

Chemical Analysis Report

SE-DIST-2023-12-14-01

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

Event Description: **Lake Clarke**
Request ID: **RQ-2023-11-13-51**
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
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Certified by: Colin Wright, Program Administrator

Date Certified: 04-JAN-2024 10:25

A handwritten signature in black ink, appearing to read "Colin Wright", is shown on a white background.

Case Narrative

Unless otherwise noted, all samples included in this report were received in accordance with protocols referenced in Chapter 62-160, Florida Administrative Code (F.A.C.). Results published in this report pertain only to the samples as submitted to, and received by the laboratory. All times in this report are adjusted to the applicable Eastern Time Zone (EST or EDT).

Results for the following analytical groups are included in this report: Nutrients and Pesticides.

Scientific notation may be used in reporting very large or small values. Values reported using scientific notation will take the form of the following example: 1.3E+03, which is equivalent to 1.3×10^3 or 1300.

Unless otherwise noted, analytical values for soil and sediment samples are reported on a dry weight basis, and analytical values for waste and tissue samples are reported on a wet weight basis.

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited by the Florida Department of Health Environmental Laboratory Certification Program or where accreditation for that field of testing is not applicable.

Any significant anomalies or deviations from established protocols are documented in Non-Conformance Reports, which, where appropriate, are included within this analytical report. Additional comments related to specific analytical tests may be included as remarks following the analytical results for each sample. Such comments and remarks are for informational purposes only and are not intended to convey judgement about the usability of the reported data.

A quality control report on the performance of the test method for the submitted samples is included. Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published quality control acceptance limits for each analytical test. Matrix quality control results (matrix spike recoveries and matrix sample precision) pertain only to the matrix sample tested and do not necessarily reflect test method performance for other samples.

Typical matrix quality control (QC) measurements may include matrix spike recovery, matrix spike duplicate recovery, matrix spike precision and matrix sample precision. Not all matrix QC results may be available or reportable; where they are not an explanation is provided. Typical reasons for unavailable QC results include, but are not limited to, a) insufficient matrix sample to perform some or all QC measurements; b) analyte concentration in the sample replicated was too low for a meaningful measurement of precision and c) analyte concentration in the matrix sample spiked was too high (relative to the amount of analyte spiked) for a meaningful measurement of recovery. Where matrix QC results are unavailable, other method performance metrics (e.g., LCS recovery, LCS precision, surrogate recovery) may be used to assess performance of the method. Comments explaining any missing QC measurements are not intended to convey any adverse conclusions about the quality of the reported data.

Precision is reported as relative percent difference unless otherwise noted.

Quality Control codes as defined below may be used in this report to indicate results that are associated with one or more quality control elements which did not fall within established test method criteria. Such results may be qualified as estimates using a J qualifier as required by 62-160 F.A.C. Explanations are included in the report for any results that were reported as estimates for other reasons.

QC Codes used in this report may include:

- LCS – Recovery for the batch Laboratory Control Sample (LCS) was outside existing control limits;
- MS – Recovery for the batch matrix spike (MS) was outside existing control limits;
- CCV – Recovery for a continuing calibration verification (CCV) standard was outside existing control limits;
- SUR – Recovery of a surrogate (SUR) for associated analytes was outside existing control limits;
- RPD – The precision, measured as relative percent difference (RPD), of batch replicate measurements was outside existing control limits;
- RSD – The precision, measured as relative standard deviation (RSD), of batch replicate measurements was outside existing control limits;
- SMP – Sample - used precision derived from replicate analyses of a sample;

The following data qualifiers are used, where applicable, in this report as specified in 62-160 F.A.C.

- A - Value reported is the mean of two or more determinations.
- B - Results based on colony counts outside the acceptable range.
- I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J - Estimated value and/or the analysis did not meet established quality control criteria.
- K - Actual value is known to be less than value given.
- L - Actual value is known to be greater than value given.
- N - Presumptive evidence of presence of material.
- O - Sampled, but analysis lost or not performed.
- Q - Sample held beyond normal holding time.
- T - Value reported is less than the criterion of detection.
- U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
- V - Analyte was detected in both sample and method blank.
- X - Too few individuals to calculate SCI value.
- Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
- Z - Colonies were too numerous to count (TNTC).

Quality control information from overflow laboratories may not be included in this report. Please refer to the associated report from the overflow laboratory for additional information.

