

Chemical Analysis Report

SW-DIST-2023-04-25-01

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

Event Description: **Run 14**
Request ID: **RQ-2023-04-10-34**
Customer: **SW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
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13051 N. Telecom Parkway
Temple Terrace, FL 33637-0926
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Date Certified: 15-MAY-2023 12:36



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: LITTLE BULLFROG CR DOWNSTREAM OF US 301 BRIDGE **Collection Date/Time: 04/24/2023 10:30**

Field ID: G2SW0162

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2402632	DEP SOP: NU-094-1	Color (true)	47		PCU	P428954	
	EPA 180.1 Rev. 2.0	Turbidity	1.8		NTU	P428972	
	EPA 300.0 Rev. 2.1	Chloride	40		mg Cl/L	P429144	
	SM 2320 B-2011	Total Alkalinity	62		mg CaCO3/L	P429192	
	SM 2540 C-2015	TDS	177		mg/L	P429500	
	SM 2540 D-2015	TSS	3	I	mg/L	P429317	
	SM 4500-F- C-2011	Fluoride	0.19		mg F/L	P429283	
2402633	EPA 350.1 Rev. 2.0	Ammonia-N	0.040		mg N/L	P429140	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.56		mg N/L	P429298	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.077		mg N/L	P429327	
	EPA 365.1 Rev. 2.0	Total-P	0.087		mg P/L	P429153	
	SM 5310 B-2011	Organic Carbon	13		mg C/L	P429190	

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: WOLF BRANCH CANAL AT MANNS HARBOR
DR BOATLIFT**

Collection Date/Time: 04/24/2023 11:15

Field ID: G1SW0092

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2402636	DEP SOP: NU-094-1	Color (true)	6.6		PCU	P428955	
	EPA 180.1 Rev. 2.0	Turbidity	3.2		NTU	P428972	
	EPA 300.0 Rev. 2.1	Chloride	1.3E+04		mg Cl/L	P429144	
	SM 2320 B-2011	Total Alkalinity	104		mg CaCO3/L	P429192	
	SM 2540 C-2015	TDS	2.30E+04		mg/L	P429501	
	SM 2540 D-2015	TSS	6	I	mg/L	P429319	
	SM 4500-F- C-2011	Fluoride	1.0		mg F/L	P429443	
2402637	EPA 350.1 Rev. 2.0	Ammonia-N	0.028		mg N/L	P429254	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.97		mg N/L	P429299	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P429548	
	EPA 365.1 Rev. 2.0	Total-P	0.19		mg P/L	P429308	
	SM 5310 B-2011	Organic Carbon	8.3		mg C/L	P429307	

Ref. Method and Comment:

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

SM 4500-F- C-2011: LFB is unavailable because of analytical difficulties.

Sample Location: WOLF BRANCH CANAL AT MIDDLE OF LAKE Collection Date/Time: 04/24/2023 12:00

