

Chemical Analysis Report

SW-DIST-2023-02-08-01

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

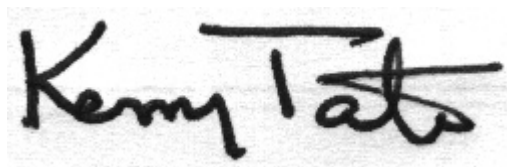
Event Description: **Run 11**
Request ID: **RQ-2023-02-06-50**
Customer: **SW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
13051 N. Telecom Parkway
Temple Terrace, FL 33637-0926
Attn: Devin Mathias

For additional information please contact
Colin Wright, Ph.D.
Chris Bowen, B.S.
Kerry Tate, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 03-MAR-2023 13:44

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line extending from the end of the name.

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: Lake Hanna Outlet @ Livingston Ave.

Collection Date/Time: 02/07/2023 10:25

Field ID: G2SW0143

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2385788	DEP SOP: NU-094-1	Color (true)	67	A	PCU	P425557	
	EPA 180.1 Rev. 2.0	Turbidity	2.4		NTU	P425559	
	EPA 300.0 Rev. 2.1	Chloride	40		mg Cl/L	P426518	
		Sulfate	6.0		mg SO4/L	P426095	
	SM 2320 B-2011	Total Alkalinity	37		mg CaCO3/L	P426047	
	SM 2540 C-2015	TDS	144		mg/L	P426111	
	SM 2540 D-2015	TSS	2	I	mg/L	P426004	
	SM 4500-F- C-2011	Fluoride	0.077	I	mg F/L	P426051	
2385791	EPA 350.1 Rev. 2.0	Ammonia-N	0.24		mg N/L	P426104	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.87		mg N/L	P425571	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.17		mg N/L	P425773	
	EPA 365.1 Rev. 2.0	Total-P	0.051		mg P/L	P425759	
	SM 5310 B-2011	Organic Carbon	12		mg C/L	P425680	
2385794	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.028		mg P/L	P425549	

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: Thirteen Mile Creek @ Vandervort Road

Collection Date/Time: 02/07/2023 10:50

Field ID: G2SW0158

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2385797	DEP SOP: NU-094-1	Color (true)	88		PCU	P425557	
	EPA 180.1 Rev. 2.0	Turbidity	1.6		NTU	P425559	
	EPA 300.0 Rev. 2.1	Chloride	37		mg Cl/L	P426093	
		Sulfate	2.3		mg SO4/L	P426096	
	SM 2320 B-2011	Total Alkalinity	33		mg CaCO3/L	P425851	
	SM 2540 C-2015	TDS	119		mg/L	P426111	
	SM 2540 D-2015	TSS	6	I	mg/L	P426004	
2385798	SM 4500-F- C-2011	Fluoride	0.074	I	mg F/L	P426438	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.019		mg N/L	P426105	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.70		mg N/L	P425573	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.047		mg N/L	P425773	
	EPA 365.1 Rev. 2.0	Total-P	0.047		mg P/L	P425759	
2385799	SM 5310 B-2011	Organic Carbon	13		mg C/L	P425680	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.025		mg P/L	P425549	
2385812	EPA 8321B	2,4-D	0.0020	I	ug/L	P425592	
		Acesulfame K	0.10	U	ug/L	P425414	
		2,4,5-T	0.0040	U	ug/L	P425592	
		AMPA	0.10	U	ug/L	P425414	
		Acetaminophen	0.0080	U	ug/L	P425592	
		Acetamiprid	0.0020	U	ug/L	P425592	
		Endothall	0.25	U	ug/L	P425414	
		Glufosinate	0.10	U	ug/L	P425414	
		Glyphosate	0.10	U	ug/L	P425414	
		Afidopyropen	0.0020	U	ug/L	P425592	
		Bentazon	0.032		ug/L	P425592	
		Sucralose	0.62		ug/L	P425414	
		Benzovindiflupyr	0.0020	U	ug/L	P425592	
		Carbamazepine	8.0E-04	U	ug/L	P425592	
		Clothianidin	0.0020	U	ug/L	P425592	
		Dinotefuran	0.0020	U	ug/L	P425592	
		Diuron	0.0020	U	ug/L	P425592	
		Fenuron	0.032	U	ug/L	P425592	
		Fluridone	0.0022	I	ug/L	P425592	
		Imazapyr	0.044		ug/L	P425592	
		Hydrocodone	0.0020	U	ug/L	P425592	
		Ibuprofen	0.080	U	ug/L	P425592	
		Imidacloprid	0.0020	U	ug/L	P425592	
		Linuron	0.0040	U	ug/L	P425592	
		Mandestrobin	0.0020	U	ug/L	P425592	
		MCPD	0.0020	U	ug/L	P425592	
		Naproxen	0.0080	U	ug/L	P425592	RPD
		Primidone	0.0040	U	ug/L	P425592	
		Pyraclostrobin	0.0020	U	ug/L	P425592	

