

Chemical Analysis Report

SE-DIST-2023-07-18-02

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

Event Description: **Lake Clarke**
Request ID: **RQ-2023-07-17-22**
Customer: **SE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
2199 South Rock Road
Fort Pierce, FL 34945
Attn: Jordan Skaggs

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: Chris Bowen, Environmental Administrator

Date Certified: 03-AUG-2023 08:50



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 outflow East of Pine Tree Ln

Collection Date/Time: 07/17/2023 09:55

Field ID: G3SE0077

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2424577	DEP SOP: NU-094-1	Color (true)	35		PCU	P432650	
	EPA 180.1 Rev. 2.0	Turbidity	2.8	A	NTU	P432656	
	EPA 300.0 Rev. 2.1	Chloride	43		mg Cl/L	P432802	
		Sulfate	19		mg SO4/L	P432804	
	SM 2320 B-2011	Total Alkalinity	155		mg CaCO3/L	P432744	
	SM 2540 C-2015	TDS	283		mg/L	P433230	
	SM 2540 D-2015	TSS	5	I	mg/L	P433083	
	SM 4500-F- C-2011	Fluoride	0.13		mg F/L	P432747	
2424584	EPA 350.1 Rev. 2.0	Ammonia-N	0.071		mg N/L	P432864	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.91		mg N/L	P432749	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.10		mg N/L	P432689	
	EPA 365.1 Rev. 2.0	Total-P	0.059		mg P/L	P432681	
	SM 5310 B-2011	Organic Carbon	9.0		mg C/L	P432840	

Ref. Method and Comment:

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

EPA 350.1 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Lake Clarke Center

Collection Date/Time: 07/17/2023 09:40

Field ID: G3SE0043

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2424591	DEP SOP: NU-094-1	Color (true)	38		PCU	P432651	
	EPA 180.1 Rev. 2.0	Turbidity	3.2		NTU	P432656	
	EPA 300.0 Rev. 2.1	Chloride	40		mg Cl/L	P432802	
		Sulfate	16		mg SO4/L	P432804	
	SM 2320 B-2011	Total Alkalinity	151	A	mg CaCO3/L	P432744	
	SM 2540 C-2015	TDS	270	A	mg/L	P433231	
	SM 2540 D-2015	TSS	4	IA	mg/L	P433084	
2424592	SM 4500-F- C-2011	Fluoride	0.12		mg F/L	P432747	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.048		mg N/L	P432864	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P432749	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.054		mg N/L	P432690	
	EPA 365.1 Rev. 2.0	Total-P	0.054		mg P/L	P432681	
2424623	SM 5310 B-2011	Organic Carbon	9.3		mg C/L	P432840	
	EPA 8321B	2,4-D	0.050		ug/L	P432629	
		Acesulfame K	0.25	I	ug/L	P432617	
		2,4,5-T	0.0040	U	ug/L	P432629	
		AMPA	0.76		ug/L	P432617	
		Acetaminophen	0.0080	U	ug/L	P432629	
		Acetamiprid	0.0020	U	ug/L	P432629	
		Endothall	0.25	U	ug/L	P432617	
		Glufosinate	0.10	U	ug/L	P432617	
		Glyphosate	2.5		ug/L	P432617	
		Afidopyropen	0.0020	U	ug/L	P432629	
		Bentazon	0.12		ug/L	P432629	
		Sucralose	0.69		ug/L	P432617	
		Benzovindiflupyr	0.0020	U	ug/L	P432629	
		Carbamazepine	0.0017	I	ug/L	P432629	
		Clothianidin	0.0020	U	ug/L	P432629	
		Dinotefuran	0.0051	I	ug/L	P432629	
		Diuron	0.013		ug/L	P432629	
		Fenuron	0.032	U	ug/L	P432629	
		Fluridone	0.082		ug/L	P432629	
		Imazapyr	0.27		ug/L	P432629	
		Hydrocodone	0.0020	U	ug/L	P432629	
		Ibuprofen	0.080	U	ug/L	P432629	
		Imidacloprid	0.068		ug/L	P432629	
		Linuron	0.0040	U	ug/L	P432629	
		Mandestrobin	0.0020	U	ug/L	P432629	
		MCPP	0.0036	I	ug/L	P432629	
		Naproxen	0.0080	U	ug/L	P432629	
		Primidone	0.0040	U	ug/L	P432629	
		Pyraclostrobin	0.0020	U	ug/L	P432629	
		Silvex	0.0040	U	ug/L	P432629	
		Thiamethoxam	0.0020	U	ug/L	P432629	

Field ID: G3SE0043

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2424623	EPA 8321B	Tolfenpyrad	0.0020	U	ug/L	P432629	
		Triclopyr	0.0040	U	ug/L	P432629	

Ref. Method and Comment:
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 350.1 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Lake Clarke inflow 5 S Congress Ave above Cayman Dr

