

Chemical Analysis Report

SE-DIST-2023-05-12-01

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

Event Description: **SMP - Lake Clarke**
Request ID: **RQ-2023-05-01-31**
Customer: **SE-DIST**
Project ID: **SMP**

Send Reports to:
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Date Certified: 02-JUN-2023 15:03



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 CLARKE INFLOW 5 S CONGRESS AVE ABOVE CAYMAN DR **Collection Date/Time: 05/11/2023 10:30**

Field ID: G3SE0076

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2409202	DEP SOP: NU-094-1	Color (true)	70		PCU	P429835	
	EPA 180.1 Rev. 2.0	Turbidity	1.2		NTU	P429840	
	EPA 300.0 Rev. 2.1	Chloride	39		mg Cl/L	P430018	
		Sulfate	13		mg SO4/L	P430022	
	SM 2320 B-2011	Total Alkalinity	118		mg CaCO3/L	P430118	
	SM 2540 C-2015	TDS	236		mg/L	P430415	
	SM 2540 D-2015	TSS	2	I	mg/L	P430220	
	SM 4500-F- C-2011	Fluoride	0.085	I	mg F/L	P430529	
2409208	EPA 350.1 Rev. 2.0	Ammonia-N	0.015		mg N/L	P430078	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.84		mg N/L	P430087	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.009	I	mg N/L	P430057	
	EPA 365.1 Rev. 2.0	Total-P	0.036		mg P/L	P429861	
	SM 5310 B-2011	Organic Carbon	14		mg C/L	P429897	

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: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

**Sample Location: LAKE CLARKE INFLOW 3 S CONGRESS AVE
 BELOW LAURA LN**

Collection Date/Time: 05/11/2023 10:45

Field ID: G3SE0074

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2409203	DEP SOP: NU-094-1	Color (true)	66		PCU	P429835	
	EPA 180.1 Rev. 2.0	Turbidity	4.4		NTU	P429840	
	EPA 300.0 Rev. 2.1	Chloride	43		mg Cl/L	P430018	
		Sulfate	16		mg SO4/L	P430022	
	SM 2320 B-2011	Total Alkalinity	133		mg CaCO3/L	P430118	
	SM 2540 C-2015	TDS	250		mg/L	P430415	
	SM 2540 D-2015	TSS	6	I	mg/L	P430220	
	SM 4500-F- C-2011	Fluoride	0.14		mg F/L	P430529	
2409209	EPA 350.1 Rev. 2.0	Ammonia-N	0.022		mg N/L	P430078	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.91		mg N/L	P430087	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.005	I	mg N/L	P430057	
	EPA 365.1 Rev. 2.0	Total-P	0.065		mg P/L	P429861	
	SM 5310 B-2011	Organic Carbon	13		mg C/L	P429897	

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: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: LAKE CLARKE INFLOW 2 S CONGRESS AVE ABOVE CHEROKEE RD **Collection Date/Time: 05/11/2023 11:00**

Field ID: G3SE0073

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2409204	DEP SOP: NU-094-1	Color (true)	55		PCU	P429835	
	EPA 180.1 Rev. 2.0	Turbidity	3.2		NTU	P429840	
	EPA 300.0 Rev. 2.1	Chloride	35		mg Cl/L	P430018	
		Sulfate	14		mg SO4/L	P430022	
	SM 2320 B-2011	Total Alkalinity	148		mg CaCO3/L	P430118	
	SM 2540 C-2015	TDS	230		mg/L	P430415	
	SM 2540 D-2015	TSS	5	I	mg/L	P430220	
	SM 4500-F- C-2011	Fluoride	0.084	I	mg F/L	P430529	
2409210	EPA 350.1 Rev. 2.0	Ammonia-N	0.031		mg N/L	P430078	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P430087	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.028		mg N/L	P430057	
	EPA 365.1 Rev. 2.0	Total-P	0.087		mg P/L	P429862	
	SM 5310 B-2011	Organic Carbon	11		mg C/L	P429897	

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: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

**Sample Location: LAKE CLARKE INFLOW 1 S CONGRESS AVE
ABOVE COLLIN DR**

Collection Date/Time: 05/11/2023 11:15

Field ID: G3SE0072

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2409205	DEP SOP: NU-094-1	Color (true)	89		PCU	P429835	
	EPA 180.1 Rev. 2.0	Turbidity	4.0		NTU	P429840	
	EPA 300.0 Rev. 2.1	Chloride	43		mg Cl/L	P430018	
		Sulfate	18		mg SO4/L	P430022	
	SM 2320 B-2011	Total Alkalinity	150		mg CaCO3/L	P430118	
	SM 2540 C-2015	TDS	271		mg/L	P430415	
	SM 2540 D-2015	TSS	9	I	mg/L	P430220	
	SM 4500-F- C-2011	Fluoride	0.11		mg F/L	P430529	
2409211	EPA 350.1 Rev. 2.0	Ammonia-N	0.007		mg N/L	P430078	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P430087	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P430057	
	EPA 365.1 Rev. 2.0	Total-P	0.13		mg P/L	P429862	
	SM 5310 B-2011	Organic Carbon	16		mg C/L	P429897	