Field ID: G2SW0158

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2385812	EPA 8321B	Silvex	0.0040	U	ug/L	P425592	
		Thiamethoxam	0.0020	U	ug/L	P425592	
		Tolfenpyrad	0.0020	U	ug/L	P425592	
		Triclopyr	0.0040	U	ug/L	P425592	

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: Twin Lake Outfall @ Newport Avenue

Collection Date/Time: 02/07/2023 11:35

Field ID: G2SW0157

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2385789	DEP SOP: NU-094-1	Color (true)	50		PCU	P425557	
	EPA 180.1 Rev. 2.0	Turbidity	1.3		NTU	P425559	
	EPA 300.0 Rev. 2.1	Chloride	24		mg Cl/L	P426093	
		Sulfate	26		mg SO4/L	P426096	
	SM 2320 B-2011	Total Alkalinity	103		mg CaCO3/L	P426047	
	SM 2540 C-2015	TDS	205		mg/L	P426111	
	SM 2540 D-2015	TSS	2	U	mg/L	P426004	
	SM 4500-F- C-2011	Fluoride	0.12		mg F/L	P426051	
2385792	EPA 350.1 Rev. 2.0	Ammonia-N	0.065		mg N/L	P426105	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.62		mg N/L	P425573	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.41		mg N/L	P425773	
	EPA 365.1 Rev. 2.0	Total-P	0.062		mg P/L	P425759	
	SM 5310 B-2011	Organic Carbon	11		mg C/L	P425680	
2385795	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.040		mg P/L	P425549	

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: Rocky Creek @ Turtle Creek Blvd.

Collection Date/Time: 02/07/2023 12:15

Field ID: G1SW0136

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2385790	DEP SOP: NU-094-1	Color (true)	78		PCU	P425557	
	EPA 180.1 Rev. 2.0	Turbidity	1.9		NTU	P425559	
	EPA 300.0 Rev. 2.1	Chloride	61		mg Cl/L	P426093	
		Sulfate	7.8		mg SO4/L	P426096	
	SM 2320 B-2011	Total Alkalinity	43		mg CaCO3/L	P425851	
	SM 2540 C-2015	TDS	190	A	mg/L	P426111	
	SM 2540 D-2015	TSS	2	IA	mg/L	P426004	
	SM 4500-F- C-2011	Fluoride	0.062	I	mg F/L	P426438	
2385793	EPA 350.1 Rev. 2.0	Ammonia-N	0.028		mg N/L	P426105	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.58		mg N/L	P425573	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.041		mg N/L	P425773	
	EPA 365.1 Rev. 2.0	Total-P	0.055		mg P/L	P425759	
	SM 5310 B-2011	Organic Carbon	14		mg C/L	P425680	
2385796	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.033		mg P/L	P425549	

Ref. Method and Comment:

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

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P425557

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P425559

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426093

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426095

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426096

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426518

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P426104

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P426105

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P425571

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P425573

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P425773

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P425759

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P425549

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

Reference Method: EPA 8321B
Batch ID: P425414

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: P425592

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	0.080	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: P425592