Collection Date/Time: 07/17/2023 10:20

Field ID: G3SE0076

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2424578	DEP SOP: NU-094-1	Color (true)	79		PCU	P432650	
	EPA 180.1 Rev. 2.0	Turbidity	3.7		NTU	P432656	
	EPA 300.0 Rev. 2.1	Chloride	31		mg Cl/L	P432802	
		Sulfate	11		mg SO4/L	P432804	
	SM 2320 B-2011	Total Alkalinity	101		mg CaCO3/L	P432744	
	SM 2540 C-2015	TDS	210		mg/L	P433230	
	SM 2540 D-2015	TSS	5	I	mg/L	P433083	
	SM 4500-F- C-2011	Fluoride	0.056	I	mg F/L	P432747	
2424585	EPA 350.1 Rev. 2.0	Ammonia-N	0.14		mg N/L	P432864	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.99		mg N/L	P432749	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.040		mg N/L	P432689	
	EPA 365.1 Rev. 2.0	Total-P	0.053		mg P/L	P432681	
	SM 5310 B-2011	Organic Carbon	14		mg C/L	P432840	

Ref. Method and Comment:

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

EPA 350.1 Rev. 2.0: 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: 07/17/2023 10:30

Field ID: G3SE0075

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2424579	DEP SOP: NU-094-1	Color (true)	53		PCU	P432650	
	EPA 180.1 Rev. 2.0	Turbidity	1.7		NTU	P432656	
	EPA 300.0 Rev. 2.1	Chloride	15		mg Cl/L	P432802	
		Sulfate	6.7		mg SO4/L	P432804	
	SM 2320 B-2011	Total Alkalinity	71		mg CaCO3/L	P432744	
	SM 2540 C-2015	TDS	140		mg/L	P433230	
	SM 2540 D-2015	TSS	2	I	mg/L	P433083	
	SM 4500-F- C-2011	Fluoride	0.045	I	mg F/L	P432747	
2424586	EPA 350.1 Rev. 2.0	Ammonia-N	0.13		mg N/L	P432864	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.60		mg N/L	P432749	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.20		mg N/L	P432689	
	EPA 365.1 Rev. 2.0	Total-P	0.065		mg P/L	P432681	
	SM 5310 B-2011	Organic Carbon	9.4		mg C/L	P432840	

Ref. Method and Comment:

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

EPA 350.1 Rev. 2.0: 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: 07/17/2023 10:45

Field ID: G3SE0074

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2424580	DEP SOP: NU-094-1	Color (true)	64	A	PCU	P432651	
	EPA 180.1 Rev. 2.0	Turbidity	2.4		NTU	P432656	
	EPA 300.0 Rev. 2.1	Chloride	21		mg Cl/L	P432802	
		Sulfate	7.7		mg SO4/L	P432804	
	SM 2320 B-2011	Total Alkalinity	101		mg CaCO3/L	P432744	
	SM 2540 C-2015	TDS	174		mg/L	P433230	
	SM 2540 D-2015	TSS	3	I	mg/L	P433083	
	SM 4500-F- C-2011	Fluoride	0.054	I	mg F/L	P432747	
2424587	EPA 350.1 Rev. 2.0	Ammonia-N	0.28		mg N/L	P432864	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.85		mg N/L	P432749	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.16		mg N/L	P432689	
	EPA 365.1 Rev. 2.0	Total-P	0.10		mg P/L	P432681	
	SM 5310 B-2011	Organic Carbon	10		mg C/L	P432840	

Ref. Method and Comment:

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

EPA 350.1 Rev. 2.0: 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: 07/17/2023 11:00

Field ID: G3SE0073

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2424581	DEP SOP: NU-094-1	Color (true)	50		PCU	P432651	
	EPA 180.1 Rev. 2.0	Turbidity	2.6		NTU	P432656	
	EPA 300.0 Rev. 2.1	Chloride	23	A	mg Cl/L	P432802	
		Sulfate	8.7	A	mg SO4/L	P432804	
	SM 2320 B-2011	Total Alkalinity	134		mg CaCO3/L	P432744	
	SM 2540 C-2015	TDS	216		mg/L	P433230	
	SM 2540 D-2015	TSS	5	I	mg/L	P433083	
	SM 4500-F- C-2011	Fluoride	0.061	I	mg F/L	P432747	
2424588	EPA 350.1 Rev. 2.0	Ammonia-N	0.21		mg N/L	P432983	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.87		mg N/L	P432749	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.15		mg N/L	P432690	
	EPA 365.1 Rev. 2.0	Total-P	0.12		mg P/L	P432681	
	SM 5310 B-2011	Organic Carbon	8.6		mg C/L	P432840	

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: Lake Clarke inflow 1 S Congress Ave above Collin Dr