Sample Location: Lake Clarke Center

Collection Date/Time: 12/13/2023 09:30

Field ID: G3SE0043

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2456927	DEP SOP: NU-094-1	Color (true)	46		PCU	P438998	
	EPA 180.1 Rev. 2.0	Turbidity	1.9		NTU	P439002	
	EPA 300.0 Rev. 2.1	Chloride	53		mg Cl/L	P439405	
		Sulfate	24		mg SO4/L	P439408	
	SM 2320 B-2011	Total Alkalinity	189		mg CaCO3/L	P439119	
	SM 2540 C-2015	TDS	306		mg/L	P439432	
	SM 2540 D-2015	TSS	2	I	mg/L	P439347	
	SM 4500-F- C-2011	Fluoride	0.16		mg F/L	P439122	
2456928	EPA 350.1 Rev. 2.0	Ammonia-N	0.070		mg N/L	P439217	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.85		mg N/L	P439109	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.31		mg N/L	P439174	
	EPA 365.1 Rev. 2.0	Total-P	0.050		mg P/L	P439046	
	SM 5310 B-2014	Organic Carbon	11		mg C/L	P439358	
2456963	EPA 8321B	Acesulfame K	0.29	I	ug/L	P439028	
		2,4-D	0.019		ug/L	P439060	
		AMPA	1.3		ug/L	P439028	
		2,4,5-T	0.0040	U	ug/L	P439060	
		Acetaminophen	0.0080	U	ug/L	P439060	
		Endothall	0.25	U	ug/L	P439028	
		Acetamiprid	0.0020	U	ug/L	P439060	
		Glufosinate	0.10	U	ug/L	P439028	
		Glyphosate	3.9		ug/L	P439028	
		Afidopyropen	0.0020	U	ug/L	P439060	
		Sucralose	0.45		ug/L	P439028	
		Bentazon	0.033		ug/L	P439060	
		Benzovindiflupyr	0.0020	U	ug/L	P439060	
		Carbamazepine	0.0025	I	ug/L	P439060	
		Clothianidin	0.0020	U	ug/L	P439060	
		Dinotefuran	0.0047	I	ug/L	P439060	
		Diuron	0.0068	I	ug/L	P439060	
		Fenuron	0.032	U	ug/L	P439060	
		Fluridone	0.064		ug/L	P439060	
		Imazapyr	0.23		ug/L	P439060	
		Hydrocodone	0.0020	U	ug/L	P439060	
		Ibuprofen	0.080	U	ug/L	P439060	
		Imidacloprid	0.027		ug/L	P439060	
		Linuron	0.0040	U	ug/L	P439060	
		Mandestrobin	0.0020	U	ug/L	P439060	
		MCPP	0.0020	U	ug/L	P439060	
		Naproxen	0.0080	U	ug/L	P439060	
		Primidone	0.0040	U	ug/L	P439060	
		Pyraclostrobin	0.0020	U	ug/L	P439060	
		Silvex	0.0040	U	ug/L	P439060	
		Thiamethoxam	0.0020	U	ug/L	P439060	

Field ID: G3SE0043

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2456963	EPA 8321B	Tolfenpyrad	0.0020	U	ug/L	P439060	
		Triclopyr	0.0040	U	ug/L	P439060	

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.
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.
EPA 8321B: MS accuracy for glyphosate could not be assessed due to high concentration of parameter in the spiked sample.
EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: LAKE CLARKE OUTFLOW EAST OF PINE TREE LN **Collection Date/Time: 12/13/2023 09:40**

Field ID: G3SE0077

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2456913	DEP SOP: NU-094-1	Color (true)	44	A	PCU	P438998	
	EPA 180.1 Rev. 2.0	Turbidity	2.4	A	NTU	P439002	
	EPA 300.0 Rev. 2.1	Chloride	54		mg Cl/L	P439405	
		Sulfate	25		mg SO4/L	P439408	
	SM 2320 B-2011	Total Alkalinity	190	A	mg CaCO3/L	P439119	
	SM 2540 C-2015	TDS	344		mg/L	P439432	
	SM 2540 D-2015	TSS	3	I	mg/L	P439347	
	SM 4500-F- C-2011	Fluoride	0.17		mg F/L	P439122	
2456920	EPA 350.1 Rev. 2.0	Ammonia-N	0.075		mg N/L	P439217	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.93		mg N/L	P439054	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.32		mg N/L	P439173	
	EPA 365.1 Rev. 2.0	Total-P	0.051		mg P/L	P439046	
	SM 5310 B-2014	Organic Carbon	11		mg C/L	P439358	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

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: 12/13/2023 10:40

Field ID: G3SE0076

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2456914	DEP SOP: NU-094-1	Color (true)	83		PCU	P438998	
	EPA 180.1 Rev. 2.0	Turbidity	4.5		NTU	P439002	
	EPA 300.0 Rev. 2.1	Chloride	35		mg Cl/L	P439405	
		Sulfate	11		mg SO4/L	P439408	
	SM 2320 B-2011	Total Alkalinity	142		mg CaCO3/L	P439119	
	SM 2540 C-2015	TDS	231		mg/L	P439432	
	SM 2540 D-2015	TSS	6	I	mg/L	P439347	
	SM 4500-F- C-2011	Fluoride	0.069	I	mg F/L	P439122	
2456921	EPA 350.1 Rev. 2.0	Ammonia-N	0.12		mg N/L	P439217	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P439054	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.066		mg N/L	P439173	
	EPA 365.1 Rev. 2.0	Total-P	0.053		mg P/L	P439046	
	SM 5310 B-2014	Organic Carbon	16		mg C/L	P439358	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

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: 12/13/2023 10:55

Field ID: G3SE0075

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2456915	DEP SOP: NU-094-1	Color (true)	96		PCU	P438998	
	EPA 180.1 Rev. 2.0	Turbidity	1.7		NTU	P439002	
	EPA 300.0 Rev. 2.1	Chloride	27		mg Cl/L	P439405	
		Sulfate	14		mg SO4/L	P439408	
	SM 2320 B-2011	Total Alkalinity	120		mg CaCO3/L	P439119	
	SM 2540 C-2015	TDS	206		mg/L	P439432	
	SM 2540 D-2015	TSS	4	I	mg/L	P439347	
	SM 4500-F- C-2011	Fluoride	0.063	I	mg F/L	P439122	
2456922	EPA 350.1 Rev. 2.0	Ammonia-N	0.10		mg N/L	P439217	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.86	J	mg N/L	P439054	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.090		mg N/L	P439173	
	EPA 365.1 Rev. 2.0	Total-P	0.041		mg P/L	P439046	
	SM 5310 B-2014	Organic Carbon	16		mg C/L	P439358	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

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.