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: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: LAKE CLARKE OUTFLOW EAST OF PINE TREE LN **Collection Date/Time: 05/11/2023 11:55**

Field ID: G3SE0077

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2409206	DEP SOP: NU-094-1	Color (true)	46		PCU	P429835	
	EPA 180.1 Rev. 2.0	Turbidity	2.7		NTU	P429840	
	EPA 300.0 Rev. 2.1	Chloride	74		mg Cl/L	P430018	
		Sulfate	29		mg SO4/L	P430022	
	SM 2320 B-2011	Total Alkalinity	172		mg CaCO3/L	P430118	
	SM 2540 C-2015	TDS	368		mg/L	P430415	
	SM 2540 D-2015	TSS	4	I	mg/L	P430220	
	SM 4500-F- C-2011	Fluoride	0.18		mg F/L	P430529	
2409212	EPA 350.1 Rev. 2.0	Ammonia-N	0.011		mg N/L	P430078	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P429852	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.005	I	mg N/L	P430057	
	EPA 365.1 Rev. 2.0	Total-P	0.068		mg P/L	P429862	
	SM 5310 B-2011	Organic Carbon	13		mg C/L	P429897	

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: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

**Sample Location: LAKE CLARKE INFLOW 4 S CONGRESS AVE
BELOW LARK RD** **Collection Date/Time: 05/11/2023 10:40**

Field ID: G3SE0075

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2409207	DEP SOP: NU-094-1	Color (true)	92		PCU	P429835	
	EPA 180.1 Rev. 2.0	Turbidity	1.8		NTU	P429840	
	EPA 300.0 Rev. 2.1	Chloride	33		mg Cl/L	P430018	
		Sulfate	15		mg SO4/L	P430022	
	SM 2320 B-2011	Total Alkalinity	122		mg CaCO3/L	P430118	
	SM 2540 C-2015	TDS	246	A	mg/L	P430415	
	SM 2540 D-2015	TSS	3	IA	mg/L	P430220	
	SM 4500-F- C-2011	Fluoride	0.081	I	mg F/L	P430529	
2409213	EPA 350.1 Rev. 2.0	Ammonia-N	0.016		mg N/L	P430078	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.95		mg N/L	P429852	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.007	I	mg N/L	P430057	
	EPA 365.1 Rev. 2.0	Total-P	0.047		mg P/L	P429862	
	SM 5310 B-2011	Organic Carbon	17		mg C/L	P429963	

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: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: LAKE CLARKE CENTER

Collection Date/Time: 05/11/2023 11:35

Field ID: G3SE0043

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2409214	DEP SOP: NU-094-1	Color (true)	63		PCU	P429835	
	EPA 180.1 Rev. 2.0	Turbidity	1.9		NTU	P429840	
	EPA 300.0 Rev. 2.1	Chloride	72		mg Cl/L	P430018	
		Sulfate	28		mg SO4/L	P430022	
	SM 2320 B-2011	Total Alkalinity	173		mg CaCO3/L	P430154	
	SM 2540 C-2015	TDS	355		mg/L	P430415	
	SM 2540 D-2015	TSS	2	I	mg/L	P430220	
2409215	SM 4500-F- C-2011	Fluoride	0.18		mg F/L	P430159	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P430078	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.94		mg N/L	P429852	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P430057	
	EPA 365.1 Rev. 2.0	Total-P	0.051		mg P/L	P429862	
2409223	SM 5310 B-2011	Organic Carbon	13		mg C/L	P429963	
	EPA 8321B	2,4-D	0.037		ug/L	P429889	
		Acesulfame K	0.12	I	ug/L	P429733	
		2,4,5-T	0.0040	U	ug/L	P429889	
		AMPA	1.1		ug/L	P429733	
		Acetaminophen	0.0080	U	ug/L	P429889	
		Acetamiprid	0.0020	U	ug/L	P429889	
		Endothall	0.25	U	ug/L	P429733	
		Glufosinate	0.10	U	ug/L	P429733	
		Glyphosate	2.7		ug/L	P429733	
		Afidopyropen	0.0020	U	ug/L	P429889	
		Bentazon	0.13		ug/L	P429889	
		Sucralose	0.45		ug/L	P429733	
		Benzovindiflupyr	0.0020	U	ug/L	P429889	
		Carbamazepine	0.0022	I	ug/L	P429889	
		Clothianidin	0.0020	U	ug/L	P429889	
		Dinotefuran	0.0042	I	ug/L	P429889	
		Diuron	0.0041	I	ug/L	P429889	
		Fenuron	0.032	U	ug/L	P429889	
		Fluridone	0.093		ug/L	P429889	
		Imazapyr	0.44		ug/L	P429889	
		Hydrocodone	0.0020	U	ug/L	P429889	
		Ibuprofen	0.080	U	ug/L	P429889	
		Imidacloprid	0.024		ug/L	P429889	
		Linuron	0.0040	U	ug/L	P429889	
		Mandestrobin	0.0020	U	ug/L	P429889	
		MCP	0.0023	I	ug/L	P429889	
		Naproxen	0.0080	U	ug/L	P429889	
		Primidone	0.0040	U	ug/L	P429889	
		Pyraclostrobin	0.0020	U	ug/L	P429889	
		Silvex	0.0040	U	ug/L	P429889	
		Thiamethoxam	0.0020	U	ug/L	P429889	