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

Reference Method: SM 2320 B-2011
Batch ID: P425851

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

Reference Method: SM 2320 B-2011
Batch ID: P426047

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

Reference Method: SM 2540 C-2015
Batch ID: P426111

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P426004

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P426051

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 4500-F- C-2011
Batch ID: P426438

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P425680

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: DEP SOP: NU-094-1
Batch ID: P425557

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	103		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P425559

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426093

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426095

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	95.9		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426096

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426518

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P426104

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P426105

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	95.4		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P425571

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P425573

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

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P425773

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

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P425759

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P425549

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

Reference Method: EPA 8321B

Batch ID: P425414

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	134		P	40 - 150
AMPA	95.3		P	40 - 150
Endothall	98.7		P	40 - 150
Glufosinate	112		P	40 - 150
Glyphosate	92.5		P	40 - 150
Sucralose	137		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P425592

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	85.8		P	40 - 150
2,4,5-T	77.3		P	40 - 150
Acetaminophen	83.3		P	30 - 150
Acetamiprid	82.1		P	40 - 150
Afidopyropen	61.5		P	30 - 150
Bentazon	91.0		P	30 - 150
Benzovindiflupyr	84.8		P	40 - 150
Carbamazepine	90.7		P	40 - 150
Clothianidin	94.4		P	40 - 150
Dinotefuran	98.8		P	40 - 150
Diuron	75.7		P	40 - 150
Fenuron	96.1		P	40 - 150
Fluridone	80.2		P	40 - 150
Hydrocodone	86.0		P	40 - 150
Ibuprofen	56.8		P	40 - 150
Imazapyr	83.3		P	40 - 150
Imidacloprid	84.3		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P425592

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Linuron	76.7		P	40 - 150
Mandestrobin	97.8		P	40 - 150
MCPP	97.5		P	40 - 150
Naproxen	63.2		P	40 - 150
Primidone	89.3		P	40 - 150
Pyraclostrobin	78.3		P	40 - 150
Silvex	72.1		P	40 - 150
Thiamethoxam	82.5		P	40 - 150
Tolfenpyrad	44.6		P	30 - 150
Triclopyr	77.2		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P425851

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	100		P	94 - 106

Reference Method: SM 2320 B-2011
Batch ID: P426047

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	95.2		P	94 - 106

Reference Method: SM 2540 C-2015
Batch ID: P426111

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

Reference Method: SM 2540 D-2015
Batch ID: P426004

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	96.5		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P426051

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.6		P	96 - 104

Reference Method: SM 4500-F- C-2011
Batch ID: P426438

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.7		P	96 - 104

Reference Method: SM 5310 B-2011
Batch ID: P425680

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.2		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426093

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2385924	Chloride	93.5		P	90 - 110
2385928	Chloride	96.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426095

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2385219	Sulfate	93.0		P	90 - 110
2385501	Sulfate	99.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426096

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2385924	Sulfate	94.6		P	90 - 110
2385928	Sulfate	99.4		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426518

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2387907	Chloride	97.7		P	90 - 110
2387927	Chloride	99.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P426104

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2385702	Ammonia-N	99.0	98.4	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P426105

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2385507	Ammonia-N	101	98.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P425571

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2385313	Kjeldahl Nitrogen	97.2	89.4	P/F	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P425573

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2385506	Kjeldahl Nitrogen	100	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P425773

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

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P425773

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2385791	NO2NO3-N	100	99.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P425759

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2385703	Total-P	99.5	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P425549

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2385710	O-Phosphate-P	97.4	93.8	P/P	90 - 110

Reference Method: EPA 8321B

Batch ID: P425414

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2385040	Acesulfame K	91.0	86.9	P/P	40 - 150
2385040	AMPA	91.5	95.2	P/P	40 - 150
2385040	Endothall	101	107	P/P	40 - 150
2385040	Glufosinate	110	91.9	P/P	40 - 150
2385040	Glyphosate	104	100	P/P	40 - 150
2385040	Sucralose	134	134	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P425592