EPA 351.2 Rev. 2.0: Refer to the Lab Analysis Report for an explanation of QC Codes.

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

Collection Date/Time: 12/13/2023 11:10

Field ID: G3SE0074

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2456916	DEP SOP: NU-094-1	Color (true)	72		PCU	P438998	
	EPA 180.1 Rev. 2.0	Turbidity	3.0		NTU	P439002	
	EPA 300.0 Rev. 2.1	Chloride	34		mg Cl/L	P439405	
		Sulfate	15		mg SO4/L	P439408	
	SM 2320 B-2011	Total Alkalinity	152		mg CaCO3/L	P439119	
	SM 2540 C-2015	TDS	244		mg/L	P439432	
	SM 2540 D-2015	TSS	5	I	mg/L	P439347	
	SM 4500-F- C-2011	Fluoride	0.099	I	mg F/L	P439122	
2456923	EPA 350.1 Rev. 2.0	Ammonia-N	0.26		mg N/L	P439217	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P439054	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.26		mg N/L	P439174	
	EPA 365.1 Rev. 2.0	Total-P	0.066		mg P/L	P439046	
	SM 5310 B-2014	Organic Carbon	14		mg C/L	P439358	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

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: 12/13/2023 11:20

Field ID: G3SE0073

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2456917	DEP SOP: NU-094-1	Color (true)	46		PCU	P438998	
	EPA 180.1 Rev. 2.0	Turbidity	6.9		NTU	P439002	
	EPA 300.0 Rev. 2.1	Chloride	21		mg Cl/L	P439405	
		Sulfate	13		mg SO4/L	P439408	
	SM 2320 B-2011	Total Alkalinity	141		mg CaCO3/L	P439119	
	SM 2540 C-2015	TDS	196		mg/L	P439432	
	SM 2540 D-2015	TSS	9	I	mg/L	P439347	
	SM 4500-F- C-2011	Fluoride	0.059	I	mg F/L	P439122	
2456924	EPA 350.1 Rev. 2.0	Ammonia-N	0.30		mg N/L	P439217	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P439054	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.059		mg N/L	P439174	
	EPA 365.1 Rev. 2.0	Total-P	0.087		mg P/L	P439046	
	SM 5310 B-2014	Organic Carbon	8.9		mg C/L	P439358	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

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 1 S CONGRESS AVE
ABOVE COLLIN DR**

Collection Date/Time: 12/13/2023 11:30

Field ID: G3SE0072

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2456918	DEP SOP: NU-094-1	Color (true)	100		PCU	P438998	
	EPA 180.1 Rev. 2.0	Turbidity	10		NTU	P439002	
	EPA 300.0 Rev. 2.1	Chloride	39		mg Cl/L	P439405	
		Sulfate	20		mg SO4/L	P439408	
	SM 2320 B-2011	Total Alkalinity	152		mg CaCO3/L	P439119	
	SM 2540 C-2015	TDS	258		mg/L	P439432	
	SM 2540 D-2015	TSS	6	I	mg/L	P439347	
	SM 4500-F- C-2011	Fluoride	0.081	I	mg F/L	P439122	
2456925	EPA 350.1 Rev. 2.0	Ammonia-N	0.11		mg N/L	P439217	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P439054	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.50		mg N/L	P439174	
	EPA 365.1 Rev. 2.0	Total-P	0.063		mg P/L	P439046	
	SM 5310 B-2014	Organic Carbon	17		mg C/L	P439358	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

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: 12/13/2023 12:15

Field ID: G3SE0053

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2456919	DEP SOP: NU-094-1	Color (true)	31		PCU	P438998	
	EPA 180.1 Rev. 2.0	Turbidity	4.4		NTU	P439002	
	EPA 300.0 Rev. 2.1	Chloride	37		mg Cl/L	P439405	
		Sulfate	12		mg SO4/L	P439408	
	SM 2320 B-2011	Total Alkalinity	160		mg CaCO3/L	P439119	
	SM 2540 C-2015	TDS	261	A	mg/L	P439432	
	SM 2540 D-2015	TSS	6	IA	mg/L	P439347	
	SM 4500-F- C-2011	Fluoride	0.13		mg F/L	P439122	
2456926	EPA 350.1 Rev. 2.0	Ammonia-N	0.11		mg N/L	P439217	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P439109	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.11		mg N/L	P439174	
	EPA 365.1 Rev. 2.0	Total-P	0.099		mg P/L	P439046	
	SM 5310 B-2014	Organic Carbon	8.5		mg C/L	P439358	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