Field ID: G3SE0043

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2409223	EPA 8321B	Tolfenpyrad	0.0020	U	ug/L	P429889	
		Triclopyr	0.0040	U	ug/L	P429889	

Ref. Method and Comment:
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P429835

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P429840

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430018

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430022

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P430078

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P429852

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P430087

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P430057

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P429861

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

Batch ID: P429862

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

Reference Method: EPA 8321B

Batch ID: P429733

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: P429889

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
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: P430118

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

Quality Assurance Report Method Blank Results

Reference Method: SM 2320 B-2011
Batch ID: P430154

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

Reference Method: SM 2540 C-2015
Batch ID: P430415

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P430220

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P430159

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 4500-F- C-2011
Batch ID: P430529

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P429897

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

Reference Method: SM 5310 B-2011
Batch ID: P429963

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: P429835

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	101		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P429840

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	97.5		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430018

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430022

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P430078

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P429852

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P430087

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	94.2		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P430057

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: P429861

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P429862

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

Reference Method: EPA 8321B

Batch ID: P429733

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	99.3		P	40 - 150
AMPA	104		P	40 - 150
Endothall	80.0		P	40 - 150
Glufosinate	105		P	40 - 150
Glyphosate	122		P	40 - 150
Sucralose	96.1		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P429889

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	84.3		P	40 - 150
2,4,5-T	89.3		P	40 - 150
Acetaminophen	82.7		P	30 - 150
Acetamiprid	70.0		P	40 - 150
Afidopyropen	62.5		P	30 - 150
Bentazon	120		P	30 - 150
Benzovindiflupyr	76.4		P	40 - 150
Carbamazepine	76.1		P	40 - 150
Clothianidin	80.8		P	40 - 150
Dinotefuran	88.8		P	40 - 150
Diuron	75.8		P	40 - 150
Fenuron	81.6		P	40 - 150
Fluridone	77.1		P	40 - 150
Hydrocodone	86.6		P	40 - 150
Ibuprofen	75.7		P	40 - 150
Imazapyr	83.8		P	40 - 150
Imidacloprid	80.5		P	40 - 150
Linuron	75.8		P	40 - 150
Mandestrobin	75.4		P	40 - 150
MCPP	96.5		P	40 - 150
Naproxen	74.1		P	40 - 150
Primidone	83.1		P	40 - 150
Pyraclostrobin	76.6		P	40 - 150
Silvex	100		P	40 - 150
Thiamethoxam	82.9		P	40 - 150
Tolfenpyrad	53.6		P	30 - 150
Triclopyr	82.2		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P430118

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.3		P	92 - 105

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P430154

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.8		P	92 - 105

Reference Method: SM 2540 C-2015
Batch ID: P430415

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

Reference Method: SM 2540 D-2015
Batch ID: P430220

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	96.4		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P430159

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

Reference Method: SM 4500-F- C-2011
Batch ID: P430529

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.0		P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P429897

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.6		P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P429963

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.4		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430018

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408931	Chloride	104		P	90 - 110
2409193	Chloride	103		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430022

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408931	Sulfate	103		P	90 - 110
2409193	Sulfate	97.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P430078

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2409208	Ammonia-N	97.8	97.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P429852

