug/L	P422538	
		Fluridone	0.0052		ug/L	P422538	
		Imazapyr	0.062		ug/L	P422538	
		Hydrocodone	0.0020	U	ug/L	P422538	
		Ibuprofen	0.20	U	ug/L	P422538	
		Imidacloprid	0.0038	I	ug/L	P422538	
		Linuron	0.0040	U	ug/L	P422538	
		Mandestrobin	0.0020	U	ug/L	P422538	
		MCPP	0.0040	U	ug/L	P422538	
		Naproxen	0.0080	U	ug/L	P422538	
		Primidone	0.0050	I	ug/L	P422538	
		Pyraclostrobin	0.0020	U	ug/L	P422538	
		Silvex	0.0040	U	ug/L	P422538	
		Thiamethoxam	0.0020	U	ug/L	P422538	
		Tolfenpyrad	0.0020	U	ug/L	P422538	
		Triclopyr	0.0040	U	ug/L	P422538	

Ref. Method and Comment:

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

EPA 8321B: MS accuracy for sucralose could not be assessed due to high concentration of parameter in the spiked sample. Some MDLs are elevated due to required dilution of sample matrix.

Sample Location: Snug Harbor near Getaway

Collection Date/Time: 11/14/2022 11:00

Field ID: G1SW0109

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2369349	EPA 180.1 Rev. 2.0	Turbidity	4.5		NTU	P422351	
	SM 2320 B-2011	Total Alkalinity	109		mg CaCO3/L	P422622	
	SM 2540 D-2015	TSS	10		mg/L	P422708	
	SM 4500-F- C-2011	Fluoride	1.0		mg F/L	P422965	
2369350	EPA 350.1 Rev. 2.0	Ammonia-N	0.070		mg N/L	P422913	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.61		mg N/L	P422540	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.032		mg N/L	P422580	
	EPA 365.1 Rev. 2.0	Total-P	0.089		mg P/L	P422442	
	SM 5310 B-2011	Organic Carbon	5.7		mg C/L	P422617	
2369351	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.054		mg P/L	P422349	

Ref. Method and Comment:

SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Gamble Creek West Branch @ CR 675

Collection Date/Time: 11/14/2022 12:00

Field ID: G2SW0156

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2369352	EPA 180.1 Rev. 2.0	Turbidity	4.0		NTU	P422351	
	SM 2320 B-2011	Total Alkalinity	37		mg CaCO3/L	P422640	
	SM 2540 D-2015	TSS	4	I	mg/L	P422705	
2369353	EPA 350.1 Rev. 2.0	Ammonia-N	0.061		mg N/L	P422987	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.5		mg N/L	P422453	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.21		mg N/L	P422485	
	EPA 365.1 Rev. 2.0	Total-P	0.65		mg P/L	P422441	
	SM 5310 B-2011	Organic Carbon	28		mg C/L	P422752	
2369354	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.53		mg P/L	P422348	

Ref. Method and Comment:

SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Gamble Creek West Branch @ CR 675

Collection Date/Time: 11/14/2022 12:00

Field ID: G2SW0156

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2369371	EPA 8321B	2,4-D	0.010		ug/L	P422538	
		Acesulfame K	0.10	U	ug/L	P422312	
		2,4,5-T	0.0040	U	ug/L	P422538	
		AMPA	0.48		ug/L	P422312	
		Acetaminophen	0.0080	U	ug/L	P422538	
		Endothall	0.25	U	ug/L	P422312	
		Acetamiprid	0.0020	U	ug/L	P422538	MS
		Glufosinate	0.10	U	ug/L	P422312	
		Glyphosate	1.3		ug/L	P422312	MS
		Afidopyropen	0.0020	U	ug/L	P422538	
		Bentazon	0.36		ug/L	P422538	
		Sucralose	0.27		ug/L	P422312	
		Benzovindiflupyr	0.0020	U	ug/L	P422538	
		Carbamazepine	8.0E-04	U	ug/L	P422538	
		Clothianidin	0.0084		ug/L	P422538	MS
		Dinotefuran	0.20		ug/L	P422538	
		Diuron	0.0020	U	ug/L	P422538	
		Fenuron	0.032	U	ug/L	P422538	
		Fluridone	0.018		ug/L	P422538	
		Imazapyr	0.25		ug/L	P422538	
		Hydrocodone	0.0020	U	ug/L	P422538	
		Ibuprofen	0.20	U	ug/L	P422538	
		Imidacloprid	0.036		ug/L	P422538	
		Linuron	0.0040	U	ug/L	P422538	
		Mandestrobin	0.0020	U	ug/L	P422538	
		MCPP	0.0040	U	ug/L	P422538	
		Naproxen	0.0080	U	ug/L	P422538	
		Primidone	0.0040	U	ug/L	P422538	
		Pyraclostrobin	0.0020	U	ug/L	P422538	
		Silvex	0.0040	U	ug/L	P422538	
		Thiamethoxam	0.028		ug/L	P422538	
		Tolfenpyrad	0.0020	U	ug/L	P422538	
		Triclopyr	0.0040	U	ug/L	P422538	