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: P438998

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P439002

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P439405

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P439408

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P439217

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P439054

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P439109

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P439173

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P439174

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P439046

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

Reference Method: EPA 8321B

Batch ID: P439028

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: P439060

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: P439119

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

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 C-2015
Batch ID: P439432

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P439347

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P439122

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2014
Batch ID: P439358

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: P438998

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.8		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P439002

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P439405

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P439408

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P439217

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	94.0		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P439054

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: P439109

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	98.2		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P439173

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P439174

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P439046

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

Reference Method: EPA 8321B

Batch ID: P439028

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	133		P	40 - 150
AMPA	58.3		P	40 - 160
Endothall	45.4		P	40 - 160
Glufosinate	59.2		P	40 - 160
Glyphosate	47.4		P	40 - 160
Sucralose	83.5		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P439060

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	109		P	40 - 150
2,4,5-T	105		P	40 - 150
Acetaminophen	76.3		P	30 - 150
Acetamiprid	82.4		P	40 - 150
Afidopyropen	68.6		P	30 - 150
Bentazon	56.0		P	30 - 150
Benzovindiflupyr	78.4		P	40 - 150
Carbamazepine	70.7		P	40 - 150
Clothianidin	89.6		P	40 - 150
Dinotefuran	92.9		P	40 - 150
Diuron	66.7		P	40 - 150
Fenuron	140		P	40 - 150
Fluridone	82.1		P	40 - 150
Hydrocodone	89.3		P	40 - 150
Ibuprofen	68.4		P	40 - 150
Imazapyr	90.1		P	40 - 150
Imidacloprid	86.9		P	40 - 150
Linuron	66.5		P	40 - 150
Mandestrobin	84.5		P	40 - 150
MCPP	96.3		P	40 - 150
Naproxen	66.0		P	40 - 150
Primidone	85.0		P	40 - 150
Pyraclostrobin	71.9		P	40 - 150
Silvex	84.7		P	40 - 150
Thiamethoxam	86.7		P	40 - 150
Tolfenpyrad	43.5		P	30 - 150
Triclopyr	121		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P439119

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 2540 C-2015
Batch ID: P439432

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	96.4		P	85 - 115

Reference Method: SM 2540 D-2015
Batch ID: P439347

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

Reference Method: SM 4500-F- C-2011
Batch ID: P439122

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

Reference Method: SM 5310 B-2014
Batch ID: P439358

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	101		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P439405

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2456614	Chloride	99.8		P	90 - 110
2456615	Chloride	99.4		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P439408

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2456614	Sulfate	98.5		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P439054

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2456922	Kjeldahl Nitrogen	111	109	F/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P439109

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2456985	Kjeldahl Nitrogen	101	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P439173

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2456616	NO2NO3-N	98.3	97.3	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P439174

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2456923	NO2NO3-N	99.2		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P439046

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2456924	Total-P	107	105	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P439028

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2456963	Acesulfame K	123	126	P/P	40 - 150
2456963	AMPA	72.3	45.4	P/P	40 - 160
2456963	Endothall	65.0	50.4	P/P	40 - 160
2456963	Glufosinate	74.6	64.9	P/P	40 - 160
2456963	Sucralose	64.6	65.5	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P439060

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2456963	2,4-D	93.2	94.3	P/P	40 - 150
2456963	2,4,5-T	72.0	76.3	P/P	40 - 150
2456963	Acetaminophen	84.1	95.8	P/P	30 - 150
2456963	Acetamiprid	63.5	69.2	P/P	40 - 150
2456963	Afidopyropen	66.6	73.5	P/P	30 - 150
2456963	Benzovindiflupyr	75.8	82.6	P/P	40 - 150
2456963	Carbamazepine	57.1	62.9	P/P	40 - 150
2456963	Clothianidin	88.7	98.1	P/P	40 - 150
2456963	Dinotefuran	77.8	81.7	P/P	40 - 150
2456963	Diuron	54.6	58.6	P/P	40 - 150
2456963	Fenuron	91.4	94.1	P/P	40 - 150
2456963	Fluridone	55.0	78.2	P/P	40 - 150
2456963	Hydrocodone	72.3	75.5	P/P	40 - 150
2456963	Ibuprofen	59.9	62.3	P/P	40 - 150
2456963	Imidacloprid	104	115	P/P	40 - 150
2456963	Linuron	59.4	63.3	P/P	40 - 150
2456963	Mandestrobin	77.4	85.4	P/P	40 - 150
2456963	MCPP	84.5	88.6	P/P	40 - 150
2456963	Naproxen	59.4	78.2	P/P	40 - 150
2456963	Primidone	88.8	100	P/P	40 - 150
2456963	Pyraclostrobin	72.3	80.0	P/P	40 - 150
2456963	Silvex	83.0	87.7	P/P	40 - 150
2456963	Thiamethoxam	74.8	82.3	P/P	40 - 150
2456963	Tolfenpyrad	46.6	54.5	P/P	30 - 150
2456963	Triclopyr	76.2	79.6	P/P	40 - 150

Reference Method: SM 4500-F- C-2011

Batch ID: P439122

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2456913	Fluoride	103	102	P/P	94 - 106

Reference Method: SM 5310 B-2014

Batch ID: P439358

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2456928	Organic Carbon	102	101	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P438998