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2409239	Kjeldahl Nitrogen	106	96.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P430087

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2409211	Kjeldahl Nitrogen	98.1	97.7	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P430057

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2409208	NO2NO3-N	103	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P429861

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2409029	Total-P	104	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P429862

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2409263	Total-P	104	102	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P429733

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408587	Acesulfame K	76.9	77.8	P/P	40 - 150
2408587	AMPA	71.7	72.7	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P429733

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408587	Endothall	73.2	75.2	P/P	40 - 150
2408587	Glufosinate	68.2	72.2	P/P	40 - 150
2408587	Glyphosate	79.6	67.2	P/P	40 - 150
2408587	Sucralose	81.1	89.4	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P429889

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2409223	2,4-D	89.6	105	P/P	40 - 150
2409223	2,4,5-T	108	106	P/P	40 - 150
2409223	Acetaminophen	92.6	101	P/P	30 - 150
2409223	Acetamiprid	65.4	65.7	P/P	40 - 150
2409223	Afidopyropen	80.0	79.9	P/P	30 - 150
2409223	Benzovindiflupyr	73.1	84.9	P/P	40 - 150
2409223	Carbamazepine	68.2	75.8	P/P	40 - 150
2409223	Clothianidin	89.1	99.6	P/P	40 - 150
2409223	Dinotefuran	62.8	68.7	P/P	40 - 150
2409223	Diuron	63.0	77.6	P/P	40 - 150
2409223	Fenuron	52.6	61.5	P/P	40 - 150
2409223	Hydrocodone	52.1	59.1	P/P	40 - 150
2409223	Ibuprofen	62.2	54.0	P/P	40 - 150
2409223	Imidacloprid	109	119	P/P	40 - 150
2409223	Linuron	65.4	69.8	P/P	40 - 150
2409223	Mandestrobin	72.6	83.7	P/P	40 - 150
2409223	MCPP	103	120	P/P	40 - 150
2409223	Naproxen	64.6	84.8	P/P	40 - 150
2409223	Primidone	83.4	90.5	P/P	40 - 150
2409223	Pyraclostrobin	77.6	80.8	P/P	40 - 150
2409223	Silvex	109	115	P/P	40 - 150
2409223	Thiamethoxam	75.5	88.2	P/P	40 - 150
2409223	Tolfenpyrad	49.5	55.9	P/P	30 - 150
2409223	Triclopyr	114	98.9	P/P	40 - 150

Reference Method: SM 4500-F- C-2011

Batch ID: P430159

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2409306	Fluoride	104	103	P/P	94 - 106

Reference Method: SM 5310 B-2011

Batch ID: P429897

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408905	Organic Carbon	94.1	95.6	P/P	85 - 115

Reference Method: SM 5310 B-2011

Batch ID: P429963

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2409277	Organic Carbon	96.0	96.8	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P429835

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2409133	Color (true)	0.249	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P429840

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2409133	Turbidity	13.5	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430018

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408931	Chloride	1.89	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430022

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408931	Sulfate	2.12	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P430078

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2409208	Ammonia-N	0.312	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P429852

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2409239	Kjeldahl Nitrogen	5.83	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P430087

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2409211	Kjeldahl Nitrogen	0.206	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P430057

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2409208	NO2NO3-N	1.41	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P429861

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2409029	Total-P	1.69	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P429862

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2409263	Total-P	2.24	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P429733

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408587	Acesulfame K	1.13	Spike	P	0 - 30
2408587	AMPA	1.43	Spike	P	0 - 30
2408587	Endothall	2.76	Spike	P	0 - 30
2408587	Glufosinate	5.74	Spike	P	0 - 30
2408587	Glyphosate	16.8	Spike	P	0 - 30
2408587	Sucralose	8.35	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P429889

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2409223	2,4-D	10.8	Spike	P	0 - 30
2409223	2,4,5-T	1.89	Spike	P	0 - 30
2409223	Acetaminophen	9.13	Spike	P	0 - 30
2409223	Acetamiprid	0.421	Spike	P	0 - 30
2409223	Afidopyropen	0.122	Spike	P	0 - 30
2409223	Bentazon	7.23	Spike	P	0 - 30
2409223	Benzovindiflupyr	14.9	Spike	P	0 - 30
2409223	Carbamazepine	9.16	Spike	P	0 - 30
2409223	Clothianidin	11.2	Spike	P	0 - 30
2409223	Dinotefuran	8.29	Spike	P	0 - 30
2409223	Diuron	19.3	Spike	P	0 - 30
2409223	Fenuron	15.6	Spike	P	0 - 30
2409223	Fluridone	4.86	Spike	P	0 - 30
2409223	Hydrocodone	12.7	Spike	P	0 - 30
2409223	Ibuprofen	14.3	Spike	P	0 - 30
2409223	Imazapyr	10.6	Spike	P	0 - 30
2409223	Imidacloprid	7.49	Spike	P	0 - 30
2409223	Linuron	6.55	Spike	P	0 - 30
2409223	Mandestrobin	14.2	Spike	P	0 - 30
2409223	MCPP	14.4	Spike	P	0 - 30
2409223	Naproxen	27.1	Spike	P	0 - 30
2409223	Primidone	8.15	Spike	P	0 - 30
2409223	Pyraclostrobin	4.03	Spike	P	0 - 30
2409223	Silvex	5.04	Spike	P	0 - 30
2409223	Thiamethoxam	15.5	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P429889