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2385435	2,4-D	127	98.5	P/P	40 - 150
2385435	2,4,5-T	111	106	P/P	40 - 150
2385435	Acetaminophen	107	96.4	P/P	30 - 150
2385435	Acetamiprid	96.2	106	P/P	40 - 150
2385435	Afidopyropen	65.1	73.9	P/P	30 - 150
2385435	Bentazon	91.0	88.0	P/P	30 - 150
2385435	Benzovindiflupyr	98.2	92.0	P/P	40 - 150
2385435	Carbamazepine	86.9	84.5	P/P	40 - 150
2385435	Clothianidin	125	116	P/P	40 - 150
2385435	Dinotefuran	122	116	P/P	40 - 150
2385435	Diuron	71.9	65.6	P/P	40 - 150
2385435	Fenuron	87.7	85.7	P/P	40 - 150
2385435	Fluridone	83.6	71.6	P/P	40 - 150
2385435	Hydrocodone	112	102	P/P	40 - 150
2385435	Ibuprofen	79.3	81.3	P/P	40 - 150
2385435	Imazapyr	122	113	P/P	40 - 150
2385435	Imidacloprid	149	131	P/P	40 - 150
2385435	Linuron	96.3	73.0	P/P	40 - 150
2385435	Mandestrobin	111	105	P/P	40 - 150
2385435	MCPP	123	116	P/P	40 - 150
2385435	Naproxen	126	78.6	P/P	40 - 150
2385435	Primidone	114	104	P/P	40 - 150
2385435	Pyraclostrobin	94.3	86.2	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P425592

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2385435	Silvex	86.5	83.6	P/P	40 - 150
2385435	Thiamethoxam	118	111	P/P	40 - 150
2385435	Tolfenpyrad	57.2	49.7	P/P	30 - 150
2385435	Triclopyr	88.3	82.2	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P426051

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2386388	Fluoride	100	101	P/P	94 - 104

Reference Method: SM 4500-F- C-2011
Batch ID: P426438

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2386877	Fluoride	99.5	100	P/P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P425680

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2385792	Organic Carbon	95.2	97.8	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P425557

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2385788	Color (true)	1.32	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P425559

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2385501	Turbidity	1.28	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426093

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2385924	Chloride	3.43	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426095

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2385219	Sulfate	0.829	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426096

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2385924	Sulfate	3.25	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426518

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2387907	Chloride	0.755	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P426104

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2385702	Ammonia-N	0.547	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P426105

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2385507	Ammonia-N	2.47	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P425571

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2385313	Kjeldahl Nitrogen	6.23	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P425573

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2385506	Kjeldahl Nitrogen	3.66	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P425773

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2385791	NO2NO3-N	0.272	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P425759

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2385703	Total-P	0.922	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P425549

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2385710	O-Phosphate-P	3.77	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P425414

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2385040	Acesulfame K	4.72	Spike	P	0 - 30
2385040	AMPA	3.73	Spike	P	0 - 30
2385040	Endothall	5.53	Spike	P	0 - 30
2385040	Glufosinate	17.5	Spike	P	0 - 30
2385040	Glyphosate	3.57	Spike	P	0 - 30
2385040	Sucralose	0.655	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P425592

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2385435	2,4-D	18.6	Spike	P	0 - 30
2385435	2,4,5-T	5.22	Spike	P	0 - 30
2385435	Acetaminophen	10.5	Spike	P	0 - 30
2385435	Acetamiprid	9.76	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P425592