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2456913	Color (true)	0.679	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P439002

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2456913	Turbidity	2.12	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P439405

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2456614	Chloride	3.17	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P439408

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2456614	Sulfate	2.89	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P439217

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2456670	Ammonia-N	0.443	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P439054

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2456922	Kjeldahl Nitrogen	1.23	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P439109

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2456985	Kjeldahl Nitrogen	0.185	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P439173

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2456616	NO2NO3-N	0.844	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P439174

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2456923	NO2NO3-N	0.875	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P439046

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2456924	Total-P	1.37	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P439028

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2456963	Acesulfame K	2.29	Spike	P	0 - 30
2456963	AMPA	24.3	Spike	P	0 - 30
2456963	Endothall	25.2	Spike	P	0 - 30
2456963	Glufosinate	13.9	Spike	P	0 - 30
2456963	Glyphosate	17.3	Spike	P	0 - 30
2456963	Sucralose	1.15	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P439060

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2456963	2,4-D	0.986	Spike	P	0 - 30
2456963	2,4,5-T	5.69	Spike	P	0 - 30
2456963	Acetaminophen	13.1	Spike	P	0 - 30
2456963	Acetamiprid	8.64	Spike	P	0 - 30
2456963	Afidopyropen	9.82	Spike	P	0 - 30
2456963	Bentazon	3.83	Spike	P	0 - 30
2456963	Benzovindiflupyr	8.56	Spike	P	0 - 30
2456963	Carbamazepine	7.99	Spike	P	0 - 30
2456963	Clothianidin	10.0	Spike	P	0 - 30
2456963	Dinotefuran	4.53	Spike	P	0 - 30
2456963	Diuron	6.14	Spike	P	0 - 30
2456963	Fenuron	2.92	Spike	P	0 - 30
2456963	Fluridone	6.02	Spike	P	0 - 30
2456963	Hydrocodone	4.46	Spike	P	0 - 30
2456963	Ibuprofen	3.91	Spike	P	0 - 30
2456963	Imazapyr	1.95	Spike	P	0 - 30
2456963	Imidacloprid	7.89	Spike	P	0 - 30
2456963	Linuron	6.42	Spike	P	0 - 30
2456963	Mandestrobin	9.82	Spike	P	0 - 30
2456963	MCPP	4.68	Spike	P	0 - 30
2456963	Naproxen	27.4	Spike	P	0 - 30
2456963	Primidone	12.2	Spike	P	0 - 30
2456963	Pyraclostrobin	10.1	Spike	P	0 - 30
2456963	Silvex	5.61	Spike	P	0 - 30
2456963	Thiamethoxam	9.43	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P439060

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2456963	Tolfenpyrad	15.7	Spike	P	0 - 30
2456963	Triclopyr	4.33	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P439119

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2456913	Total Alkalinity	0.584	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P439432

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2456919	TDS	0.766	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P439122

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2456913	Fluoride	0.993	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2014
Batch ID: P439358

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2456928	Organic Carbon	0.444	Spike	P	0 - 15

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

Quality Assurance Report Surrogates

Lab Sample ID: 2456963
Field Sample ID: G3SE0043

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	96.8	P	30 - 160
EPA 8321B	Acetaminophen-d4	85.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	60.8	P	30 - 160
EPA 8321B	Diuron-d6	57.0	P	30 - 160
EPA 8321B	Endothall-d6	97.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	68.0	P	30 - 160
EPA 8321B	Ibuprofen-d3	68.7	P	30 - 160
EPA 8321B	Primidone-d5	95.4	P	30 - 160
EPA 8321B	Sucralose-d6	65.5	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A123235

Included Lab Sample IDs: 2456913, 2456914, 2456915, 2456916, 2456917, 2456918, 2456919, 2456927

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.9	101	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A123238

Included Lab Sample IDs: 2456913, 2456914, 2456915, 2456916, 2456917, 2456918, 2456919, 2456927

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	98.5	98.5	P/P	95 - 105

Reference Method: EPA 8321B

Run ID: A123270

Included Lab Sample IDs: 2456963

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	136	132	P/P	60 - 160
Sucralose	83.8	87.9	P/P	60 - 160

Reference Method: SM 2320 B-2011

Run ID: A123283

Included Lab Sample IDs: 2456913, 2456914, 2456915, 2456916, 2456917, 2456918, 2456919, 2456927

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	95.1	98.2	P/P	90 - 110
Total Alkalinity	98.2	96.3	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A123283

Included Lab Sample IDs: 2456913, 2456914, 2456915, 2456916, 2456917, 2456918, 2456919, 2456927

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	102	105	P/P	90 - 110
Fluoride	104	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A123287

Included Lab Sample IDs: 2456920, 2456921, 2456923, 2456924, 2456925, 2456926, 2456928

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A123291

Included Lab Sample IDs: 2456922

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.0	98.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A123301
Included Lab Sample IDs: 2456963

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	127	120	P/P	60 - 160
Endothall	115	142	P/P	60 - 160
Glufosinate	126	126	P/P	60 - 160
Glyphosate	134	137	P/P	60 - 160

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A123304
Included Lab Sample IDs: 2456920, 2456921, 2456922, 2456923, 2456924, 2456925, 2456926, 2456928