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2409223	Tolfenpyrad	12.3	Spike	P	0 - 30
2409223	Triclopyr	14.0	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P430118

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408994	Total Alkalinity	2.41	Sample	P	0 - 3.9

Reference Method: SM 2320 B-2011
Batch ID: P430154

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2409306	Total Alkalinity	1.10	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P430415

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2409207	TDS	3.25	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P430159

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2409306	Fluoride	0.480	Spike	P	0 - 1.9

Reference Method: SM 4500-F- C-2011
Batch ID: P430529

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2409948	Fluoride	0.945	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2011
Batch ID: P429897

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408905	Organic Carbon	1.06	Spike	P	0 - 20

Reference Method: SM 5310 B-2011
Batch ID: P429963

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2409277	Organic Carbon	0.610	Spike	P	0 - 20

Quality Assurance Report Precision

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

Quality Assurance Report Surrogates

Lab Sample ID: 2409223
Field Sample ID: G3SE0043

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	113	P	30 - 160
EPA 8321B	Acetaminophen-d4	95.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	76.2	P	30 - 160
EPA 8321B	Diuron-d6	66.2	P	30 - 160
EPA 8321B	Endothall-d6	94.7	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	82.2	P	30 - 160
EPA 8321B	Ibuprofen-d3	63.9	P	30 - 160
EPA 8321B	Primidone-d5	90.5	P	30 - 160
EPA 8321B	Sucralose-d6	85.9	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A119145

Included Lab Sample IDs: 2409202, 2409203, 2409204, 2409205, 2409206, 2409207, 2409214

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	101	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A119146

Included Lab Sample IDs: 2409202, 2409203, 2409204, 2409205, 2409206, 2409207, 2409214

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	98.0	97.5	P/P	95 - 105

Reference Method: SM 5310 B-2011

Run ID: A119185

Included Lab Sample IDs: 2409208, 2409209, 2409210, 2409211, 2409212

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.2	96.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A119188

Included Lab Sample IDs: 2409209, 2409210, 2409211, 2409212, 2409215

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

Reference Method: EPA 8321B

Run ID: A119190

Included Lab Sample IDs: 2409223

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	115	114	P/P	60 - 160
Endothall	85.0	83.6	P/P	60 - 160
Glufosinate	106	102	P/P	60 - 160
Glyphosate	121	115	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A119191

Included Lab Sample IDs: 2409223

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	98.6	96.4	P/P	60 - 160
Sucralose	92.7	116	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A119193

Included Lab Sample IDs: 2409208, 2409213

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	101	99.5	P/P	90 - 110
Total-P	99.5	100	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A119211

Included Lab Sample IDs: 2409202, 2409203, 2409204, 2409205, 2409206, 2409207, 2409214

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	101	P/P	90 - 110
Sulfate	101	102	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A119213

Included Lab Sample IDs: 2409213, 2409215

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.2	97.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A119226

Included Lab Sample IDs: 2409212, 2409213, 2409215

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	99.3	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A119252

Included Lab Sample IDs: 2409208, 2409209, 2409210, 2409211, 2409212, 2409213, 2409215

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A119259

Included Lab Sample IDs: 2409208, 2409209, 2409210, 2409211, 2409212, 2409213, 2409215

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.8	97.1	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A119276

Included Lab Sample IDs: 2409202, 2409203, 2409204, 2409205, 2409206, 2409207

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.0	96.7	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A119279

Included Lab Sample IDs: 2409223

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	105	96.4	P/P	50 - 150
2,4,5-T	94.9	87.0	P/P	50 - 150
Acetaminophen	102	98.8	P/P	60 - 160
Acetamiprid	104	105	P/P	50 - 150
Afidopyropen	101	98.0	P/P	50 - 150
Bentazon	129	115	P/P	50 - 160
Benzovindiflupyr	92.6	98.3	P/P	50 - 150
Carbamazepine	105	99.1	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A119279
Included Lab Sample IDs: 2409223