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2385435	Afidopyropen	12.6	Spike	P	0 - 30
2385435	Bentazon	3.34	Spike	P	0 - 30
2385435	Benzovindiflupyr	6.57	Spike	P	0 - 30
2385435	Carbamazepine	2.86	Spike	P	0 - 30
2385435	Clothianidin	7.49	Spike	P	0 - 30
2385435	Dinotefuran	5.58	Spike	P	0 - 30
2385435	Diuron	9.24	Spike	P	0 - 30
2385435	Fenuron	2.26	Spike	P	0 - 30
2385435	Fluridone	15.6	Spike	P	0 - 30
2385435	Hydrocodone	9.17	Spike	P	0 - 30
2385435	Ibuprofen	2.45	Spike	P	0 - 30
2385435	Imazapyr	6.55	Spike	P	0 - 30
2385435	Imidacloprid	12.9	Spike	P	0 - 30
2385435	Linuron	27.5	Spike	P	0 - 30
2385435	Mandestrobin	5.39	Spike	P	0 - 30
2385435	MCPP	6.06	Spike	P	0 - 30
2385435	Naproxen	46.1	Spike	F	0 - 30
2385435	Primidone	9.12	Spike	P	0 - 30
2385435	Pyraclostrobin	8.98	Spike	P	0 - 30
2385435	Silvex	3.48	Spike	P	0 - 30
2385435	Thiamethoxam	6.64	Spike	P	0 - 30
2385435	Tolfenpyrad	14.1	Spike	P	0 - 30
2385435	Triclopyr	7.10	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P425851

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2385932	Total Alkalinity	0.531	Sample	P	0 - 3.8

Reference Method: SM 2320 B-2011
Batch ID: P426047

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386388	Total Alkalinity	0.190	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2015
Batch ID: P426111

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2385790	TDS	7.87	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P426051

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386388	Fluoride	0.487	Spike	P	0 - 1.6

Quality Assurance Report Precision

Reference Method: SM 4500-F- C-2011
Batch ID: P426438

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386877	Fluoride	0.480	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P425680

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2385792	Organic Carbon	1.79	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2385812

Field Sample ID: G2SW0158

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	104	P	30 - 160
EPA 8321B	Acetaminophen-d4	103	P	30 - 160
EPA 8321B	Carbamazepine-d10	69.3	P	30 - 160
EPA 8321B	Diuron-d6	54.6	P	30 - 160
EPA 8321B	Endothall-d6	65.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	110	P	30 - 160
EPA 8321B	Ibuprofen-d3	90.9	P	30 - 160
EPA 8321B	Primidone-d5	92.7	P	30 - 160
EPA 8321B	Sucralose-d6	122	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A117330

Included Lab Sample IDs: 2385794, 2385795, 2385796, 2385799

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.0	98.8	P/P	90 - 110
O-Phosphate-P	99.6	100	P/P	90 - 110

Reference Method: DEP SOP: NU-094-1

Run ID: A117332

Included Lab Sample IDs: 2385788, 2385789, 2385790, 2385797

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	102	104	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A117333

Included Lab Sample IDs: 2385788, 2385789, 2385790, 2385797

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

Reference Method: EPA 8321B

Run ID: A117380

Included Lab Sample IDs: 2385812

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	125	120	P/P	60 - 160
Sucralose	137	131	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A117382

Included Lab Sample IDs: 2385812

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	90.2	90.6	P/P	60 - 160
Endothall	70.1	95.5	P/P	60 - 160
Glufosinate	84.4	87.9	P/P	60 - 160
Glyphosate	93.6	96.1	P/P	60 - 160

Reference Method: SM 5310 B-2011

Run ID: A117394

Included Lab Sample IDs: 2385791, 2385792, 2385793, 2385798

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.7	98.0	P/P	90 - 110
Organic Carbon	98.0	99.3	P/P	90 - 110
Organic Carbon	99.3	100	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A117405

Included Lab Sample IDs: 2385812

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	103	103	P/P	50 - 150
2,4,5-T	116	107	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A117405
Included Lab Sample IDs: 2385812