Ref. Method and Comment:

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

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

Sample Location: Gamble Creek @ CR 675

Collection Date/Time: 11/14/2022 12:25

Field ID: G2SW0140

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2369372	EPA 8321B	2,4-D	0.0044	I	ug/L	P422538	
		Acesulfame K	0.10	U	ug/L	P422312	
		2,4,5-T	0.0040	U	ug/L	P422538	
		AMPA	1.9		ug/L	P422312	
		Acetaminophen	0.0080	U	ug/L	P422538	
		Endothall	0.25	U	ug/L	P422312	
		Acetamiprid	0.0020	U	ug/L	P422538	MS
		Glufosinate	0.10	U	ug/L	P422312	
		Glyphosate	2.5		ug/L	P422312	MS
		Afidopyropen	0.0020	U	ug/L	P422538	
		Bentazon	1.0		ug/L	P422538	
		Sucralose	0.022	I	ug/L	P422312	
		Benzovindiflupyr	0.013		ug/L	P422538	
		Carbamazepine	8.0E-04	U	ug/L	P422538	
		Clothianidin	0.011		ug/L	P422538	MS
		Dinotefuran	0.36		ug/L	P422538	
		Diuron	0.0020	U	ug/L	P422538	
		Fenuron	0.032	U	ug/L	P422538	
		Fluridone	0.0014	I	ug/L	P422538	
		Imazapyr	0.032		ug/L	P422538	
		Hydrocodone	0.0020	U	ug/L	P422538	
		Ibuprofen	0.20	U	ug/L	P422538	
		Imidacloprid	0.16		ug/L	P422538	
		Linuron	0.0040	U	ug/L	P422538	
		Mandestrobin	0.0020	U	ug/L	P422538	
		MCPP	0.0040	U	ug/L	P422538	
		Naproxen	0.0080	U	ug/L	P422538	
		Primidone	0.0040	U	ug/L	P422538	
		Pyraclostrobin	0.0020	U	ug/L	P422538	
		Silvex	0.0040	U	ug/L	P422538	
		Thiamethoxam	0.048		ug/L	P422538	
		Tolfenpyrad	0.0020	U	ug/L	P422538	
		Triclopyr	0.0040	U	ug/L	P422538	

Ref. Method and Comment:

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

EPA 8321B: MS accuracy for sucralose 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: P422351

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P422913

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P422987

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P422453

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P422540

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P422485

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P422580

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P422441

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P422442

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P422348

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P422349

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

Reference Method: EPA 8321B
Batch ID: P422312

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: P422538

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	0.032	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.20	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	0.0040	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Silvex	0.0040	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: SM 2320 B-2011
Batch ID: P422622

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

Reference Method: SM 2320 B-2011
Batch ID: P422640

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

Reference Method: SM 2540 D-2015
Batch ID: P422705

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P422708

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P422965

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P422617

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

Reference Method: SM 5310 B-2011
Batch ID: P422752

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P422351

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	99.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P422913

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P422987

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P422453

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P422540

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P422485

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P422580

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P422441

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P422442

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P422348

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	97.9		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P422349

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

Reference Method: EPA 8321B
Batch ID: P422312

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	124		P	40 - 150
AMPA	117		P	40 - 150
Endothall	97.3		P	40 - 150
Glufosinate	113		P	40 - 150
Glyphosate	114		P	40 - 150
Sucralose	101		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P422538