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Clothianidin	98.8	106	P/P	60 - 150
Dinotefuran	110	110	P/P	50 - 150
Diuron	114	117	P/P	60 - 160
Fenuron	104	102	P/P	60 - 150
Fluridone	113	113	P/P	60 - 160
Hydrocodone	117	111	P/P	60 - 150
Ibuprofen	101	62.4	P/P	50 - 160
Imazapyr	108	100	P/P	50 - 150
Imidacloprid	99.0	97.6	P/P	60 - 150
Linuron	95.3	99.5	P/P	60 - 150
Mandestrobin	107	99.0	P/P	50 - 150
MCPP	93.1	91.7	P/P	50 - 150
Naproxen	69.0	62.9	P/P	50 - 160
Primidone	97.7	102	P/P	60 - 150
Pyraclostrobin	107	107	P/P	60 - 150
Silvex	98.3	87.5	P/P	50 - 150
Thiamethoxam	109	106	P/P	50 - 150
Tolfenpyrad	96.6	98.8	P/P	60 - 150
Triclopyr	84.5	86.1	P/P	50 - 150

Reference Method: SM 2320 B-2011
Run ID: A119302
Included Lab Sample IDs: 2409214

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.1	98.3	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Run ID: A119302
Included Lab Sample IDs: 2409214

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	103	104	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A119336
Included Lab Sample IDs: 2409208, 2409209, 2409210, 2409211

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

Reference Method: SM 4500-F- C-2011
Run ID: A119457
Included Lab Sample IDs: 2409202, 2409203, 2409204, 2409205, 2409206, 2409207

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	103	102	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)	101			0.249	
EPA 180.1 Rev. 2.0	Turbidity	97.5			13.5	
EPA 300.0 Rev. 2.1	Chloride	103	104	103	1.89	
	Sulfate	103	103	97.8	2.12	
EPA 350.1 Rev. 2.0	Ammonia-N	97.2	97.8	97.4		0.312
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	107	106	96.4		5.83
	Kjeldahl Nitrogen	94.2	98.1	97.7		0.206
EPA 353.2 Rev. 2.0	NO2NO3-N	102	103	102		1.41
EPA 365.1 Rev. 2.0	Total-P	102	104	101		1.69
	Total-P	101	104	102		2.24
EPA 8321B	2,4-D	84.3	89.6	105		10.8
	2,4,5-T	89.3	108	106		1.89
	Acesulfame K	99.3	76.9	77.8		1.13
	Acetaminophen	82.7	92.6	101		9.13
	Acetamiprid	70.0	65.4	65.7		0.421
	Afidopyropen	62.5	80.0	79.9		0.122
	AMPA	104	71.7	72.7		1.43
	Bentazon	120				7.23
	Benzovindiflupyr	76.4	73.1	84.9		14.9
	Carbamazepine	76.1	68.2	75.8		9.16
	Clothianidin	80.8	89.1	99.6		11.2
	Dinotefuran	88.8	62.8	68.7		8.29
	Diuron	75.8	63.0	77.6		19.3
	Endothall	80.0	73.2	75.2		2.76
	Fenuron	81.6	52.6	61.5		15.6
	Fluridone	77.1				4.86
	Glufosinate	105	68.2	72.2		5.74
	Glyphosate	122	79.6	67.2		16.8
	Hydrocodone	86.6	52.1	59.1		12.7
	Ibuprofen	75.7	62.2	54.0		14.3
	Imazapyr	83.8				10.6
	Imidacloprid	80.5	109	119		7.49
	Linuron	75.8	65.4	69.8		6.55
	Mandestrobin	75.4	72.6	83.7		14.2
	MCPPP	96.5	103	120		14.4
	Naproxen	74.1	64.6	84.8		27.1
	Primidone	83.1	83.4	90.5		8.15
	Pyraclostrobin	76.6	77.6	80.8		4.03
	Silvex	100	109	115		5.04
	Sucralose	96.1	81.1	89.4		8.35
	Thiamethoxam	82.9	75.5	88.2		15.5
	Tolfenpyrad	53.6	49.5	55.9		12.3
	Triclopyr	82.2	114	98.9		14.0
SM 2320 B-2011	Total Alkalinity	99.3			2.41	
	Total Alkalinity	98.8			1.10	
SM 2540 C-2015	TDS	99.4			3.25	
SM 2540 D-2015	TSS	96.4				
SM 4500-F- C-2011	Fluoride	103	104	103		0.480
	Fluoride	99.0				0.945
SM 5310 B-2011	Organic Carbon	94.6	94.1	95.6		1.06
	Organic Carbon	98.4	96.0	96.8		0.610