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetaminophen	100	102	P/P	60 - 160
Acetamiprid	103	104	P/P	50 - 150
Afidopyropen	82.2	90.2	P/P	50 - 150
Bentazon	65.1	88.5	P/P	50 - 160
Benzovindiflupyr	110	106	P/P	50 - 150
Carbamazepine	116	111	P/P	60 - 150
Clothianidin	105	102	P/P	60 - 150
Dinotefuran	104	101	P/P	50 - 150
Diuron	105	113	P/P	60 - 160
Fenuron	94.3	94.7	P/P	60 - 150
Fluridone	84.9	110	P/P	60 - 160
Hydrocodone	97.7	105	P/P	60 - 150
Ibuprofen	86.0	104	P/P	50 - 160
Imazapyr	92.1	94.9	P/P	50 - 150
Imidacloprid	88.0	91.0	P/P	60 - 150
Linuron	104	97.7	P/P	60 - 150
Mandestrobin	112	106	P/P	50 - 150
MCPP	119	110	P/P	50 - 150
Naproxen	108	84.0	P/P	50 - 160
Primidone	97.1	99.2	P/P	60 - 150
Pyraclostrobin	112	109	P/P	60 - 150
Silvex	114	104	P/P	50 - 150
Thiamethoxam	92.3	93.3	P/P	50 - 150
Tolfenpyrad	106	104	P/P	60 - 150
Triclopyr	96.7	93.1	P/P	50 - 150

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A117406
Included Lab Sample IDs: 2385791

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	104	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A117410
Included Lab Sample IDs: 2385792, 2385793, 2385798

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.0	99.0	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A117426
Included Lab Sample IDs: 2385789, 2385790, 2385797

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	97.0	97.9	P/P	90 - 110
Sulfate	100	101	P/P	90 - 110
Sulfate	101	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A117432

Included Lab Sample IDs: 2385791, 2385792, 2385793, 2385798

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

Reference Method: SM 2320 B-2011

Run ID: A117452

Included Lab Sample IDs: 2385790, 2385797

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	96.9	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A117466

Included Lab Sample IDs: 2385792, 2385793

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A117469

Included Lab Sample IDs: 2385791, 2385798

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	96.8	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A117530

Included Lab Sample IDs: 2385788, 2385789

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	96.4	94.9	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A117530

Included Lab Sample IDs: 2385788, 2385789

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A117546

Included Lab Sample IDs: 2385791, 2385792, 2385793, 2385798

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	99.1	P/P	90 - 110
Ammonia-N	99.9	99.6	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A117687