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	110		P	40 - 150
2,4,5-T	81.0		P	40 - 150
Acetaminophen	84.5		P	30 - 150
Acetamiprid	81.1		P	40 - 150
Afidopyropen	58.9		P	30 - 150
Bentazon	78.2		P	30 - 150
Benzovindiflupyr	77.2		P	40 - 150
Carbamazepine	78.0		P	40 - 150
Clothianidin	88.4		P	40 - 150
Dinotefuran	87.5		P	40 - 150
Diuron	72.0		P	40 - 150
Fenuron	101		P	40 - 150
Fluridone	88.2		P	40 - 150
Hydrocodone	92.3		P	40 - 150
Ibuprofen	81.4		P	40 - 150
Imazapyr	80.6		P	40 - 150
Imidacloprid	96.6		P	40 - 150
Linuron	69.4		P	40 - 150
Mandestrobin	85.6		P	40 - 150
MCPP	99.7		P	40 - 150
Naproxen	78.4		P	40 - 150
Primidone	92.2		P	40 - 150
Pyraclostrobin	72.1		P	40 - 150
Silvex	84.0		P	40 - 150
Thiamethoxam	92.8		P	40 - 150
Tolfenpyrad	37.7		P	30 - 150
Triclopyr	86.1		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P422622

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.2		P	94 - 106

Reference Method: SM 2320 B-2011
Batch ID: P422640

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	96.8		P	94 - 106

Reference Method: SM 2540 D-2015
Batch ID: P422705

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	91.5		P	85 - 106

Reference Method: SM 2540 D-2015
Batch ID: P422708

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	91.1		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P422965

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	102		P	96 - 104

Reference Method: SM 5310 B-2011
Batch ID: P422617

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.2		P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P422752

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P422913

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2367750	Ammonia-N	98.8	99.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P422987

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2371628	Ammonia-N	100	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P422453

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2369211	Kjeldahl Nitrogen	98.9	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P422540

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2369521	Kjeldahl Nitrogen	94.4	96.2	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P422485

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2369182	NO2NO3-N	103	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P422580

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2369224	NO2NO3-N	106	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P422441

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2369341	Total-P	104	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P422442

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2369472	Total-P	99.0	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P422348

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2369306	O-Phosphate-P	98.0	97.1	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P422349

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2369351	O-Phosphate-P	99.3	98.5	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P422312

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2369532	Acesulfame K	135	139	P/P	40 - 150
2369532	AMPA	100	103	P/P	40 - 150
2369532	Endothall	99.2	101	P/P	40 - 150
2369532	Glufosinate	128	116	P/P	40 - 150
2369532	Glyphosate	156	143	F/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P422538

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2369273	2,4-D	105	100	P/P	40 - 150
2369273	2,4,5-T	73.2	62.7	P/P	40 - 150
2369273	Acetaminophen	86.0	87.0	P/P	30 - 150
2369273	Acetamiprid	25.2	25.4	F/F	40 - 150
2369273	Afidopyropen	71.7	71.4	P/P	30 - 150
2369273	Benzovindiflupyr	73.4	77.2	P/P	40 - 150
2369273	Clothianidin	18.3	10.5	F/F	40 - 150
2369273	Diuron	46.2	44.5	P/P	40 - 150
2369273	Fenuron	82.6	77.6	P/P	40 - 150
2369273	Fluridone	75.4	74.9	P/P	40 - 150
2369273	Hydrocodone	106	106	P/P	40 - 150
2369273	Ibuprofen	74.2	78.1	P/P	40 - 150
2369273	Imazapyr	126	124	P/P	40 - 150
2369273	Linuron	76.1	76.9	P/P	40 - 150
2369273	Mandestrobin	81.0	80.7	P/P	40 - 150
2369273	MCPP	79.6	73.3	P/P	40 - 150
2369273	Naproxen	78.0	84.4	P/P	40 - 150
2369273	Pyraclostrobin	80.1	81.0	P/P	40 - 150
2369273	Silvex	94.9	84.1	P/P	40 - 150
2369273	Thiamethoxam	122	122	P/P	40 - 150
2369273	Tolfenpyrad	54.3	56.4	P/P	30 - 150
2369273	Triclopyr	67.5	68.2	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P422965

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2369410	Fluoride	100	102	P/P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P422617

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2368330	Organic Carbon	88.1	88.5	P/P	85 - 115

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P422752

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2369219	Organic Carbon	95.3	95.9	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P422351

