

Chemical Analysis Report

NW-DIST-2023-03-29-01

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

Event Description: **Hogtown Car Run**
Request ID: **RQ-2023-03-27-11**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
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Certified by: Thekkekalathil Chandrasekhar, Environmental Consultant

Date Certified: 19-APR-2023 09:44



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: HOGTOWN DRAIN ABOVE CHAT HOLLY RD

Collection Date/Time: 03/28/2023 10:34

Field ID: G3NW0241

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2396677	DEP SOP: NU-094-1	Color (true)	51		PCU	P427817	
	EPA 180.1 Rev. 2.0	Turbidity	4.8	A	NTU	P427832	
	EPA 300.0 Rev. 2.1	Chloride	12		mg Cl/L	P427939	
		Sulfate	5.3		mg SO4/L	P427941	
	SM 2320 B-2011	Total Alkalinity	25		mg CaCO3/L	P428106	
	SM 2540 C-2015	TDS	76		mg/L	P428277	
	SM 2540 D-2015	TSS	4	I	mg/L	P428273	
	SM 4500-F- C-2011	Fluoride	0.039	I	mg F/L	P428108	MS, RPD
2396680	EPA 350.1 Rev. 2.0	Ammonia-N	0.015		mg N/L	P427878	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.29		mg N/L	P427933	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.026		mg N/L	P427995	
	EPA 365.1 Rev. 2.0	Total-P	0.009		mg P/L	P428044	
	SM 5310 B-2011	Organic Carbon	7.3		mg C/L	P427937	

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: HOGTOWN DRAINAGE AT CHURCHILL BAYOU ROAD **Collection Date/Time: 03/28/2023 10:49**

Field ID: G3NW0038

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2396678	DEP SOP: NU-094-1	Color (true)	13		PCU	P427817	
	EPA 180.1 Rev. 2.0	Turbidity	3.9		NTU	P427832	
	EPA 300.0 Rev. 2.1	Chloride	7.9E+03		mg Cl/L	P427939	
		Sulfate	1.1E+03		mg SO4/L	P427941	
	SM 2320 B-2011	Total Alkalinity	86		mg CaCO3/L	P427944	
	SM 2540 C-2015	TDS	1.48E+04		mg/L	P428277	
	SM 2540 D-2015	TSS	3	UA	mg/L	P428274	
	SM 4500-F- C-2011	Fluoride	0.51		mg F/L	P427954	
2396681	EPA 350.1 Rev. 2.0	Ammonia-N	0.056		mg N/L	P428062	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.48		mg N/L	P427929	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.018		mg N/L	P427918	
	EPA 365.1 Rev. 2.0	Total-P	0.022		mg P/L	P427854	
	SM 5310 B-2011	Organic Carbon	5.5		mg C/L	P428061	

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: DIRECT RUNOFF TO BAY OFF OF ROBERTS RD

Collection Date/Time: 03/28/2023 11:27

Field ID: G3NW0239

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2396675	DEP SOP: NU-094-1	Color (true)	44		PCU	P427817	
	EPA 180.1 Rev. 2.0	Turbidity	1.2		NTU	P427832	
	EPA 300.0 Rev. 2.1	Chloride	12		mg Cl/L	P427939	
		Sulfate	0.71		mg SO4/L	P427941	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P428106	
	SM 2540 C-2015	TDS	33		mg/L	P428277	
	SM 2540 D-2015	TSS	2	I	mg/L	P428273	
	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P428108	MS, RPD
2396676	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P427878	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.33		mg N/L	P428381	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P427995	
	EPA 365.1 Rev. 2.0	Total-P	0.008		mg P/L	P428044	
	SM 5310 B-2011	Organic Carbon	8.3		mg C/L	P427937	

Ref. Method and Comment:

SM 2540 C-2015: The reported result is consistent with the conductivity measured in the laboratory, 60.8 umhos/cm.