Included Lab Sample IDs: 2385788

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	96.0	96.8	P/P	90 - 110

Quality Assurance Report

Calibration Verification

Reference Method: SM 4500-F- C-2011

Run ID: A117689

Included Lab Sample IDs: 2385790, 2385797

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	101	100	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		Precision	
					LCS	MS
DEP SOP: NU-094-1	Color (true)	103			1.32	
EPA 180.1 Rev. 2.0	Turbidity	100			1.28	
EPA 300.0 Rev. 2.1	Chloride	99.2	93.5	96.8	3.43	
	Chloride	98.7	97.7	99.0	0.755	
	Sulfate	95.9	93.0	99.7	0.829	
	Sulfate	102	94.6	99.4	3.25	
EPA 350.1 Rev. 2.0	Ammonia-N	96.8	99.0	98.4		0.547
	Ammonia-N	95.4	101	98.0		2.47
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	100	97.2	89.4		6.23
	Kjeldahl Nitrogen	103	100	104		3.66
EPA 353.2 Rev. 2.0	NO2NO3-N	102	100	99.5		0.272
EPA 365.1 Rev. 2.0	Total-P	101	99.5	101		0.922
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	102	97.4	93.8		3.77
EPA 8321B	2,4-D	85.8	127	98.5		18.6
	2,4,5-T	77.3	111	106		5.22
	Acesulfame K	134	91.0	86.9		4.72
	Acetaminophen	83.3	107	96.4		10.5
	Acetamiprid	82.1	96.2	106		9.76
	Afidopyropen	61.5	65.1	73.9		12.6
	AMPA	95.3	91.5	95.2		3.73
	Bentazon	91.0	91.0	88.0		3.34
	Benzovindiflupyr	84.8	98.2	92.0		6.57
	Carbamazepine	90.7	86.9	84.5		2.86
	Clothianidin	94.4	125	116		7.49
	Dinotefuran	98.8	122	116		5.58
	Diuron	75.7	71.9	65.6		9.24
	Endothall	98.7	101	107		5.53
	Fenuron	96.1	87.7	85.7		2.26
	Fluridone	80.2	83.6	71.6		15.6
	Glufosinate	112	110	91.9		17.5
	Glyphosate	92.5	104	100		3.57
	Hydrocodone	86.0	112	102		9.17
	Ibuprofen	56.8	79.3	81.3		2.45
	Imazapyr	83.3	122	113		6.55
	Imidacloprid	84.3	149	131		12.9
	Linuron	76.7	96.3	73.0		27.5
	Mandestrobin	97.8	111	105		5.39
	MCPP	97.5	123	116		6.06
	Naproxen	63.2	126	78.6		46.1
	Primidone	89.3	114	104		9.12
	Pyraclostrobin	78.3	94.3	86.2		8.98
	Silvex	72.1	86.5	83.6		3.48
	Sucralose	137	134	134		0.655
	Thiamethoxam	82.5	118	111		6.64
	Tolfenpyrad	44.6	57.2	49.7		14.1
	Triclopyr	77.2	88.3	82.2		7.10
SM 2320 B-2011	Total Alkalinity	100			0.531	
	Total Alkalinity	95.2			0.190	
SM 2540 C-2015	TDS	98.9			7.87	
SM 2540 D-2015	TSS	96.5				
SM 4500-F- C-2011	Fluoride	99.6	100	101		0.487
	Fluoride	97.7	99.5	100		0.480
SM 5310 B-2011	Organic Carbon	95.2	95.2	97.8		1.79

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2385788, 2385789, 2385790, 2385797
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2385788, 2385789, 2385790, 2385797
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2385788, 2385789, 2385790, 2385797
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2385788, 2385789, 2385790, 2385797
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2385791, 2385792, 2385793, 2385798
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2385791, 2385792, 2385793, 2385798
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2385791, 2385792, 2385793, 2385798
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2385791, 2385792, 2385793, 2385798
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2385794, 2385795, 2385796, 2385799
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2385812
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2385788, 2385789, 2385790, 2385797
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2385788, 2385789, 2385790, 2385797
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2385788, 2385789, 2385790, 2385797
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2385788, 2385789, 2385790, 2385797
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2385791, 2385792, 2385793, 2385798