Field ID: G1SW0139

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2402634	DEP SOP: NU-094-1	Color (true)	11	A	PCU	P428955	
	EPA 180.1 Rev. 2.0	Turbidity	2.5		NTU	P428972	
	EPA 300.0 Rev. 2.1	Chloride	9.8E+03		mg Cl/L	P429144	
		Sulfate	1.4E+03		mg SO4/L	P429147	
	SM 2320 B-2011	Total Alkalinity	94		mg CaCO3/L	P429192	
	SM 2540 C-2015	TDS	1.71E+04		mg/L	P429501	
	SM 2540 D-2015	TSS	4	I	mg/L	P429319	
	SM 4500-F- C-2011	Fluoride	0.90		mg F/L	P429443	
2402635	EPA 350.1 Rev. 2.0	Ammonia-N	0.01		mg N/L	P429254	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P429299	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.006	I	mg N/L	P429547	
	EPA 365.1 Rev. 2.0	Total-P	0.26		mg P/L	P429002	
	SM 5310 B-2011	Organic Carbon	10		mg C/L	P429307	
2402644	EPA 8321B	2,4-D	0.083		ug/L	P429013	
		Acesulfame K	0.10	U	ug/L	P428982	
		2,4,5-T	0.0040	U	ug/L	P429013	
		AMPA	1.0	U	ug/L	P428982	
		Acetaminophen	0.0080	U	ug/L	P429013	
		Acetamiprid	0.0020	U	ug/L	P429013	
		Endothall	0.25	U	ug/L	P428982	
		Glufosinate	1.0	U	ug/L	P428982	
		Glyphosate	1.0	U	ug/L	P428982	
		Afidopyropen	0.0020	U	ug/L	P429013	
		Bentazon	0.10		ug/L	P429013	
		Sucralose	0.70		ug/L	P428982	
		Benzovindiflupyr	0.0020	U	ug/L	P429013	
		Carbamazepine	8.0E-04	U	ug/L	P429013	
		Clothianidin	0.0020	U	ug/L	P429013	
		Dinotefuran	0.0020	U	ug/L	P429013	
		Diuron	0.0038	I	ug/L	P429013	
		Fenuron	0.032	U	ug/L	P429013	
		Fluridone	0.18		ug/L	P429013	
		Imazapyr	0.015	I	ug/L	P429013	
		Hydrocodone	0.0020	U	ug/L	P429013	
		Ibuprofen	0.080	U	ug/L	P429013	
		Imidacloprid	0.0082		ug/L	P429013	
		Linuron	0.0040	U	ug/L	P429013	
		Mandestrobin	0.0020	U	ug/L	P429013	
		MCP	0.023		ug/L	P429013	
		Naproxen	0.0080	U	ug/L	P429013	
		Primidone	0.0047	I	ug/L	P429013	
		Pyraclostrobin	0.0020	U	ug/L	P429013	
		Silvex	0.0040	U	ug/L	P429013	
		Thiamethoxam	0.0020	U	ug/L	P429013	

Field ID: G1SW0139

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2402644	EPA 8321B	Tolfenpyrad	0.0020	U	ug/L	P429013	
		Triclopyr	0.0040	U	ug/L	P429013	

Ref. Method and Comment:
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
SM 4500-F- C-2011: LFB is unavailable because of analytical difficulties.
EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.
EPA 8321B: Some MDLs are elevated due to required dilution of sample matrix.

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P428954

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: DEP SOP: NU-094-1
Batch ID: P428955

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P428972

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P429144

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P429147

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P429140

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P429254

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P429298

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P429299

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P429327

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P429547

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P429548

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P429002

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P429153

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P429308

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

Reference Method: EPA 8321B
Batch ID: P428982

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: P429013

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P429013

Component	Result	Code	Units
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
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: P429192

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

Reference Method: SM 2540 C-2015

Batch ID: P429500

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-2015

Batch ID: P429501

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015

Batch ID: P429317

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2015

Batch ID: P429319

Component	Result	Code	Units
TSS	3	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 4500-F- C-2011
Batch ID: P429283

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 4500-F- C-2011
Batch ID: P429443

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P429190

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

Reference Method: SM 5310 B-2011
Batch ID: P429307

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: P428954

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	97.3		P	90 - 110

Reference Method: DEP SOP: NU-094-1
Batch ID: P428955

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	97.2		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P428972

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P429144

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P429147

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P429140

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P429254

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P429298

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P429299

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P429327

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P429547

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P429548

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P429002

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P429153

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P429308

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

Reference Method: EPA 8321B
Batch ID: P428982

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	122		P	40 - 150
AMPA	96.2		P	40 - 150
Endothall	80.7		P	40 - 150
Glufosinate	77.6		P	40 - 150
Glyphosate	98.2		P	40 - 150
Sucralose	102		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P429013

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	106		P	40 - 150
2,4,5-T	100		P	40 - 150
Acetaminophen	94.9		P	30 - 150
Acetamiprid	81.7		P	40 - 150
Afidopyropen	66.2		P	30 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P429013