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	101	102	P/P	90 - 110
NO2NO3-N	102	101	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A123310
Included Lab Sample IDs: 2456963

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	115	96.9	P/P	50 - 150
2,4,5-T	103	101	P/P	50 - 150
Acetaminophen	112	109	P/P	60 - 160
Acetamiprid	109	109	P/P	50 - 150
Afidopyropen	98.8	112	P/P	50 - 150
Bentazon	100	96.1	P/P	50 - 160
Benzovindiflupyr	106	108	P/P	50 - 150
Carbamazepine	115	108	P/P	60 - 150
Clothianidin	106	107	P/P	60 - 150
Dinotefuran	109	104	P/P	50 - 150
Diuron	116	110	P/P	60 - 160
Fenuron	108	106	P/P	60 - 150
Fluridone	111	116	P/P	60 - 160
Hydrocodone	114	112	P/P	60 - 150
Ibuprofen	103	103	P/P	50 - 160
Imazapyr	97.1	88.8	P/P	50 - 150
Imidacloprid	104	99.0	P/P	60 - 150
Linuron	119	101	P/P	60 - 150
Mandestrobin	114	114	P/P	50 - 150
MCPP	122	101	P/P	50 - 150
Naproxen	116	92.6	P/P	50 - 160
Primidone	95.6	94.3	P/P	60 - 150
Pyraclostrobin	110	109	P/P	60 - 150
Silvex	109	104	P/P	50 - 150
Thiamethoxam	116	113	P/P	50 - 150
Tolfenpyrad	101	101	P/P	60 - 150
Triclopyr	120	98.3	P/P	50 - 150

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A123325
Included Lab Sample IDs: 2456920, 2456921, 2456922, 2456923, 2456924, 2456925, 2456926, 2456928

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A123325

Included Lab Sample IDs: 2456920, 2456921, 2456922, 2456923, 2456924, 2456925, 2456926, 2456928

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	98.6	P/P	90 - 110
Ammonia-N	98.9	100	P/P	90 - 110
Ammonia-N	99.5	101	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A123338

Included Lab Sample IDs: 2456913, 2456914, 2456915, 2456916, 2456917, 2456918, 2456919, 2456927

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	102	102	P/P	90 - 110
Chloride	99.4	102	P/P	90 - 110
Sulfate	102	103	P/P	90 - 110
Sulfate	99.8	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A123343

Included Lab Sample IDs: 2456920, 2456921, 2456922, 2456923, 2456924, 2456925

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.4	99.0	P/P	90 - 110
Kjeldahl Nitrogen	99.0	101	P/P	90 - 110

Reference Method: SM 5310 B-2014

Run ID: A123379

Included Lab Sample IDs: 2456920, 2456921, 2456922, 2456923, 2456924, 2456925, 2456926, 2456928

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.4	101	P/P	85 - 115

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A123424

Included Lab Sample IDs: 2456926, 2456928

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	93.3	97.0	P/P	90 - 110
Kjeldahl Nitrogen	96.8	93.3	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)	98.8				0.679	
EPA 180.1 Rev. 2.0	Turbidity	103				2.12	
EPA 300.0 Rev. 2.1	Chloride	101	99.8	99.4		3.17	
	Sulfate	100	98.5			2.89	
EPA 350.1 Rev. 2.0	Ammonia-N	94.0					0.443
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	107	111	109			1.23
	Kjeldahl Nitrogen	98.2	101	100			0.185
EPA 353.2 Rev. 2.0	NO2NO3-N	101	98.3	97.3			0.844
	NO2NO3-N	101	99.2				0.875
EPA 365.1 Rev. 2.0	Total-P	103	107	105			1.37
EPA 8321B	2,4-D	109	93.2	94.3			0.986
	2,4,5-T	105	72.0	76.3			5.69
	Acesulfame K	133	123	126			2.29
	Acetaminophen	76.3	84.1	95.8			13.1
	Acetamiprid	82.4	63.5	69.2			8.64
	Afidopyropen	68.6	66.6	73.5			9.82
	AMPA	58.3	72.3	45.4			24.3
	Bentazon	56.0					3.83
	Benzovindiflupyr	78.4	75.8	82.6			8.56
	Carbamazepine	70.7	57.1	62.9			7.99
	Clothianidin	89.6	88.7	98.1			10.0
	Dinotefuran	92.9	77.8	81.7			4.53
	Diuron	66.7	54.6	58.6			6.14
	Endothall	45.4	65.0	50.4			25.2
	Fenuron	140	91.4	94.1			2.92
	Fluridone	82.1	55.0	78.2			6.02
	Glufosinate	59.2	74.6	64.9			13.9
	Glyphosate	47.4					17.3
	Hydrocodone	89.3	72.3	75.5			4.46
	Ibuprofen	68.4	59.9	62.3			3.91
	Imazapyr	90.1					1.95
	Imidacloprid	86.9	104	115			7.89
	Linuron	66.5	59.4	63.3			6.42
	Mandestrobin	84.5	77.4	85.4			9.82
	MCPP	96.3	84.5	88.6			4.68
	Naproxen	66.0	59.4	78.2			27.4
	Primidone	85.0	88.8	100			12.2
	Pyraclostrobin	71.9	72.3	80.0			10.1
	Silvex	84.7	83.0	87.7			5.61
	Sucralose	83.5	64.6	65.5			1.15
	Thiamethoxam	86.7	74.8	82.3			9.43
	Tolfenpyrad	43.5	46.6	54.5			15.7
	Triclopyr	121	76.2	79.6			4.33
SM 2320 B-2011	Total Alkalinity	99.3				0.584	
SM 2540 C-2015	TDS	96.4				0.766	
SM 2540 D-2015	TSS	95.2					
SM 4500-F- C-2011	Fluoride	104	103	102			0.993
SM 5310 B-2014	Organic Carbon	101	102	101			0.444