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: NU-094-1	02/08/2023			02/08/2023 14:51	Alexis Price	2385788, 2385789
	02/08/2023			02/08/2023 14:52	Alexis Price	2385790
	02/08/2023			02/08/2023 14:53	Alexis Price	2385797
EPA 180.1 Rev. 2.0	02/08/2023			02/08/2023 14:04	Khloe J Berg	2385788
	02/08/2023			02/08/2023 14:05	Khloe J Berg	2385789
	02/08/2023			02/08/2023 14:06	Khloe J Berg	2385790
EPA 300.0 Rev. 2.1	02/08/2023			02/08/2023 14:09	Khloe J Berg	2385797
	02/08/2023			02/17/2023 03:36	Anna M. Plaviak	2385788
	02/08/2023			02/17/2023 06:06	Anna M. Plaviak	2385789
EPA 350.1 Rev. 2.0	02/08/2023			02/17/2023 06:21	Anna M. Plaviak	2385790
	02/08/2023			02/17/2023 06:36	Anna M. Plaviak	2385797
	02/08/2023			02/28/2023 15:40	Judith K. Clark	2385788
EPA 351.2 Rev. 2.0	02/08/2023			02/20/2023 12:02	Ping Hua	2385792
	02/08/2023			02/20/2023 12:04	Ping Hua	2385793
	02/08/2023			02/20/2023 12:05	Ping Hua	2385798
EPA 353.2 Rev. 2.0	02/08/2023			02/20/2023 13:18	Ping Hua	2385791
	02/08/2023	02/09/2023 09:02	Samantha L Bates	02/13/2023 11:20	Samantha L Bates	2385791
	02/08/2023	02/09/2023 09:02	Samantha L Bates	02/13/2023 14:52	Samantha L Bates	2385792
EPA 365.1 Rev. 2.0	02/08/2023	02/09/2023 09:02	Samantha L Bates	02/13/2023 14:54	Samantha L Bates	2385793
	02/08/2023	02/09/2023 09:02	Samantha L Bates	02/13/2023 14:56	Samantha L Bates	2385798
	02/08/2023			02/14/2023 10:11	Beverly Y. Sanders	2385791
EPA 365.1 Rev. 2.0 dissolved	02/08/2023			02/14/2023 10:17	Beverly Y. Sanders	2385792
	02/08/2023			02/14/2023 10:18	Beverly Y. Sanders	2385793
	02/08/2023			02/14/2023 10:19	Beverly Y. Sanders	2385798
EPA 8321B	02/08/2023	02/14/2023 13:21	Adam P Silver	02/15/2023 13:40	Simonne.V. Calhoun	2385792
	02/08/2023	02/14/2023 13:21	Adam P Silver	02/15/2023 13:41	Simonne.V. Calhoun	2385793
	02/08/2023	02/14/2023 13:21	Adam P Silver	02/15/2023 15:34	Simonne.V. Calhoun	2385791
SM 2320 B-2011	02/08/2023			02/15/2023 15:35	Simonne.V. Calhoun	2385798
	02/08/2023			02/08/2023 14:12	Elise M. Gillis	2385794
	02/08/2023			02/08/2023 14:13	Elise M. Gillis	2385795
EPA 8321B	02/08/2023			02/08/2023 14:15	Elise M. Gillis	2385799
	02/08/2023			02/08/2023 14:40	Elise M. Gillis	2385796
	02/08/2023	02/08/2023 16:00	Manjita Shrestha	02/08/2023 22:23	Manjita Shrestha	2385812
SM 2320 B-2011	02/08/2023	02/08/2023 16:00	Manjita Shrestha	02/09/2023 06:49	Manjita Shrestha	2385812
	02/08/2023	02/10/2023 10:00	June Rhew	02/11/2023 01:27	Juyoung Kim	2385812
	02/08/2023	02/10/2023 10:00	June Rhew	02/13/2023 10:52	Juyoung Kim	2385812
SM 2320 B-2011	02/08/2023			02/15/2023 05:50	Dale L. Simmons	2385790
	02/08/2023			02/15/2023 06:01	Dale L. Simmons	2385797
	02/08/2023			02/16/2023 19:25	Chandler E Cox	2385788
	02/08/2023			02/16/2023 19:39	Chandler E Cox	2385789

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2540 C-2015	02/08/2023			02/10/2023 16:01	Yijie Li	2385788, 2385789, 2385790, 2385797
SM 2540 D-2015	02/08/2023			02/10/2023 16:01	Yijie Li	2385788, 2385789, 2385790, 2385797
SM 4500-F- C-2011	02/08/2023			02/16/2023 19:25	Chandler E Cox	2385788
	02/08/2023			02/16/2023 19:39	Chandler E Cox	2385789
	02/08/2023			02/28/2023 04:45	Chandler E Cox	2385790
	02/08/2023			02/28/2023 04:51	Chandler E Cox	2385797
SM 5310 B-2011	02/08/2023			02/10/2023 14:28	Elise M. Gillis	2385792
	02/08/2023			02/10/2023 18:52	Elise M. Gillis	2385791
	02/08/2023			02/10/2023 19:33	Elise M. Gillis	2385793
	02/08/2023			02/10/2023 19:47	Elise M. Gillis	2385798