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2369210	Turbidity	9.02	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P422913

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2367750	Ammonia-N	0.735	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P422987

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2371628	Ammonia-N	0.641	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P422453

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2369211	Kjeldahl Nitrogen	3.27	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P422540

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2369521	Kjeldahl Nitrogen	1.68	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P422485

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2369182	NO2NO3-N	0.454	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P422580

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2369224	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P422441

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2369341	Total-P	0.0241	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P422442

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2369472	Total-P	2.22	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P422348

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2369306	O-Phosphate-P	0.848	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P422349

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2369351	O-Phosphate-P	0.523	Spike	P	0 - 20

Reference Method: EPA 8321B

Batch ID: P422312

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2369532	Acesulfame K	3.32	Spike	P	0 - 30
2369532	AMPA	2.85	Spike	P	0 - 30
2369532	Endothall	1.69	Spike	P	0 - 30
2369532	Glufosinate	10.1	Spike	P	0 - 30
2369532	Glyphosate	8.22	Spike	P	0 - 30
2369532	Sucralose	6.61	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P422538

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2369273	2,4-D	3.22	Spike	P	0 - 30
2369273	2,4,5-T	15.5	Spike	P	0 - 30
2369273	Acetaminophen	1.17	Spike	P	0 - 30
2369273	Acetamiprid	0.268	Spike	P	0 - 30
2369273	Afidopyropen	0.392	Spike	P	0 - 30
2369273	Bentazon	5.65	Spike	P	0 - 30
2369273	Benzovindiflupyr	5.05	Spike	P	0 - 30
2369273	Carbamazepine	4.33	Spike	P	0 - 30
2369273	Clothianidin	7.07	Spike	P	0 - 30
2369273	Dinotefuran	3.04	Spike	P	0 - 30
2369273	Diuron	3.34	Spike	P	0 - 30
2369273	Fenuron	6.21	Spike	P	0 - 30
2369273	Fluridone	0.650	Spike	P	0 - 30
2369273	Hydrocodone	0.0742	Spike	P	0 - 30
2369273	Ibuprofen	5.11	Spike	P	0 - 30
2369273	Imazapyr	1.28	Spike	P	0 - 30
2369273	Imidacloprid	2.04	Spike	P	0 - 30
2369273	Linuron	1.02	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P422538

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2369273	Mandestrobin	0.314	Spike	P	0 - 30
2369273	MCP	4.86	Spike	P	0 - 30
2369273	Naproxen	7.87	Spike	P	0 - 30
2369273	Primidone	3.57	Spike	P	0 - 30
2369273	Pyraclostrobin	1.14	Spike	P	0 - 30
2369273	Silvex	12.0	Spike	P	0 - 30
2369273	Thiamethoxam	0.177	Spike	P	0 - 30
2369273	Tolfenpyrad	3.84	Spike	P	0 - 30
2369273	Triclopyr	1.05	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P422622

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2369410	Total Alkalinity	0.356	Sample	P	0 - 3.8

Reference Method: SM 2320 B-2011
Batch ID: P422640

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2369236	Total Alkalinity	0.521	Sample	P	0 - 3.8

Reference Method: SM 4500-F- C-2011
Batch ID: P422965

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2369410	Fluoride	0.986	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P422617

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2368330	Organic Carbon	0.278	Spike	P	0 - 20

Reference Method: SM 5310 B-2011
Batch ID: P422752

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2369219	Organic Carbon	0.472	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2369370

Field Sample ID: G1SW0099

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	140	P	30 - 160
EPA 8321B	Acetaminophen-d4	103	P	30 - 160
EPA 8321B	Carbamazepine-d10	86.8	P	30 - 160
EPA 8321B	Diuron-d6	69.7	P	30 - 160
EPA 8321B	Endothall-d6	57.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	37.9	P	30 - 160
EPA 8321B	Ibuprofen-d3	100	P	30 - 160
EPA 8321B	Primidone-d5	114	P	30 - 160
EPA 8321B	Sucralose-d6	128	P	30 - 160