Reference Method Descriptions

Method	Description	Associated Samples
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Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2456913, 2456914, 2456915, 2456916, 2456917, 2456918, 2456919, 2456927
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2456913, 2456914, 2456915, 2456916, 2456917, 2456918, 2456919, 2456927
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2456913, 2456914, 2456915, 2456916, 2456917, 2456918, 2456919, 2456927
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2456913, 2456914, 2456915, 2456916, 2456917, 2456918, 2456919, 2456927
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2456920, 2456921, 2456922, 2456923, 2456924, 2456925, 2456926, 2456928
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2456920, 2456921, 2456922, 2456923, 2456924, 2456925, 2456926, 2456928
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2456920, 2456921, 2456922, 2456923, 2456924, 2456925, 2456926, 2456928
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2456920, 2456921, 2456922, 2456923, 2456924, 2456925, 2456926, 2456928
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2456963
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2456913, 2456914, 2456915, 2456916, 2456917, 2456918, 2456919, 2456927
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2456913, 2456914, 2456915, 2456916, 2456917, 2456918, 2456919, 2456927
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2456913, 2456914, 2456915, 2456916, 2456917, 2456918, 2456919, 2456927
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2456913, 2456914, 2456915, 2456916, 2456917, 2456918, 2456919, 2456927
SM 5310 B-2014	Nonpurgeable Organic Carbon in aqueous matrices	2456920, 2456921, 2456922, 2456923, 2456924, 2456925, 2456926, 2456928

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	12/14/2023			12/14/2023 14:22	Samantha L Bates	2456913
	12/14/2023			12/14/2023 14:23	Samantha L Bates	2456914, 2456915
	12/14/2023			12/14/2023 14:24	Samantha L Bates	2456916
	12/14/2023			12/14/2023 14:25	Samantha L Bates	2456917
	12/14/2023			12/14/2023 14:26	Samantha L Bates	2456918, 2456919
	12/14/2023			12/14/2023 14:27	Samantha L Bates	2456927
	12/14/2023			12/14/2023 14:20	Anna M. Plaviak	2456913
EPA 180.1 Rev. 2.0	12/14/2023			12/14/2023 14:24	Anna M. Plaviak	2456914
	12/14/2023			12/14/2023 14:26	Anna M. Plaviak	2456915
	12/14/2023			12/14/2023 14:28	Anna M. Plaviak	2456916
	12/14/2023			12/14/2023 14:29	Anna M. Plaviak	2456917
	12/14/2023			12/14/2023 14:30	Anna M. Plaviak	2456918, 2456919
	12/14/2023			12/14/2023 14:33	Anna M. Plaviak	2456927
	12/14/2023			12/21/2023 14:22	James L Waggeberby	2456913
EPA 300.0 Rev. 2.1	12/14/2023			12/21/2023 14:37	James L Waggeberby	2456914
	12/14/2023			12/21/2023 14:52	James L Waggeberby	2456915
	12/14/2023			12/21/2023 15:37	James L Waggeberby	2456916
	12/14/2023			12/21/2023 15:52	James L Waggeberby	2456917
	12/14/2023			12/21/2023 16:08	James L Waggeberby	2456918
	12/14/2023			12/21/2023 16:23	James L Waggeberby	2456919
	12/14/2023			12/21/2023 16:38	James L Waggeberby	2456927
EPA 350.1 Rev. 2.0	12/14/2023			12/19/2023 13:09	Khloe J Berg	2456920
	12/14/2023			12/19/2023 13:10	Khloe J Berg	2456921
	12/14/2023			12/19/2023 13:11	Khloe J Berg	2456922
	12/14/2023			12/19/2023 13:17	Khloe J Berg	2456926
	12/14/2023			12/19/2023 13:18	Khloe J Berg	2456928
	12/14/2023			12/19/2023 15:27	Khloe J Berg	2456923
	12/14/2023			12/19/2023 15:29	Khloe J Berg	2456924
EPA 351.2 Rev. 2.0	12/14/2023			12/19/2023 15:38	Khloe J Berg	2456925
	12/14/2023	12/15/2023 13:48	Simonne.V. Calhoun	12/19/2023 15:34	Samantha L Bates	2456920
	12/14/2023	12/15/2023 13:48	Simonne.V. Calhoun	12/19/2023 15:39	Samantha L Bates	2456921
	12/14/2023	12/15/2023 13:48	Simonne.V. Calhoun	12/19/2023 15:40	Samantha L Bates	2456922
	12/14/2023	12/15/2023 13:48	Simonne.V. Calhoun	12/19/2023 15:45	Samantha L Bates	2456923
	12/14/2023	12/15/2023 13:48	Simonne.V. Calhoun	12/19/2023 15:47	Samantha L Bates	2456924
	12/14/2023	12/15/2023 13:48	Simonne.V. Calhoun	12/19/2023 15:48	Samantha L Bates	2456925
EPA 353.2 Rev. 2.0	12/14/2023	12/18/2023 13:10	Simonne.V. Calhoun	12/27/2023 10:21	Samantha L Bates	2456926
	12/14/2023	12/18/2023 13:10	Simonne.V. Calhoun	12/27/2023 10:26	Samantha L Bates	2456928
	12/14/2023			12/18/2023 13:01	Fadila Guebre	2456920
	12/14/2023			12/18/2023 13:03	Fadila Guebre	2456921
	12/14/2023			12/18/2023 13:04	Fadila Guebre	2456922