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Bentazon	95.9		P	30 - 150
Benzovindiflupyr	91.6		P	40 - 150
Carbamazepine	98.7		P	40 - 150
Clothianidin	95.4		P	40 - 150
Dinotefuran	99.3		P	40 - 150
Diuron	88.5		P	40 - 150
Fenuron	93.5		P	40 - 150
Fluridone	89.2		P	40 - 150
Hydrocodone	90.7		P	40 - 150
Ibuprofen	93.1		P	40 - 150
Imazapyr	99.5		P	40 - 150
Imidacloprid	86.9		P	40 - 150
Linuron	87.0		P	40 - 150
Mandestrobin	88.0		P	40 - 150
MCPP	109		P	40 - 150
Naproxen	82.6		P	40 - 150
Primidone	92.2		P	40 - 150
Pyraclostrobin	86.0		P	40 - 150
Silvex	96.2		P	40 - 150
Thiamethoxam	97.2		P	40 - 150
Tolfenpyrad	59.4		P	30 - 150
Triclopyr	89.1		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P429192

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	95.8		P	94 - 106

Reference Method: SM 2540 C-2015
Batch ID: P429500

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

Reference Method: SM 2540 C-2015
Batch ID: P429501

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	92.5		P	90 - 110

Reference Method: SM 2540 D-2015
Batch ID: P429317

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	95.3		P	85 - 106

Reference Method: SM 2540 D-2015
Batch ID: P429319

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	93.8		P	85 - 106

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 4500-F- C-2011
Batch ID: P429283

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.8		P	96 - 104

Reference Method: SM 5310 B-2011
Batch ID: P429190

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

Reference Method: SM 5310 B-2011
Batch ID: P429307

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	105		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P429144

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2402616	Chloride	101		P	90 - 110
2402650	Chloride	100		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P429147

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2402616	Sulfate	101		P	90 - 110
2402650	Sulfate	97.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P429140

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2402621	Ammonia-N	96.4	97.0	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P429254

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2402635	Ammonia-N	98.8	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P429298

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2402620	Kjeldahl Nitrogen	106	106	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P429299

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2403135	Kjeldahl Nitrogen	106	99.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P429327

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2402622	NO2NO3-N	105	105	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P429547

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2401776	NO2NO3-N	104	105	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P429548

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2402637	NO2NO3-N	106	105	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P429002

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2402635	Total-P	95.3	97.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P429153

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2402012	Total-P	100	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P429308

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2403601	Total-P	99.1	99.7	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P428982

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2402494	Acesulfame K	144	144	P/P	40 - 150
2402494	AMPA	90.5	88.5	P/P	40 - 150
2402494	Endothall	80.5	81.7	P/P	40 - 150
2402494	Glufosinate	111	88.7	P/P	40 - 150
2402494	Glyphosate	121	149	P/P	40 - 150
2402494	Sucralose	119	108	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P429013

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2402644	2,4,5-T	115	123	P/P	40 - 150
2402644	Acetaminophen	101	102	P/P	30 - 150
2402644	Acetamiprid	78.3	80.3	P/P	40 - 150
2402644	Afidopyropen	103	94.8	P/P	30 - 150
2402644	Benzovindiflupyr	95.0	87.1	P/P	40 - 150
2402644	Carbamazepine	91.8	82.8	P/P	40 - 150
2402644	Clothianidin	107	101	P/P	40 - 150
2402644	Dinotefuran	69.9	67.7	P/P	40 - 150
2402644	Diuron	75.7	77.1	P/P	40 - 150
2402644	Fenuron	63.6	63.6	P/P	40 - 150
2402644	Hydrocodone	61.2	60.3	P/P	40 - 150
2402644	Ibuprofen	84.7	92.0	P/P	40 - 150
2402644	Imazapyr	100	98.0	P/P	40 - 150
2402644	Imidacloprid	132	124	P/P	40 - 150
2402644	Linuron	81.7	73.9	P/P	40 - 150
2402644	Mandestrobin	95.7	87.3	P/P	40 - 150
2402644	MCCPP	131	131	P/P	40 - 150
2402644	Naproxen	91.2	78.0	P/P	40 - 150
2402644	Primidone	90.8	93.7	P/P	40 - 150
2402644	Pyraclostrobin	94.7	85.7	P/P	40 - 150
2402644	Silvex	110	102	P/P	40 - 150
2402644	Thiamethoxam	89.0	83.4	P/P	40 - 150
2402644	Tolfenpyrad	60.8	58.8	P/P	30 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P429013