Collection Date/Time: 07/17/2023 11:20

Field ID: G3SE0072

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2424582	DEP SOP: NU-094-1	Color (true)	61		PCU	P432651	
	EPA 180.1 Rev. 2.0	Turbidity	4.0		NTU	P432656	
	EPA 300.0 Rev. 2.1	Chloride	20		mg Cl/L	P432802	
		Sulfate	10		mg SO4/L	P432804	
	SM 2320 B-2011	Total Alkalinity	95		mg CaCO3/L	P432744	
	SM 2540 C-2015	TDS	157		mg/L	P433230	
	SM 2540 D-2015	TSS	4	I	mg/L	P433083	
	SM 4500-F- C-2011	Fluoride	0.045	I	mg F/L	P432747	
2424589	EPA 350.1 Rev. 2.0	Ammonia-N	0.16		mg N/L	P432864	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.78		mg N/L	P432749	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.30		mg N/L	P432690	
	EPA 365.1 Rev. 2.0	Total-P	0.090		mg P/L	P432681	
	SM 5310 B-2011	Organic Carbon	9.8		mg C/L	P432840	

Ref. Method and Comment:

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

EPA 350.1 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: C 51 East near Belvedere

Collection Date/Time: 07/17/2023 11:40

Field ID: G3SE0053

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2424583	DEP SOP: NU-094-1	Color (true)	33		PCU	P432651	
	EPA 180.1 Rev. 2.0	Turbidity	3.8		NTU	P432656	
	EPA 300.0 Rev. 2.1	Chloride	18		mg Cl/L	P432802	
		Sulfate	8.4		mg SO4/L	P432804	
	SM 2320 B-2011	Total Alkalinity	93		mg CaCO3/L	P432744	
	SM 2540 C-2015	TDS	158		mg/L	P433230	
	SM 2540 D-2015	TSS	5	I	mg/L	P433083	
	SM 4500-F- C-2011	Fluoride	0.073	I	mg F/L	P432747	
2424590	EPA 350.1 Rev. 2.0	Ammonia-N	0.13		mg N/L	P432864	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.69		mg N/L	P432749	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.069		mg N/L	P432690	
	EPA 365.1 Rev. 2.0	Total-P	0.075		mg P/L	P432681	
	SM 5310 B-2011	Organic Carbon	6.3		mg C/L	P432840	

Ref. Method and Comment:

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

EPA 350.1 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P432650

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: DEP SOP: NU-094-1
Batch ID: P432651

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P432656

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P432802

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P432804

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P432864

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P432983

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P432749

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P432689

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P432690

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P432681

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

Reference Method: EPA 8321B
Batch ID: P432617

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: P432629

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

Quality Assurance Report

Method Blank Results

Reference Method: SM 2320 B-2011
Batch ID: P432744

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

Reference Method: SM 2540 C-2015
Batch ID: P433230

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-2015
Batch ID: P433231

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P433083

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P433084

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P432747

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P432840

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: P432650

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

Reference Method: DEP SOP: NU-094-1
Batch ID: P432651

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: P432656

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P432802

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P432804

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	96.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P432864

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	94.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P432983

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P432749

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P432689

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P432690

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

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P432681

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

Reference Method: EPA 8321B

Batch ID: P432617

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	98.1		P	40 - 150
AMPA	126		P	40 - 150
Endothall	110		P	40 - 150
Glufosinate	84.1		P	40 - 150
Glyphosate	86.3		P	40 - 150
Sucralose	107		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P432629

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	82.0		P	40 - 150
2,4,5-T	68.9		P	40 - 150
Acetaminophen	70.7		P	30 - 150
Acetamiprid	75.7		P	40 - 150
Afidopyropen	69.0		P	30 - 150
Bentazon	131		P	30 - 150
Benzovindiflupyr	92.3		P	40 - 150
Carbamazepine	75.3		P	40 - 150
Clothianidin	84.8		P	40 - 150
Dinotefuran	92.3		P	40 - 150
Diuron	71.7		P	40 - 150
Fenuron	101		P	40 - 150
Fluridone	92.6		P	40 - 150
Hydrocodone	84.7		P	40 - 150
Ibuprofen	67.9		P	40 - 150
Imazapyr	84.9		P	40 - 150
Imidacloprid	77.9		P	40 - 150
Linuron	69.3		P	40 - 150
Mandestrobin	91.3		P	40 - 150
MCPP	84.3		P	40 - 150
Naproxen	72.8		P	40 - 150
Primidone	78.8		P	40 - 150
Pyraclostrobin	87.3		P	40 - 150
Silvex	77.1		P	40 - 150
Thiamethoxam	91.3		P	40 - 150
Tolfenpyrad	60.6		P	30 - 150
Triclopyr	68.6		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P432744

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	96.3		P	92 - 105

Reference Method: SM 2540 C-2015
Batch ID: P433230

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

Reference Method: SM 2540 C-2015
Batch ID: P433231

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	98.0		P	90 - 110

Reference Method: SM 2540 D-2015
Batch ID: P433083

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	103		P	85 - 106

Reference Method: SM 2540 D-2015
Batch ID: P433084

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	89.7		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P432747