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2409202, 2409203, 2409204, 2409205, 2409206, 2409207, 2409214
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2409202, 2409203, 2409204, 2409205, 2409206, 2409207, 2409214
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2409202, 2409203, 2409204, 2409205, 2409206, 2409207, 2409214
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2409202, 2409203, 2409204, 2409205, 2409206, 2409207, 2409214
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2409208, 2409209, 2409210, 2409211, 2409212, 2409213, 2409215
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2409208, 2409209, 2409210, 2409211, 2409212, 2409213, 2409215
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2409208, 2409209, 2409210, 2409211, 2409212, 2409213, 2409215
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2409208, 2409209, 2409210, 2409211, 2409212, 2409213, 2409215
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2409223
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2409202, 2409203, 2409204, 2409205, 2409206, 2409207, 2409214
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2409202, 2409203, 2409204, 2409205, 2409206, 2409207, 2409214
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2409202, 2409203, 2409204, 2409205, 2409206, 2409207, 2409214
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2409202, 2409203, 2409204, 2409205, 2409206, 2409207, 2409214
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2409208, 2409209, 2409210, 2409211, 2409212, 2409213, 2409215

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	05/12/2023			05/12/2023 14:11	Anna M. Plaviak	2409202
	05/12/2023			05/12/2023 14:12	Anna M. Plaviak	2409203, 2409204
	05/12/2023			05/12/2023 14:13	Anna M. Plaviak	2409205, 2409206
	05/12/2023			05/12/2023 14:14	Anna M. Plaviak	2409207, 2409214
EPA 180.1 Rev. 2.0	05/12/2023			05/12/2023 12:38	Chandler E Cox	2409202, 2409203
	05/12/2023			05/12/2023 12:39	Chandler E Cox	2409204
	05/12/2023			05/12/2023 12:40	Chandler E Cox	2409205
	05/12/2023			05/12/2023 12:41	Chandler E Cox	2409206
EPA 300.0 Rev. 2.1	05/12/2023			05/12/2023 12:42	Chandler E Cox	2409207, 2409214
	05/12/2023			05/17/2023 23:30	James L Waggeberby	2409202
	05/12/2023			05/17/2023 23:45	James L Waggeberby	2409203
	05/12/2023			05/18/2023 00:00	James L Waggeberby	2409204
EPA 350.1 Rev. 2.0	05/12/2023			05/18/2023 00:15	James L Waggeberby	2409205
	05/12/2023			05/18/2023 00:30	James L Waggeberby	2409206
	05/12/2023			05/18/2023 00:45	James L Waggeberby	2409207
	05/12/2023			05/18/2023 01:00	James L Waggeberby	2409214
EPA 351.2 Rev. 2.0	05/12/2023			05/18/2023 15:42	Ping Hua	2409208
	05/12/2023			05/18/2023 15:46	Ping Hua	2409209
	05/12/2023			05/18/2023 15:47	Ping Hua	2409210
	05/12/2023			05/18/2023 15:49	Ping Hua	2409211
EPA 353.2 Rev. 2.0	05/12/2023			05/18/2023 15:50	Ping Hua	2409212
	05/12/2023			05/18/2023 15:51	Ping Hua	2409213
	05/12/2023			05/18/2023 15:53	Ping Hua	2409215
	05/12/2023			05/18/2023 15:53	Ping Hua	2409215
EPA 365.1 Rev. 2.0	05/12/2023	05/15/2023 12:40	Simonne.V. Calhoun	05/17/2023 13:19	Samantha L Bates	2409212
	05/12/2023	05/15/2023 12:40	Simonne.V. Calhoun	05/17/2023 13:21	Samantha L Bates	2409213
	05/12/2023	05/15/2023 12:40	Simonne.V. Calhoun	05/17/2023 13:23	Samantha L Bates	2409215
	05/12/2023	05/19/2023 08:44	Samantha L Bates	05/23/2023 10:38	Samantha L Bates	2409208
EPA 365.1 Rev. 2.0	05/12/2023	05/19/2023 08:44	Samantha L Bates	05/23/2023 10:40	Samantha L Bates	2409209
	05/12/2023	05/19/2023 08:44	Samantha L Bates	05/23/2023 10:42	Samantha L Bates	2409210
	05/12/2023	05/19/2023 08:44	Samantha L Bates	05/23/2023 10:43	Samantha L Bates	2409211
	05/12/2023	05/19/2023 08:44	Samantha L Bates	05/23/2023 10:43	Samantha L Bates	2409211
EPA 365.1 Rev. 2.0	05/12/2023			05/18/2023 11:50	Anna M. Plaviak	2409208
	05/12/2023			05/18/2023 11:51	Anna M. Plaviak	2409209
	05/12/2023			05/18/2023 11:52	Anna M. Plaviak	2409210
	05/12/2023			05/18/2023 11:53	Anna M. Plaviak	2409211
EPA 365.1 Rev. 2.0	05/12/2023			05/18/2023 11:55	Anna M. Plaviak	2409212
	05/12/2023			05/18/2023 11:56	Anna M. Plaviak	2409213
	05/12/2023			05/18/2023 11:57	Anna M. Plaviak	2409215
	05/12/2023			05/18/2023 11:57	Anna M. Plaviak	2409215
EPA 365.1 Rev. 2.0	05/12/2023	05/15/2023 14:57	Adam P Silver	05/16/2023 10:22	James L Waggeberby	2409209
	05/12/2023	05/15/2023 14:57	Adam P Silver	05/16/2023 10:28	James L Waggeberby	2409210
	05/12/2023	05/15/2023 14:57	Adam P Silver	05/16/2023 10:29	James L Waggeberby	2409211