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

Sample Location: DRAIN TO HEWETT BAYOU

Collection Date/Time: 03/28/2023 11:47

Field ID: G3NW0238

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2396679	DEP SOP: NU-094-1	Color (true)	94		PCU	P427817	
	EPA 180.1 Rev. 2.0	Turbidity	2.1		NTU	P427832	
	EPA 300.0 Rev. 2.1	Chloride	20		mg Cl/L	P427939	
		Sulfate	2.4		mg SO4/L	P427941	
	SM 2320 B-2011	Total Alkalinity	22		mg CaCO3/L	P428106	
	SM 2540 C-2015	TDS	76		mg/L	P428277	
	SM 2540 D-2015	TSS	4	I	mg/L	P428273	
	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P428108	MS, RPD
2396682	EPA 350.1 Rev. 2.0	Ammonia-N	0.005	I	mg N/L	P427878	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.39		mg N/L	P427933	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	I	mg N/L	P427995	
	EPA 365.1 Rev. 2.0	Total-P	0.011		mg P/L	P428044	
	SM 5310 B-2011	Organic Carbon	12		mg C/L	P427937	

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: DRAIN TO MUSSETT BAYOU UPSTREAM OF
DON BISHOP RD**

Collection Date/Time: 03/28/2023 11:09

Field ID: G3NW0240

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2396673	DEP SOP: NU-094-1	Color (true)	57	A	PCU	P427817	
	EPA 180.1 Rev. 2.0	Turbidity	3.2		NTU	P427832	
	EPA 300.0 Rev. 2.1	Chloride	24		mg Cl/L	P427939	
		Sulfate	3.4		mg SO4/L	P427941	
	SM 2320 B-2011	Total Alkalinity	23		mg CaCO3/L	P428105	
	SM 2540 C-2015	TDS	79	A	mg/L	P428277	
	SM 2540 D-2015	TSS	2	IA	mg/L	P428273	
2396674	SM 4500-F- C-2011	Fluoride	0.028	I	mg F/L	P428107	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.014		mg N/L	P427878	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.24		mg N/L	P428040	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.017		mg N/L	P427994	
	EPA 365.1 Rev. 2.0	Total-P	0.009		mg P/L	P428044	
2396697	SM 5310 B-2011	Organic Carbon	8.4		mg C/L	P427937	
	EPA 8321B	2,4-D	0.0020	U	ug/L	P427927	
		Acesulfame K	0.10	U	ug/L	P427744	
		2,4,5-T	0.0040	U	ug/L	P427927	
		AMPA	0.10	U	ug/L	P427744	
		Acetaminophen	0.0080	U	ug/L	P427927	
		Acetamiprid	0.0020	U	ug/L	P427927	
		Endothall	0.25	U	ug/L	P427744	
		Glufosinate	0.10	U	ug/L	P427744	
		Glyphosate	0.10	U	ug/L	P427744	
		Afidopyropen	0.0020	U	ug/L	P427927	
		Bentazon	8.0E-04	U	ug/L	P427927	
		Sucralose	0.45		ug/L	P427744	
		Benzovindiflupyr	0.0020	U	ug/L	P427927	
		Carbamazepine	8.0E-04	U	ug/L	P427927	
		Clothianidin	0.0020	U	ug/L	P427927	
		Dinotefuran	0.0020	U	ug/L	P427927	
		Diuron	0.0020	U	ug/L	P427927	
		Fenuron	0.032	U	ug/L	P427927	
		Fluridone	8.0E-04	U	ug/L	P427927	
		Imazapyr	0.0082	I	ug/L	P427927	
		Hydrocodone	0.0020	U	ug/L	P427927	
		Ibuprofen	0.080	U	ug/L	P427927	
		Imidacloprid	0.0055	I	ug/L	P427927	
		Linuron	0.0040	U	ug/L	P427927	
		Mandestrobin	0.0020	U	ug/L	P427927	
		MCP	0.0020	U	ug/L	P427927	
		Naproxen	0.0080	U	ug/L	P427927	
		Primidone	0.0040	U	ug/L	P427927	
		Pyraclostrobin	0.0020	U	ug/L	P427927	
		Silvex	0.0040	U	ug/L	P427927	

Field ID: G3NW0240

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2396697	EPA 8321B	Thiamethoxam	0.0020	U	ug/L	P427927	
		Tolfenpyrad	0.0020	U	ug/L	P427927	
		Triclopyr	0.0040	U	ug/L	P427927	

Ref. Method and Comment:
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
SM 4500-F- C-2011: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Quality Assurance Report

Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P427817

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P427832

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427939

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427941

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P427878

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P428062

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P427929

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P427933

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P428040

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P428381

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P427918

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P427994

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P427995

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P427854

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P428044

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

Reference Method: EPA 8321B
Batch ID: P427744

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: P427927

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P427927

Component	Result	Code	Units
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.032	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.080	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Silvex	0.0040	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2320 B-2011