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	105		P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P432840

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.0		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P432802

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2424581	Chloride	99.6		P	90 - 110
2424701	Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P432804

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2424581	Sulfate	94.0		P	90 - 110
2424701	Sulfate	96.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P432983

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2425311	Ammonia-N	96.4	98.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P432749

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2424586	Kjeldahl Nitrogen	98.0	99.7	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P432689

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2424508	NO2NO3-N	101	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P432690

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2424588	NO2NO3-N	98.0	98.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P432681

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2424584	Total-P	96.9	100	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P432617

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2424524	Acesulfame K	130	136	P/P	40 - 150
2424524	AMPA	83.7	80.8	P/P	40 - 150
2424524	Endothall	94.5	97.2	P/P	40 - 150
2424524	Glufosinate	63.7	65.6	P/P	40 - 150
2424524	Glyphosate	63.0	62.6	P/P	40 - 150
2424524	Sucralose	109	113	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P432629

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2424473	2,4-D	98.9	90.0	P/P	40 - 150
2424473	2,4,5-T	97.9	82.2	P/P	40 - 150
2424473	Acetaminophen	73.7	70.9	P/P	30 - 150
2424473	Acetamiprid	58.0	48.3	P/P	40 - 150
2424473	Afidopyropen	64.3	48.0	P/P	30 - 150
2424473	Bentazon	85.2	79.3	P/P	30 - 150
2424473	Benzovindiflupyr	83.9	77.2	P/P	40 - 150
2424473	Carbamazepine	51.8	46.5	P/P	40 - 150
2424473	Clothianidin	76.5	70.0	P/P	40 - 150
2424473	Dinotefuran	69.1	70.9	P/P	40 - 150
2424473	Diuron	40.4	45.0	P/P	40 - 150
2424473	Fenuron	58.2	51.4	P/P	40 - 150
2424473	Fluridone	76.7	71.5	P/P	40 - 150
2424473	Hydrocodone	60.9	59.2	P/P	40 - 150
2424473	Ibuprofen	65.0	51.8	P/P	40 - 150
2424473	Imazapyr	90.2	83.5	P/P	40 - 150
2424473	Imidacloprid	108	99.2	P/P	40 - 150
2424473	Linuron	47.0	52.0	P/P	40 - 150
2424473	Mandestrobin	82.9	74.6	P/P	40 - 150
2424473	MCCP	105	99.5	P/P	40 - 150
2424473	Naproxen	86.0	77.7	P/P	40 - 150
2424473	Primidone	78.4	66.6	P/P	40 - 150
2424473	Pyraclostrobin	82.9	73.2	P/P	40 - 150
2424473	Silvex	91.1	90.1	P/P	40 - 150
2424473	Thiamethoxam	71.6	69.1	P/P	40 - 150
2424473	Tolfenpyrad	61.4	52.6	P/P	30 - 150
2424473	Triclopyr	89.6	77.6	P/P	40 - 150

Reference Method: SM 4500-F- C-2011

Batch ID: P432747

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2424591	Fluoride	104	106	P/P	94 - 106

Reference Method: SM 5310 B-2011

Batch ID: P432840

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2424453	Organic Carbon	93.6	95.0	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P432650

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2424501	Color (true)	9.16	Sample	P	0 - 20

Reference Method: DEP SOP: NU-094-1
Batch ID: P432651

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2424580	Color (true)	6.55	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P432656

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2424577	Turbidity	2.16	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P432802

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2424581	Chloride	0.379	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P432804

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2424581	Sulfate	0.0460	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P432864

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2424584	Ammonia-N	0.414	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P432983

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2425311	Ammonia-N	1.57	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P432749

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2424586	Kjeldahl Nitrogen	1.27	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P432689

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2424508	NO2NO3-N	0.443	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P432690

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2424588	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P432681

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2424584	Total-P	2.82	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P432617

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2424524	Acesulfame K	3.94	Spike	P	0 - 30
2424524	AMPA	3.60	Spike	P	0 - 30
2424524	Endothall	2.85	Spike	P	0 - 30
2424524	Glufosinate	3.00	Spike	P	0 - 30
2424524	Glyphosate	0.581	Spike	P	0 - 30
2424524	Sucralose	3.45	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P432629