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2402644	Triclopyr	127	129	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P429283

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2402648	Fluoride	100	102	P/P	94 - 104

Reference Method: SM 4500-F- C-2011
Batch ID: P429443

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2400123	Fluoride	101	101	P/P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P429190

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2402623	Organic Carbon	94.2	94.9	P/P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P429307

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2401935	Organic Carbon	95.9	96.0	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P428954

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2402619	Color (true)	1.27	Sample	P	0 - 20

Reference Method: DEP SOP: NU-094-1
Batch ID: P428955

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2402634	Color (true)	11.5	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P428972

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2402507	Turbidity	6.01	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P429144

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2402616	Chloride	0.583	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P429147

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2402616	Sulfate	0.336	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P429140

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2402621	Ammonia-N	0.567	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P429254

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2402635	Ammonia-N	1.84	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P429298

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2402620	Kjeldahl Nitrogen	0.270	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P429299

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2403135	Kjeldahl Nitrogen	6.51	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P429327

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2402622	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P429547

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2401776	NO2NO3-N	0.477	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P429548

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2402637	NO2NO3-N	0.475	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P429002

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2402635	Total-P	1.54	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P429153

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2402012	Total-P	1.97	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P429308

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2403601	Total-P	0.629	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P428982

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2402494	Acesulfame K	0.560	Spike	P	0 - 30
2402494	AMPA	1.58	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B

Batch ID: P428982

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2402494	Endothall	1.50	Spike	P	0 - 30
2402494	Glufosinate	22.3	Spike	P	0 - 30
2402494	Glyphosate	13.4	Spike	P	0 - 30
2402494	Sucralose	9.46	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P429013

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2402644	2,4-D	7.57	Spike	P	0 - 30
2402644	2,4,5-T	6.62	Spike	P	0 - 30
2402644	Acetaminophen	1.28	Spike	P	0 - 30
2402644	Acetamiprid	2.44	Spike	P	0 - 30
2402644	Afidopyropen	8.18	Spike	P	0 - 30
2402644	Bentazon	3.60	Spike	P	0 - 30
2402644	Benzovindiflupyr	8.67	Spike	P	0 - 30
2402644	Carbamazepine	10.3	Spike	P	0 - 30
2402644	Clothianidin	5.43	Spike	P	0 - 30
2402644	Dinotefuran	3.17	Spike	P	0 - 30
2402644	Diuron	1.70	Spike	P	0 - 30
2402644	Fenuron	0.0412	Spike	P	0 - 30
2402644	Fluridone	4.16	Spike	P	0 - 30
2402644	Hydrocodone	1.33	Spike	P	0 - 30
2402644	Ibuprofen	8.26	Spike	P	0 - 30
2402644	Imazapyr	1.71	Spike	P	0 - 30
2402644	Imidacloprid	5.21	Spike	P	0 - 30
2402644	Linuron	10.0	Spike	P	0 - 30
2402644	Mandestrobin	9.10	Spike	P	0 - 30
2402644	MCPP	0.202	Spike	P	0 - 30
2402644	Naproxen	15.6	Spike	P	0 - 30
2402644	Primidone	2.93	Spike	P	0 - 30
2402644	Pyraclostrobin	10.0	Spike	P	0 - 30
2402644	Silvex	7.26	Spike	P	0 - 30
2402644	Thiamethoxam	6.40	Spike	P	0 - 30
2402644	Tolfenpyrad	3.37	Spike	P	0 - 30
2402644	Triclopyr	2.00	Spike	P	0 - 30

Reference Method: SM 2320 B-2011

Batch ID: P429192

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2402648	Total Alkalinity	1.96	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2015

Batch ID: P429500

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2401995	TDS	5.85	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 2540 C-2015
Batch ID: P429501

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2402222	TDS	3.89	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P429283

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2402648	Fluoride	1.01	Spike	P	0 - 1.6

Reference Method: SM 4500-F- C-2011
Batch ID: P429443

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2400123	Fluoride	0.483	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P429190

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2402623	Organic Carbon	0.483	Spike	P	0 - 20

Reference Method: SM 5310 B-2011
Batch ID: P429307

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2401935	Organic Carbon	0.0809	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2402644