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	12/14/2023			12/18/2023 13:20	Fadila Guebre	2456923
	12/14/2023			12/18/2023 13:26	Fadila Guebre	2456924
	12/14/2023			12/18/2023 13:27	Fadila Guebre	2456925
	12/14/2023			12/18/2023 13:29	Fadila Guebre	2456926
	12/14/2023			12/18/2023 13:30	Fadila Guebre	2456928
EPA 365.1 Rev. 2.0	12/14/2023	12/15/2023 12:55	Adam P Silver	12/18/2023 11:41	Chandler E Cox	2456924
	12/14/2023	12/15/2023 12:55	Adam P Silver	12/18/2023 11:43	Chandler E Cox	2456920
	12/14/2023	12/15/2023 12:55	Adam P Silver	12/18/2023 11:44	Chandler E Cox	2456921
	12/14/2023	12/15/2023 12:55	Adam P Silver	12/18/2023 11:46	Chandler E Cox	2456923
	12/14/2023	12/15/2023 12:55	Adam P Silver	12/18/2023 11:47	Chandler E Cox	2456925
	12/14/2023	12/15/2023 12:55	Adam P Silver	12/18/2023 11:50	Chandler E Cox	2456926
	12/14/2023	12/15/2023 12:55	Adam P Silver	12/18/2023 11:51	Chandler E Cox	2456928
EPA 8321B	12/14/2023	12/15/2023 12:55	Adam P Silver	12/18/2023 13:21	Elise M. Gillis	2456922
	12/14/2023	12/15/2023 12:00	Hana Lee	12/15/2023 14:04	Hana Lee	2456963
	12/14/2023	12/15/2023 12:00	Hana Lee	12/16/2023 13:22	Tae K Lee	2456963
SM 2320 B-2011	12/14/2023	12/18/2023 09:00	Hoor Shaik	12/18/2023 16:15	Juyoung Kim	2456963
	12/14/2023			12/16/2023 04:59	Chandler E Cox	2456913
	12/14/2023			12/16/2023 06:29	Chandler E Cox	2456914
	12/14/2023			12/16/2023 06:41	Chandler E Cox	2456915
	12/14/2023			12/16/2023 06:55	Chandler E Cox	2456916
	12/14/2023			12/16/2023 07:07	Chandler E Cox	2456917
	12/14/2023			12/16/2023 07:52	Chandler E Cox	2456918
	12/14/2023			12/16/2023 08:05	Chandler E Cox	2456919
SM 2540 C-2015	12/14/2023			12/16/2023 08:18	Chandler E Cox	2456927
	12/14/2023			12/19/2023 15:26	Yijie Li	2456913, 2456914, 2456915, 2456916, 2456917, 2456918, 2456919, 2456927
SM 2540 D-2015	12/14/2023			12/19/2023 15:26	Yijie Li	2456913, 2456914, 2456915, 2456916, 2456917, 2456918, 2456919, 2456927
SM 4500-F- C-2011	12/14/2023			12/16/2023 04:48	Chandler E Cox	2456913
	12/14/2023			12/16/2023 06:29	Chandler E Cox	2456914
	12/14/2023			12/16/2023 06:41	Chandler E Cox	2456915
	12/14/2023			12/16/2023 06:55	Chandler E Cox	2456916
	12/14/2023			12/16/2023 07:07	Chandler E Cox	2456917
	12/14/2023			12/16/2023 07:52	Chandler E Cox	2456918
	12/14/2023			12/16/2023 08:05	Chandler E Cox	2456919
	12/14/2023			12/16/2023 08:18	Chandler E Cox	2456927
SM 5310 B-2014	12/14/2023			12/20/2023 09:09	Kenneth H Lee	2456928
	12/14/2023			12/20/2023 10:25	Kenneth H Lee	2456920
	12/14/2023			12/20/2023 10:39	Kenneth H Lee	2456921
	12/14/2023			12/20/2023 10:53	Kenneth H Lee	2456922

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 5310 B-2014	12/14/2023			12/20/2023 11:09	Kenneth H Lee	2456923
	12/14/2023			12/20/2023 11:23	Kenneth H Lee	2456924
	12/14/2023			12/20/2023 11:37	Kenneth H Lee	2456925
	12/14/2023			12/20/2023 11:51	Kenneth H Lee	2456926