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2424473	2,4-D	9.44	Spike	P	0 - 30
2424473	2,4,5-T	17.5	Spike	P	0 - 30
2424473	Acetaminophen	3.84	Spike	P	0 - 30
2424473	Acetamiprid	18.3	Spike	P	0 - 30
2424473	Afidopyropen	28.9	Spike	P	0 - 30
2424473	Bentazon	7.25	Spike	P	0 - 30
2424473	Benzovindiflupyr	8.31	Spike	P	0 - 30
2424473	Carbamazepine	10.8	Spike	P	0 - 30
2424473	Clothianidin	8.83	Spike	P	0 - 30
2424473	Dinotefuran	2.56	Spike	P	0 - 30
2424473	Diuron	10.6	Spike	P	0 - 30
2424473	Fenuron	12.3	Spike	P	0 - 30
2424473	Fluridone	6.96	Spike	P	0 - 30
2424473	Hydrocodone	2.85	Spike	P	0 - 30
2424473	Ibuprofen	22.7	Spike	P	0 - 30
2424473	Imazapyr	6.22	Spike	P	0 - 30
2424473	Imidacloprid	8.13	Spike	P	0 - 30
2424473	Linuron	10.2	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P432629

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2424473	Mandestrobin	10.5	Spike	P	0 - 30
2424473	MCCP	5.55	Spike	P	0 - 30
2424473	Naproxen	10.2	Spike	P	0 - 30
2424473	Primidone	16.3	Spike	P	0 - 30
2424473	Pyraclostrobin	12.5	Spike	P	0 - 30
2424473	Silvex	1.10	Spike	P	0 - 30
2424473	Thiamethoxam	3.45	Spike	P	0 - 30
2424473	Tolfenpyrad	15.4	Spike	P	0 - 30
2424473	Triclopyr	14.4	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P432744

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2424591	Total Alkalinity	0.0395	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P433230

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2424465	TDS	4.86	Sample	P	0 - 10

Reference Method: SM 2540 C-2015
Batch ID: P433231

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2424591	TDS	6.28	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P432747

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2424591	Fluoride	1.47	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2011
Batch ID: P432840

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2424453	Organic Carbon	0.971	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2424623
Field Sample ID: G3SE0043

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	96.3	P	30 - 160
EPA 8321B	Acetaminophen-d4	58.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	52.4	P	30 - 160
EPA 8321B	Diuron-d6	30.5	P	30 - 160
EPA 8321B	Endothall-d6	95.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	64.9	P	30 - 160
EPA 8321B	Ibuprofen-d3	61.5	P	30 - 160
EPA 8321B	Primidone-d5	73.4	P	30 - 160
EPA 8321B	Sucralose-d6	114	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A120464

Included Lab Sample IDs: 2424577, 2424578, 2424579, 2424580, 2424581, 2424582, 2424583, 2424591

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	103	P/P	90 - 110
Color (true)	103	101	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A120467

Included Lab Sample IDs: 2424577, 2424578, 2424579, 2424580, 2424581, 2424582, 2424583, 2424591

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A120479

Included Lab Sample IDs: 2424577, 2424578, 2424579, 2424580, 2424581, 2424582, 2424583, 2424591

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.2	99.7	P/P	90 - 110
Sulfate	99.0	99.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A120484

Included Lab Sample IDs: 2424584, 2424585, 2424586, 2424587, 2424588, 2424589, 2424590, 2424592

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

Reference Method: EPA 8321B

Run ID: A120504

Included Lab Sample IDs: 2424623

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	105	115	P/P	60 - 160
Sucralose	95.5	102	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A120505

Included Lab Sample IDs: 2424623

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	83.0	105	P/P	60 - 160
Endothall	125	97.0	P/P	60 - 160
Glufosinate	87.7	80.1	P/P	60 - 160
Glyphosate	98.3	94.5	P/P	60 - 160

Reference Method: SM 2320 B-2011

Run ID: A120511

Included Lab Sample IDs: 2424577, 2424578, 2424579, 2424580, 2424581, 2424582, 2424583, 2424591

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	94.8	95.6	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-2011

Run ID: A120511

Included Lab Sample IDs: 2424577, 2424578, 2424579, 2424580, 2424581, 2424582, 2424583, 2424591

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	95.6	95.2	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A120511

Included Lab Sample IDs: 2424577, 2424578, 2424579, 2424580, 2424581, 2424582, 2424583, 2424591

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	105	107	P/P	90 - 110
Fluoride	106	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A120520

Included Lab Sample IDs: 2424584, 2424585, 2424586, 2424587, 2424588, 2424589, 2424590

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A120523

Included Lab Sample IDs: 2424592

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

Reference Method: SM 5310 B-2011

Run ID: A120551

Included Lab Sample IDs: 2424584, 2424585, 2424586, 2424587, 2424588, 2424589, 2424590, 2424592

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.0	96.4	P/P	90 - 110
Organic Carbon	96.4	95.5	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A120559

Included Lab Sample IDs: 2424584, 2424585, 2424586, 2424587, 2424589, 2424590, 2424592

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.8	98.4	P/P	90 - 110
Ammonia-N	98.6	97.8	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A120571

Included Lab Sample IDs: 2424623

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	104	115	P/P	50 - 150
2,4,5-T	99.5	98.5	P/P	50 - 150
Acetaminophen	106	96.8	P/P	60 - 160
Acetamiprid	123	123	P/P	50 - 150
Afidopyropen	115	126	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A120571
Included Lab Sample IDs: 2424623