Field Sample ID: G1SW0139

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	114	P	30 - 160
EPA 8321B	Acetaminophen-d4	85.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	72.2	P	30 - 160
EPA 8321B	Diuron-d6	70.8	P	30 - 160
EPA 8321B	Endothall-d6	88.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	41.6	P	30 - 160
EPA 8321B	Ibuprofen-d3	80.3	P	30 - 160
EPA 8321B	Primidone-d5	91.8	P	30 - 160
EPA 8321B	Sucralose-d6	59.4	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A118755

Included Lab Sample IDs: 2402632, 2402634, 2402636

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	97.8	98.0	P/P	90 - 110
Chloride	98.0	97.8	P/P	90 - 110
Sulfate	98.9	99.1	P/P	90 - 110

Reference Method: DEP SOP: NU-094-1

Run ID: A118763

Included Lab Sample IDs: 2402632, 2402634, 2402636

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	99.8	P/P	90 - 110
Color (true)	102	100	P/P	90 - 110
Color (true)	99.1	97.7	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A118771

Included Lab Sample IDs: 2402632, 2402634, 2402636

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A118812

Included Lab Sample IDs: 2402635

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A118854

Included Lab Sample IDs: 2402633

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

Reference Method: EPA 8321B

Run ID: A118855

Included Lab Sample IDs: 2402644

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	96.7	92.1	P/P	50 - 150
2,4,5-T	98.4	101	P/P	50 - 150
Acetaminophen	103	103	P/P	60 - 160
Acetamiprid	100	106	P/P	50 - 150
Afidopyropen	125	111	P/P	50 - 150
Bentazon	119	122	P/P	50 - 160
Benzovindiflupyr	108	108	P/P	50 - 150
Carbamazepine	106	111	P/P	60 - 150
Clothianidin	100	105	P/P	60 - 150
Dinotefuran	108	112	P/P	50 - 150
Diuron	115	122	P/P	60 - 160
Fenuron	103	106	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A118855
Included Lab Sample IDs: 2402644

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluridone	114	114	P/P	60 - 160
Hydrocodone	99.2	107	P/P	60 - 150
Ibuprofen	90.9	130	P/P	50 - 160
Imazapyr	102	112	P/P	50 - 150
Imidacloprid	95.5	99.7	P/P	60 - 150
Linuron	102	89.2	P/P	60 - 150
Mandestrobin	105	99.2	P/P	50 - 150
MCP	98.8	105	P/P	50 - 150
Naproxen	140	96.0	P/P	50 - 160
Primidone	104	103	P/P	60 - 150
Pyraclostrobin	110	105	P/P	60 - 150
Silvex	97.1	81.5	P/P	50 - 150
Thiamethoxam	109	112	P/P	50 - 150
Tolfenpyrad	99.5	98.7	P/P	60 - 150
Triclopyr	93.7	90.0	P/P	50 - 150

Reference Method: EPA 8321B
Run ID: A118862
Included Lab Sample IDs: 2402644

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	125	146	P/P	60 - 160
Sucralose	104	130	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A118863
Included Lab Sample IDs: 2402644

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	94.0	87.3	P/P	60 - 160
Endothall	82.6	82.7	P/P	60 - 160
Glufosinate	79.7	74.5	P/P	60 - 160
Glyphosate	97.5	103	P/P	60 - 160

Reference Method: SM 2320 B-2011
Run ID: A118869
Included Lab Sample IDs: 2402632, 2402634, 2402636

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	94.8	96.3	P/P	90 - 110
Total Alkalinity	95.5	94.8	P/P	90 - 110

Reference Method: SM 5310 B-2011
Run ID: A118872
Included Lab Sample IDs: 2402633

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.6	98.1	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A118880

Included Lab Sample IDs: 2402633

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A118900

Included Lab Sample IDs: 2402635, 2402637

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.8	99.3	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A118916

Included Lab Sample IDs: 2402632

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

Reference Method: SM 5310 B-2011

Run ID: A118925

Included Lab Sample IDs: 2402635, 2402637

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	100	99.8	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A118933