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 365.1 Rev. 2.0	05/12/2023	05/15/2023 14:57	Adam P Silver	05/16/2023 10:30	James L Waggeberby	2409212
	05/12/2023	05/15/2023 14:57	Adam P Silver	05/16/2023 10:33	James L Waggeberby	2409215
	05/12/2023	05/15/2023 14:57	Adam P Silver	05/16/2023 13:27	James L Waggeberby	2409208
	05/12/2023	05/15/2023 14:57	Adam P Silver	05/16/2023 13:36	James L Waggeberby	2409213
EPA 8321B	05/12/2023	05/12/2023 12:00	Manjita Shrestha	05/12/2023 20:22	Manjita Shrestha	2409223
	05/12/2023	05/12/2023 12:00	Manjita Shrestha	05/14/2023 00:32	Manjita Shrestha	2409223
	05/12/2023	05/17/2023 08:30	Hoor Shaik	05/17/2023 16:49	Juyoung Kim	2409223
	05/12/2023	05/17/2023 08:30	Hoor Shaik	05/18/2023 11:56	Juyoung Kim	2409223
SM 2320 B-2011	05/12/2023			05/19/2023 08:14	Dale L. Simmons	2409202
	05/12/2023			05/19/2023 08:26	Dale L. Simmons	2409203
	05/12/2023			05/19/2023 08:37	Dale L. Simmons	2409204
	05/12/2023			05/19/2023 08:49	Dale L. Simmons	2409205
	05/12/2023			05/19/2023 09:01	Dale L. Simmons	2409206
	05/12/2023			05/19/2023 09:13	Dale L. Simmons	2409207
	05/12/2023			05/19/2023 22:52	Dale L. Simmons	2409214
SM 2540 C-2015	05/12/2023			05/17/2023 16:36	Yijie Li	2409202, 2409203, 2409204, 2409205, 2409206, 2409207, 2409214
SM 2540 D-2015	05/12/2023			05/17/2023 16:36	Yijie Li	2409202, 2409203, 2409204, 2409205, 2409206, 2409207, 2409214
SM 4500-F- C-2011	05/12/2023			05/19/2023 22:52	Dale L. Simmons	2409214
	05/12/2023			05/27/2023 04:57	Dale L. Simmons	2409202
	05/12/2023			05/27/2023 05:03	Dale L. Simmons	2409203
	05/12/2023			05/27/2023 05:08	Dale L. Simmons	2409204
	05/12/2023			05/27/2023 05:13	Dale L. Simmons	2409205
	05/12/2023			05/27/2023 05:18	Dale L. Simmons	2409206
	05/12/2023			05/27/2023 05:24	Dale L. Simmons	2409207
SM 5310 B-2011	05/12/2023			05/16/2023 05:02	Elise M. Gillis	2409208
	05/12/2023			05/16/2023 05:16	Elise M. Gillis	2409209
	05/12/2023			05/16/2023 05:29	Elise M. Gillis	2409210
	05/12/2023			05/16/2023 05:44	Elise M. Gillis	2409211
	05/12/2023			05/16/2023 05:58	Elise M. Gillis	2409212
	05/12/2023			05/16/2023 18:59	Elise M. Gillis	2409213
	05/12/2023			05/16/2023 19:14	Elise M. Gillis	2409215