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bentazon	123	127	P/P	50 - 160
Benzovindiflupyr	111	125	P/P	50 - 150
Carbamazepine	125	118	P/P	60 - 150
Clothianidin	118	104	P/P	60 - 150
Dinotefuran	108	110	P/P	50 - 150
Diuron	131	124	P/P	60 - 160
Fenuron	112	112	P/P	60 - 150
Fluridone	128	129	P/P	60 - 160
Hydrocodone	117	118	P/P	60 - 150
Ibuprofen	75.4	96.0	P/P	50 - 160
Imazapyr	97.2	95.4	P/P	50 - 150
Imidacloprid	102	97.8	P/P	60 - 150
Linuron	97.2	86.8	P/P	60 - 150
Mandestrobin	118	123	P/P	50 - 150
MCPP	101	101	P/P	50 - 150
Naproxen	75.3	89.9	P/P	50 - 160
Primidone	96.6	105	P/P	60 - 150
Pyraclostrobin	121	128	P/P	60 - 150
Silvex	98.8	102	P/P	50 - 150
Thiamethoxam	134	115	P/P	50 - 150
Tolfenpyrad	117	116	P/P	60 - 150
Triclopyr	100	96.8	P/P	50 - 150

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A120610
Included Lab Sample IDs: 2424584, 2424585, 2424586, 2424587, 2424588, 2424589, 2424590, 2424592

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	102	104	P/P	90 - 110
Kjeldahl Nitrogen	104	95.0	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A120620
Included Lab Sample IDs: 2424588

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	102	97.5	P/P	90 - 110

* Pass/Fail determinations are made for each bracketing calibration verification check.
Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.
Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
DEP SOP: NU-094-1	Color (true)	102				9.16	
	Color (true)	101				6.55	
EPA 180.1 Rev. 2.0	Turbidity	100				2.16	
EPA 300.0 Rev. 2.1	Chloride	98.7	99.6	101		0.379	
	Sulfate	96.4	94.0	96.7		0.0460	
EPA 350.1 Rev. 2.0	Ammonia-N	94.4					0.414
	Ammonia-N	99.8	96.4	98.0			1.57
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	102	98.0	99.7			1.27
EPA 353.2 Rev. 2.0	NO2NO3-N	99.5	101	101			0.443
	NO2NO3-N	100	98.0	98.0			0.0
EPA 365.1 Rev. 2.0	Total-P	99.2	96.9	100			2.82
EPA 8321B	2,4-D	82.0	98.9	90.0			9.44
	2,4,5-T	68.9	97.9	82.2			17.5
	Acesulfame K	98.1	130	136			3.94
	Acetaminophen	70.7	73.7	70.9			3.84
	Acetamiprid	75.7	58.0	48.3			18.3
	Afidopyropen	69.0	64.3	48.0			28.9
	AMPA	126	80.8	83.7			3.60
	Bentazon	131	85.2	79.3			7.25
	Benzovindiflupyr	92.3	83.9	77.2			8.31
	Carbamazepine	75.3	51.8	46.5			10.8
	Clothianidin	84.8	76.5	70.0			8.83
	Dinotefuran	92.3	69.1	70.9			2.56
	Diuron	71.7	40.4	45.0			10.6
	Endothall	110	94.5	97.2			2.85
	Fenuron	101	58.2	51.4			12.3
	Fluridone	92.6	76.7	71.5			6.96
	Glufosinate	84.1	63.7	65.6			3.00
	Glyphosate	86.3	62.6	63.0			0.581
	Hydrocodone	84.7	60.9	59.2			2.85
	Ibuprofen	67.9	65.0	51.8			22.7
	Imazapyr	84.9	90.2	83.5			6.22
	Imidacloprid	77.9	108	99.2			8.13
	Linuron	69.3	47.0	52.0			10.2
	Mandestrobin	91.3	82.9	74.6			10.5
	MCPP	84.3	105	99.5			5.55
	Naproxen	72.8	86.0	77.7			10.2
	Primidone	78.8	78.4	66.6			16.3
	Pyraclostrobin	87.3	82.9	73.2			12.5
	Silvex	77.1	91.1	90.1			1.10
	Sucralose	107	109	113			3.45
	Thiamethoxam	91.3	71.6	69.1			3.45
	Tolfenpyrad	60.6	61.4	52.6			15.4
	Triclopyr	68.6	89.6	77.6			14.4
SM 2320 B-2011	Total Alkalinity	96.3				0.0395	
SM 2540 C-2015	TDS	102				4.86	
	TDS	98.0				6.28	
SM 2540 D-2015	TSS	103					
	TSS	89.7					
SM 4500-F- C-2011	Fluoride	105	104	106			1.47
SM 5310 B-2011	Organic Carbon	94.0	93.6	95.0			0.971