Lab Sample ID: 2369371

Field Sample ID: G2SW0156

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	117	P	30 - 160
EPA 8321B	Acetaminophen-d4	107	P	30 - 160
EPA 8321B	Carbamazepine-d10	52.8	P	30 - 160
EPA 8321B	Diuron-d6	41.9	P	30 - 160
EPA 8321B	Endothall-d6	100	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	103	P	30 - 160
EPA 8321B	Ibuprofen-d3	70.3	P	30 - 160
EPA 8321B	Primidone-d5	97.9	P	30 - 160
EPA 8321B	Sucralose-d6	109	P	30 - 160

Lab Sample ID: 2369372

Field Sample ID: G2SW0140

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	119	P	30 - 160
EPA 8321B	Acetaminophen-d4	103	P	30 - 160
EPA 8321B	Carbamazepine-d10	60.9	P	30 - 160
EPA 8321B	Diuron-d6	46.4	P	30 - 160
EPA 8321B	Endothall-d6	132	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	90.4	P	30 - 160
EPA 8321B	Ibuprofen-d3	71.6	P	30 - 160
EPA 8321B	Primidone-d5	104	P	30 - 160
EPA 8321B	Sucralose-d6	133	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A115941

Included Lab Sample IDs: 2369351, 2369354

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.1	99.5	P/P	90 - 110
O-Phosphate-P	99.5	99.8	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A115942

Included Lab Sample IDs: 2369349, 2369352

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A115956

Included Lab Sample IDs: 2369353

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

Reference Method: EPA 8321B

Run ID: A115978

Included Lab Sample IDs: 2369370, 2369371, 2369372

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	120	126	P/P	60 - 160
Sucralose	99.3	101	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A115981

Included Lab Sample IDs: 2369370, 2369371, 2369372

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	111	102	P/P	60 - 160
AMPA	94.1	112	P/P	60 - 160
Endothall	101	97.4	P/P	60 - 160
Glufosinate	112	93.4	P/P	60 - 160
Glufosinate	74.8	81.1	P/P	60 - 160
Glyphosate	115	108	P/P	60 - 160
Glyphosate	99.8	106	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A116022

Included Lab Sample IDs: 2369353

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A116026

Included Lab Sample IDs: 2369353

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A116028

Included Lab Sample IDs: 2369350

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	105	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A116040

Included Lab Sample IDs: 2369350

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	103	99.2	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A116048

Included Lab Sample IDs: 2369350

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.0	98.6	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A116055

Included Lab Sample IDs: 2369349

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	96.4	93.3	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A116057

Included Lab Sample IDs: 2369352

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	94.8	98.1	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A116081

Included Lab Sample IDs: 2369370, 2369371, 2369372

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	97.0	97.3	P/P	50 - 150
2,4-D	99.6	97.0	P/P	50 - 150
2,4,5-T	102	112	P/P	50 - 150
2,4,5-T	108	102	P/P	50 - 150
Acetaminophen	105	98.1	P/P	60 - 160
Acetaminophen	98.1	102	P/P	60 - 160
Acetamiprid	106	104	P/P	50 - 150
Acetamiprid	107	106	P/P	50 - 150
Afidopyropen	102	96.3	P/P	50 - 150
Afidopyropen	96.3	95.8	P/P	50 - 150
Bentazon	105	97.3	P/P	50 - 160
Bentazon	96.9	97.4	P/P	50 - 160
Benzovindiflupyr	104	98.1	P/P	50 - 150
Benzovindiflupyr	106	104	P/P	50 - 150
Carbamazepine	105	98.9	P/P	60 - 150
Carbamazepine	108	105	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A116081