Included Lab Sample IDs: 2402633

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	105	104	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A118948

Included Lab Sample IDs: 2402633, 2402635, 2402637

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	104	P/P	90 - 110
Kjeldahl Nitrogen	94.9	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A118953

Included Lab Sample IDs: 2402637

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

Reference Method: SM 4500-F- C-2011

Run ID: A118968

Included Lab Sample IDs: 2402634, 2402636

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A119011

Included Lab Sample IDs: 2402635, 2402637

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	104	104	P/P	90 - 110
NO2NO3-N	104	104	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)	97.3			1.27	
	Color (true)	97.2			11.5	
EPA 180.1 Rev. 2.0	Turbidity	99.2			6.01	
EPA 300.0 Rev. 2.1	Chloride	101	101	100	0.583	
	Sulfate	102	101	97.8	0.336	
EPA 350.1 Rev. 2.0	Ammonia-N	97.0	96.4	97.0		0.567
	Ammonia-N	97.0	98.8	101		1.84
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	105	106	106		0.270
	Kjeldahl Nitrogen	102	106	99.0		6.51
EPA 353.2 Rev. 2.0	NO2NO3-N	103	105	105		0.0
	NO2NO3-N	103	104	105		0.477
	NO2NO3-N	105	106	105		0.475
EPA 365.1 Rev. 2.0	Total-P	102	95.3	97.2		1.54
	Total-P	101	100	102		1.97
	Total-P	102	99.1	99.7		0.629
EPA 8321B	2,4-D	106				7.57
	2,4,5-T	100	115	123		6.62
	Acesulfame K	122	144	144		0.560
	Acetaminophen	94.9	101	102		1.28
	Acetamiprid	81.7	78.3	80.3		2.44
	Afidopyropen	66.2	103	94.8		8.18
	AMPA	96.2	90.5	88.5		1.58
	Bentazon	95.9				3.60
	Benzovindiflupyr	91.6	95.0	87.1		8.67
	Carbamazepine	98.7	91.8	82.8		10.3
	Clothianidin	95.4	107	101		5.43
	Dinotefuran	99.3	69.9	67.7		3.17
	Diuron	88.5	75.7	77.1		1.70
	Endothall	80.7	80.5	81.7		1.50
	Fenuron	93.5	63.6	63.6		0.0412
	Fluridone	89.2				4.16
	Glufosinate	77.6	111	88.7		22.3
	Glyphosate	98.2	121	149		13.4
	Hydrocodone	90.7	61.2	60.3		1.33
	Ibuprofen	93.1	84.7	92.0		8.26
	Imazapyr	99.5	100	98.0		1.71
	Imidacloprid	86.9	132	124		5.21
	Linuron	87.0	81.7	73.9		10.0
	Mandestrobin	88.0	95.7	87.3		9.10
	MCPP	109	131	131		0.202
	Naproxen	82.6	91.2	78.0		15.6
	Primidone	92.2	90.8	93.7		2.93
	Pyraclostrobin	86.0	94.7	85.7		10.0
	Silvex	96.2	110	102		7.26
	Sucralose	102	119	108		9.46
	Thiamethoxam	97.2	89.0	83.4		6.40
	Tolfenpyrad	59.4	60.8	58.8		3.37
	Triclopyr	89.1	127	129		2.00
SM 2320 B-2011	Total Alkalinity	95.8			1.96	
SM 2540 C-2015	TDS	95.4			5.85	
	TDS	92.5			3.89	
SM 2540 D-2015	TSS	95.3				
	TSS	93.8				
SM 4500-F- C-2011	Fluoride	97.8	100	102		1.01

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
SM 4500-F- C-2011	Fluoride		101	101		0.483
SM 5310 B-2011	Organic Carbon	95.6	94.2	94.9		0.483
	Organic Carbon	105	95.9	96.0		0.0809

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2402632, 2402634, 2402636
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2402632, 2402634, 2402636
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2402632, 2402634, 2402636
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2402634
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2402633, 2402635, 2402637
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2402633, 2402635, 2402637
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2402633, 2402635, 2402637
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2402633, 2402635, 2402637
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2402644
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2402632, 2402634, 2402636
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2402632, 2402634, 2402636
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2402632, 2402634, 2402636
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2402632, 2402634, 2402636
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2402633, 2402635, 2402637