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2424577, 2424578, 2424579, 2424580, 2424581, 2424582, 2424583, 2424591
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2424577, 2424578, 2424579, 2424580, 2424581, 2424582, 2424583, 2424591
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2424577, 2424578, 2424579, 2424580, 2424581, 2424582, 2424583, 2424591
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2424577, 2424578, 2424579, 2424580, 2424581, 2424582, 2424583, 2424591
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2424584, 2424585, 2424586, 2424587, 2424588, 2424589, 2424590, 2424592
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2424584, 2424585, 2424586, 2424587, 2424588, 2424589, 2424590, 2424592
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2424584, 2424585, 2424586, 2424587, 2424588, 2424589, 2424590, 2424592
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2424584, 2424585, 2424586, 2424587, 2424588, 2424589, 2424590, 2424592
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2424623
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2424577, 2424578, 2424579, 2424580, 2424581, 2424582, 2424583, 2424591
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2424577, 2424578, 2424579, 2424580, 2424581, 2424582, 2424583, 2424591
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2424577, 2424578, 2424579, 2424580, 2424581, 2424582, 2424583, 2424591
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2424577, 2424578, 2424579, 2424580, 2424581, 2424582, 2424583, 2424591
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2424584, 2424585, 2424586, 2424587, 2424588, 2424589, 2424590, 2424592

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	07/18/2023			07/18/2023 14:49	Chandler E Cox	2424577
	07/18/2023			07/18/2023 14:50	Chandler E Cox	2424578, 2424579
	07/18/2023			07/18/2023 14:55	Chandler E Cox	2424580
	07/18/2023			07/18/2023 14:56	Chandler E Cox	2424581, 2424582
	07/18/2023			07/18/2023 14:57	Chandler E Cox	2424583
	07/18/2023			07/18/2023 14:58	Chandler E Cox	2424591
	07/18/2023			07/18/2023 14:21	Anna M. Plaviak	2424577
EPA 180.1 Rev. 2.0	07/18/2023			07/18/2023 14:22	Anna M. Plaviak	2424578
	07/18/2023			07/18/2023 14:23	Anna M. Plaviak	2424579
	07/18/2023			07/18/2023 14:24	Anna M. Plaviak	2424580
	07/18/2023			07/18/2023 14:25	Anna M. Plaviak	2424581
	07/18/2023			07/18/2023 14:26	Anna M. Plaviak	2424582
	07/18/2023			07/18/2023 14:27	Anna M. Plaviak	2424583
	07/18/2023			07/18/2023 14:29	Anna M. Plaviak	2424591
EPA 300.0 Rev. 2.1	07/18/2023			07/20/2023 10:14	James L Waggeberby	2424581
	07/18/2023			07/20/2023 11:14	James L Waggeberby	2424577
	07/18/2023			07/20/2023 11:29	James L Waggeberby	2424578
	07/18/2023			07/20/2023 11:44	James L Waggeberby	2424579
	07/18/2023			07/20/2023 11:59	James L Waggeberby	2424580
	07/18/2023			07/20/2023 12:14	James L Waggeberby	2424582
	07/18/2023			07/20/2023 12:29	James L Waggeberby	2424583
EPA 350.1 Rev. 2.0	07/18/2023			07/20/2023 12:44	James L Waggeberby	2424591
	07/18/2023			07/21/2023 13:15	Khloe J Berg	2424584
	07/18/2023			07/21/2023 13:20	Khloe J Berg	2424585
	07/18/2023			07/21/2023 13:21	Khloe J Berg	2424586
	07/18/2023			07/21/2023 13:25	Khloe J Berg	2424589
	07/18/2023			07/21/2023 13:27	Khloe J Berg	2424590
	07/18/2023			07/21/2023 13:28	Khloe J Berg	2424592
EPA 351.2 Rev. 2.0	07/18/2023			07/21/2023 14:45	Khloe J Berg	2424587
	07/18/2023			07/25/2023 13:23	Ping Hua	2424588
	07/18/2023	07/20/2023 15:28	Simonne.V. Calhoun	07/25/2023 09:46	Samantha L Bates	2424584
	07/18/2023	07/20/2023 15:28	Simonne.V. Calhoun	07/25/2023 09:48	Samantha L Bates	2424585
	07/18/2023	07/20/2023 15:28	Simonne.V. Calhoun	07/25/2023 09:53	Samantha L Bates	2424586
	07/18/2023	07/20/2023 15:28	Simonne.V. Calhoun	07/25/2023 09:57	Samantha L Bates	2424587
	07/18/2023	07/20/2023 15:28	Simonne.V. Calhoun	07/25/2023 09:59	Samantha L Bates	2424588
EPA 353.2 Rev. 2.0	07/18/2023	07/20/2023 15:28	Simonne.V. Calhoun	07/25/2023 10:01	Samantha L Bates	2424589
	07/18/2023	07/20/2023 15:28	Simonne.V. Calhoun	07/25/2023 10:02	Samantha L Bates	2424590
	07/18/2023	07/20/2023 15:28	Simonne.V. Calhoun	07/25/2023 10:04	Samantha L Bates	2424592
	07/18/2023			07/19/2023 10:24	Beverly Y. Sanders	2424584
	07/18/2023			07/19/2023 10:25	Beverly Y. Sanders	2424585