Included Lab Sample IDs: 2369370, 2369371, 2369372

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Clothianidin	104	112	P/P	60 - 150
Clothianidin	112	105	P/P	60 - 150
Dinotefuran	103	111	P/P	50 - 150
Dinotefuran	106	103	P/P	50 - 150
Diuron	103	104	P/P	60 - 160
Diuron	108	103	P/P	60 - 160
Fenuron	103	107	P/P	60 - 150
Fenuron	104	103	P/P	60 - 150
Fluridone	103	99.9	P/P	60 - 160
Fluridone	105	103	P/P	60 - 160
Hydrocodone	104	104	P/P	60 - 150
Hydrocodone	104	99.5	P/P	60 - 150
Ibuprofen	141	107	P/P	50 - 160
Ibuprofen	83.6	141	P/P	50 - 160
Imazapyr	102	97.5	P/P	50 - 150
Imazapyr	97.5	102	P/P	50 - 150
Imidacloprid	97.4	106	P/P	60 - 150
Imidacloprid	98.6	97.4	P/P	60 - 150
Linuron	115	99.8	P/P	60 - 150
Linuron	99.8	103	P/P	60 - 150
Mandestrobin	106	108	P/P	50 - 150
Mandestrobin	109	106	P/P	50 - 150
MCPP	103	106	P/P	50 - 150
MCPP	112	103	P/P	50 - 150
Naproxen	103	127	P/P	50 - 160
Naproxen	108	103	P/P	50 - 160
Primidone	106	100	P/P	60 - 150
Primidone	93.9	106	P/P	60 - 150
Pyraclostrobin	103	105	P/P	60 - 150
Pyraclostrobin	105	104	P/P	60 - 150
Silvex	98.3	100	P/P	50 - 150
Silvex	100	104	P/P	50 - 150
Thiamethoxam	103	99.6	P/P	50 - 150
Thiamethoxam	99.6	100	P/P	50 - 150
Tolfenpyrad	101	99.7	P/P	60 - 150
Tolfenpyrad	99.7	104	P/P	60 - 150
Triclopyr	112	114	P/P	50 - 150
Triclopyr	114	114	P/P	50 - 150

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A116085

Included Lab Sample IDs: 2369350

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	93.4	91.8	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A116127

Included Lab Sample IDs: 2369353

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
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Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-2011

Run ID: A116127

Included Lab Sample IDs: 2369353

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.8	98.6	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A116189

Included Lab Sample IDs: 2369350

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.9	99.1	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A116202

Included Lab Sample IDs: 2369349

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A116209

Included Lab Sample IDs: 2369353

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.0	99.0	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 SMP	MS
EPA 180.1 Rev. 2.0	Turbidity	99.4				9.02	
EPA 350.1 Rev. 2.0	Ammonia-N	99.8	98.8	99.8			0.735
	Ammonia-N	98.4	100	101			0.641
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	98.9	98.9	103			3.27
	Kjeldahl Nitrogen	94.5	94.4	96.2			1.68
EPA 353.2 Rev. 2.0	NO2NO3-N	104	103	103			0.454
	NO2NO3-N	104	106	106			0.0
EPA 365.1 Rev. 2.0	Total-P	103	104	104			0.0241
	Total-P	103	99.0	101			2.22
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.9	98.0	97.1			0.848
	O-Phosphate-P	99.0	99.3	98.5			0.523
EPA 8321B	2,4-D	110	105	100			3.22
	2,4,5-T	81.0	73.2	62.7			15.5
	Acesulfame K	124	135	139			3.32
	Acetaminophen	84.5	86.0	87.0			1.17
	Acetamiprid	81.1	25.2	25.4			0.268
	Afidopyropen	58.9	71.7	71.4			0.392
	AMPA	117	100	103			2.85
	Bentazon	78.2					5.65
	Benzovindiflupyr	77.2	73.4	77.2			5.05
	Carbamazepine	78.0					4.33
	Clothianidin	88.4	18.3	10.5			7.07
	Dinotefuran	87.5					3.04
	Diuron	72.0	46.2	44.5			3.34
	Endothall	97.3	99.2	101			1.69
	Fenuron	101	82.6	77.6			6.21
	Fluridone	88.2	75.4	74.9			0.650
	Glufosinate	113	128	116			10.1
	Glyphosate	114	156	143			8.22
	Hydrocodone	92.3	106	106			0.0742
	Ibuprofen	81.4	74.2	78.1			5.11
	Imazapyr	80.6	126	124			1.28
	Imidacloprid	96.6					2.04
	Linuron	69.4	76.1	76.9			1.02
	Mandestrobin	85.6	81.0	80.7			0.314
	MCPP	99.7	79.6	73.3			4.86
	Naproxen	78.4	78.0	84.4			7.87
	Primidone	92.2					3.57
	Pyraclostrobin	72.1	80.1	81.0			1.14
	Silvex	84.0	94.9	84.1			12.0
	Sucralose	101					6.61
	Thiamethoxam	92.8	122	122			0.177
	Tolfenpyrad	37.7	54.3	56.4			3.84
	Triclopyr	86.1	67.5	68.2			1.05
SM 2320 B-2011	Total Alkalinity	97.2				0.356	
	Total Alkalinity	96.8				0.521	
SM 2540 D-2015	TSS	91.5					
	TSS	91.1					
SM 4500-F- C-2011	Fluoride	102	100	102			0.986
SM 5310 B-2011	Organic Carbon	99.2	88.1	88.5			0.278
	Organic Carbon	96.7	95.3	95.9			0.472