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	04/25/2023			04/25/2023 14:01	Chandler E Cox	2402632
	04/25/2023			04/25/2023 14:16	Chandler E Cox	2402636
	04/25/2023			04/25/2023 14:22	Chandler E Cox	2402634
EPA 180.1 Rev. 2.0	04/25/2023			04/25/2023 13:49	Khloe J Berg	2402632
	04/25/2023			04/25/2023 13:50	Khloe J Berg	2402634
	04/25/2023			04/25/2023 13:51	Khloe J Berg	2402636
EPA 300.0 Rev. 2.1	04/25/2023			04/28/2023 00:20	James L Waggeberby	2402632
	04/25/2023			04/28/2023 01:05	James L Waggeberby	2402634
	04/25/2023			04/28/2023 01:20	James L Waggeberby	2402636
EPA 350.1 Rev. 2.0	04/25/2023			04/28/2023 13:45	Ping Hua	2402633
	04/25/2023			05/02/2023 12:15	Ping Hua	2402635
	04/25/2023			05/02/2023 12:20	Ping Hua	2402637
EPA 351.2 Rev. 2.0	04/25/2023	05/03/2023 12:13	Dana G. Hughes	05/04/2023 10:07	Samantha L Bates	2402633
	04/25/2023	05/03/2023 12:13	Dana G. Hughes	05/04/2023 10:15	Samantha L Bates	2402635
	04/25/2023	05/03/2023 12:13	Dana G. Hughes	05/04/2023 10:16	Samantha L Bates	2402637
EPA 353.2 Rev. 2.0	04/25/2023			05/03/2023 09:47	Beverly Y. Sanders	2402633
	04/25/2023			05/04/2023 14:52	Anna M. Plaviak	2402635
	04/25/2023			05/04/2023 14:59	Anna M. Plaviak	2402637
EPA 365.1 Rev. 2.0	04/25/2023	04/26/2023 14:50	Adam P Silver	04/27/2023 09:04	Simonne.V. Calhoun	2402635
	04/25/2023	04/28/2023 15:57	Adam P Silver	05/01/2023 12:17	James L Waggeberby	2402633
	04/25/2023	05/03/2023 12:11	Adam P Silver	05/04/2023 09:31	James L Waggeberby	2402637
EPA 8321B	04/25/2023	04/27/2023 09:00	Hoor Shaik	04/27/2023 18:32	Juyoung Kim	2402644
	04/25/2023	04/27/2023 09:00	Hoor Shaik	04/28/2023 12:13	Juyoung Kim	2402644
	04/25/2023	04/28/2023 09:00	Manjita Shrestha	04/28/2023 13:15	Manjita Shrestha	2402644
	04/25/2023	04/28/2023 09:00	Manjita Shrestha	04/28/2023 19:09	Manjita Shrestha	2402644
	04/25/2023	04/28/2023 09:00	Manjita Shrestha	04/29/2023 02:02	Manjita Shrestha	2402644
SM 2320 B-2011	04/25/2023			04/28/2023 07:57	Dale L. Simmons	2402632
	04/25/2023			04/28/2023 09:57	Dale L. Simmons	2402634
	04/25/2023			04/28/2023 10:08	Dale L. Simmons	2402636
SM 2540 C-2015	04/25/2023			04/26/2023 15:12	Yijie Li	2402632, 2402634, 2402636
SM 2540 D-2015	04/25/2023			04/26/2023 15:12	Yijie Li	2402632, 2402634, 2402636
SM 4500-F- C-2011	04/25/2023			05/02/2023 18:57	Dale L. Simmons	2402632
	04/25/2023			05/05/2023 02:54	Adam P Silver	2402634
	04/25/2023			05/05/2023 03:00	Adam P Silver	2402636
SM 5310 B-2011	04/25/2023			04/28/2023 21:52	Elise M. Gillis	2402633
	04/25/2023			05/03/2023 03:17	Elise M. Gillis	2402635
	04/25/2023			05/03/2023 03:43	Elise M. Gillis	2402637