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 353.2 Rev. 2.0	07/18/2023			07/19/2023 10:26	Beverly Y. Sanders	2424586
	07/18/2023			07/19/2023 10:27	Beverly Y. Sanders	2424587
	07/18/2023			07/19/2023 10:35	Beverly Y. Sanders	2424588
	07/18/2023			07/19/2023 10:41	Beverly Y. Sanders	2424589
	07/18/2023			07/19/2023 10:42	Beverly Y. Sanders	2424590
	07/18/2023			07/19/2023 10:43	Beverly Y. Sanders	2424592
EPA 365.1 Rev. 2.0	07/18/2023	07/19/2023 15:38	Adam P Silver	07/20/2023 13:25	Simonne.V. Calhoun	2424584
	07/18/2023	07/19/2023 15:38	Adam P Silver	07/20/2023 13:30	Simonne.V. Calhoun	2424585
	07/18/2023	07/19/2023 15:38	Adam P Silver	07/20/2023 13:31	Simonne.V. Calhoun	2424586, 2424587
	07/18/2023	07/19/2023 15:38	Adam P Silver	07/20/2023 13:32	Simonne.V. Calhoun	2424588
	07/18/2023	07/19/2023 15:38	Adam P Silver	07/20/2023 13:33	Simonne.V. Calhoun	2424589
	07/18/2023	07/19/2023 15:38	Adam P Silver	07/20/2023 13:36	Simonne.V. Calhoun	2424590
EPA 8321B	07/18/2023	07/19/2023 15:38	Adam P Silver	07/20/2023 14:39	Simonne.V. Calhoun	2424592
	07/18/2023	07/19/2023 03:00	Tae K Lee	07/19/2023 06:43	Tae K Lee	2424623
	07/18/2023	07/19/2023 03:00	Tae K Lee	07/19/2023 11:06	Tae K Lee	2424623
	07/18/2023	07/19/2023 14:00	Hoor Shaik	07/21/2023 07:22	Juyoung Kim	2424623
SM 2320 B-2011	07/18/2023	07/19/2023 14:00	Hoor Shaik	07/21/2023 13:24	Juyoung Kim	2424623
	07/18/2023			07/20/2023 01:08	Dale L. Simmons	2424591
	07/18/2023			07/20/2023 01:32	Dale L. Simmons	2424577
	07/18/2023			07/20/2023 01:46	Dale L. Simmons	2424578
	07/18/2023			07/20/2023 02:34	Dale L. Simmons	2424579
	07/18/2023			07/20/2023 02:48	Dale L. Simmons	2424580
	07/18/2023			07/20/2023 03:02	Dale L. Simmons	2424581
	07/18/2023			07/20/2023 03:16	Dale L. Simmons	2424582
SM 2540 C-2015	07/18/2023			07/20/2023 03:30	Dale L. Simmons	2424583
	07/18/2023			07/21/2023 17:02	Yijie Li	2424577, 2424578, 2424579, 2424580, 2424581, 2424582, 2424583, 2424591
SM 2540 D-2015	07/18/2023			07/21/2023 17:02	Yijie Li	2424577, 2424578, 2424579, 2424580, 2424581, 2424582, 2424583, 2424591
SM 4500-F- C-2011	07/18/2023			07/20/2023 00:57	Dale L. Simmons	2424591
	07/18/2023			07/20/2023 01:32	Dale L. Simmons	2424577
	07/18/2023			07/20/2023 01:46	Dale L. Simmons	2424578
	07/18/2023			07/20/2023 02:34	Dale L. Simmons	2424579
	07/18/2023			07/20/2023 02:48	Dale L. Simmons	2424580
	07/18/2023			07/20/2023 03:02	Dale L. Simmons	2424581
	07/18/2023			07/20/2023 03:16	Dale L. Simmons	2424582
	07/18/2023			07/20/2023 03:30	Dale L. Simmons	2424583
SM 5310 B-2011	07/18/2023			07/20/2023 18:48	Khloe J Berg	2424584
	07/18/2023			07/20/2023 19:02	Khloe J Berg	2424585
	07/18/2023			07/20/2023 19:16	Khloe J Berg	2424586

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 5310 B-2011	07/18/2023			07/20/2023 19:30	Khloe J Berg	2424587
	07/18/2023			07/20/2023 20:12	Khloe J Berg	2424588
	07/18/2023			07/20/2023 20:26	Khloe J Berg	2424589
	07/18/2023			07/20/2023 20:40	Khloe J Berg	2424590
	07/18/2023			07/20/2023 20:55	Khloe J Berg	2424592