Reference Method Descriptions

Method	Description	<u>Associated Samples</u>
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2369349, 2369352
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2369350, 2369353
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2369350, 2369353
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2369350, 2369353
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2369350, 2369353
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2369351, 2369354
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2369370, 2369371, 2369372
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2369349, 2369352
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2369349, 2369352
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2369349
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2369350, 2369353

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	11/15/2022			11/15/2022 14:26	Anna M. Plaviak	2369349
	11/15/2022			11/15/2022 14:27	Anna M. Plaviak	2369352
EPA 350.1 Rev. 2.0	11/15/2022			11/29/2022 11:06	Ping Hua	2369350
	11/15/2022			12/01/2022 12:37	Ping Hua	2369353
EPA 351.2 Rev. 2.0	11/15/2022	11/17/2022 10:30	Samantha L Bates	11/18/2022 09:19	Samantha L Bates	2369353
	11/15/2022	11/18/2022 10:00	Alexandra J Mattheus	11/21/2022 17:39	Judith K. Clark	2369350
EPA 353.2 Rev. 2.0	11/15/2022			11/16/2022 12:00	Beverly Y. Sanders	2369353
	11/15/2022			11/18/2022 11:30	Beverly Y. Sanders	2369350
EPA 365.1 Rev. 2.0	11/15/2022	11/17/2022 13:57	Adam P Silver	11/18/2022 09:48	James L Waggeberby	2369353
	11/15/2022	11/17/2022 13:57	Adam P Silver	11/18/2022 15:03	Simonne.V. Calhoun	2369350
EPA 365.1 Rev. 2.0 dissolved	11/15/2022			11/15/2022 15:19	Elise M. Gillis	2369354
	11/15/2022			11/15/2022 15:34	Elise M. Gillis	2369351
EPA 8321B	11/15/2022	11/16/2022 12:00	Umesh Chiluwal	11/16/2022 13:32	Umesh Chiluwal	2369370
	11/15/2022	11/16/2022 12:00	Umesh Chiluwal	11/16/2022 13:45	Umesh Chiluwal	2369371
	11/15/2022	11/16/2022 12:00	Umesh Chiluwal	11/16/2022 13:58	Umesh Chiluwal	2369372
	11/15/2022	11/16/2022 12:00	Umesh Chiluwal	11/16/2022 17:26	Umesh Chiluwal	2369370
	11/15/2022	11/16/2022 12:00	Umesh Chiluwal	11/17/2022 01:13	Umesh Chiluwal	2369370
	11/15/2022	11/16/2022 12:00	Umesh Chiluwal	11/17/2022 01:28	Umesh Chiluwal	2369371
	11/15/2022	11/16/2022 12:00	Umesh Chiluwal	11/17/2022 01:43	Umesh Chiluwal	2369372
	11/15/2022	11/18/2022 09:30	June Rhew	11/21/2022 17:00	Juyoung Kim	2369370
	11/15/2022	11/18/2022 09:30	June Rhew	11/21/2022 17:20	Juyoung Kim	2369371
	11/15/2022	11/18/2022 09:30	June Rhew	11/21/2022 18:02	Juyoung Kim	2369372
	11/15/2022	11/18/2022 09:30	June Rhew	11/22/2022 09:40	Juyoung Kim	2369371
	11/15/2022	11/18/2022 09:30	June Rhew	11/22/2022 11:55	Juyoung Kim	2369372
	11/15/2022			11/18/2022 02:35	Dale L. Simmons	2369349
	11/15/2022			11/19/2022 17:14	Dale L. Simmons	2369352
SM 2540 D-2015	11/15/2022			11/18/2022 16:39	Yijie Li	2369349, 2369352
SM 4500-F- C-2011	11/15/2022			12/01/2022 09:23	Dale L. Simmons	2369349
SM 5310 B-2011	11/15/2022			11/19/2022 07:04	Khloe J Berg	2369350
	11/15/2022			11/22/2022 00:26	Khloe J Berg	2369353