Batch ID: P427944

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

Reference Method: SM 2320 B-2011

Batch ID: P428105

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

Reference Method: SM 2320 B-2011

Batch ID: P428106

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

Reference Method: SM 2540 C-2015

Batch ID: P428277

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015

Batch ID: P428273

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 D-2015
Batch ID: P428274

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P427954

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 4500-F- C-2011
Batch ID: P428107

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 4500-F- C-2011
Batch ID: P428108

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P427937

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

Reference Method: SM 5310 B-2011
Batch ID: P428061

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: P427817

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	97.0		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P427832

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427939

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427941

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	97.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P427878

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P428062

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	95.0		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P427929

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P427933

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	98.8		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P428040

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P428381

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P427918

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P427994

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P427995

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P427854

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P428044

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

Reference Method: EPA 8321B
Batch ID: P427744

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	93.9		P	40 - 150
AMPA	113		P	40 - 150
Endothall	91.3		P	40 - 150
Glufosinate	110		P	40 - 150
Glyphosate	125		P	40 - 150
Sucralose	102		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P427927

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	102		P	40 - 150
2,4,5-T	91.7		P	40 - 150
Acetaminophen	84.5		P	30 - 150
Acetamiprid	76.6		P	40 - 150
Afidopyropen	67.0		P	30 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P427927

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Bentazon	98.8		P	30 - 150
Benzovindiflupyr	86.7		P	40 - 150
Carbamazepine	81.1		P	40 - 150
Clothianidin	89.7		P	40 - 150
Dinotefuran	94.3		P	40 - 150
Diuron	73.5		P	40 - 150
Fenuron	87.5		P	40 - 150
Fluridone	81.9		P	40 - 150
Hydrocodone	95.2		P	40 - 150
Ibuprofen	66.4		P	40 - 150
Imazapyr	96.3		P	40 - 150
Imidacloprid	83.8		P	40 - 150
Linuron	75.2		P	40 - 150
Mandestrobin	92.3		P	40 - 150
MCPP	101		P	40 - 150
Naproxen	65.0		P	40 - 150
Primidone	82.9		P	40 - 150
Pyraclostrobin	86.1		P	40 - 150
Silvex	103		P	40 - 150
Thiamethoxam	91.7		P	40 - 150
Tolfenpyrad	61.5		P	30 - 150
Triclopyr	97.0		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P427944

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	94.5		P	94 - 106

Reference Method: SM 2320 B-2011
Batch ID: P428105

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	95.6		P	94 - 106

Reference Method: SM 2320 B-2011
Batch ID: P428106

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	94.9		P	94 - 106

Reference Method: SM 2540 C-2015
Batch ID: P428277

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	92.8		P	90 - 110

Reference Method: SM 2540 D-2015
Batch ID: P428273

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	94.3		P	85 - 106

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2540 D-2015
Batch ID: P428274

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	104		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P427954

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	101		P	96 - 104

Reference Method: SM 4500-F- C-2011
Batch ID: P428107

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	103		P	96 - 104

Reference Method: SM 4500-F- C-2011
Batch ID: P428108

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

Reference Method: SM 5310 B-2011
Batch ID: P427937

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.8		P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P428061

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.1		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427939

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2396625	Chloride	99.6		P	90 - 110
2396677	Chloride	99.0		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427941

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2396625	Sulfate	94.2		P	90 - 110
2396677	Sulfate	95.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P427878

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2396629	Ammonia-N	99.8	102	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P428062

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2397534	Ammonia-N	104	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P427929

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2396713	Kjeldahl Nitrogen	93.7	91.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P427933

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2396766	Kjeldahl Nitrogen	94.1	93.9	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P428040

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2396674	Kjeldahl Nitrogen	93.5	109	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P428381

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2396676	Kjeldahl Nitrogen	97.2	95.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P427918

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2395982	NO2NO3-N	107	106	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P427994

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2396623	NO2NO3-N	106	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P427995

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2396676	NO2NO3-N	104	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P427854

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2396533	Total-P	97.3	96.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P428044

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2396766	Total-P	98.9	95.8	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P427744

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2396497	Acesulfame K	89.6	88.5	P/P	40 - 150
2396497	AMPA	101	98.8	P/P	40 - 150
2396497	Endothall	101	99.0	P/P	40 - 150
2396497	Glufosinate	94.3	88.5	P/P	40 - 150
2396497	Glyphosate	104	97.1	P/P	40 - 150
2396497	Sucralose	103	104	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P427927

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2396497	2,4-D	115	122	P/P	40 - 150
2396497	2,4,5-T	110	106	P/P	40 - 150
2396497	Acetaminophen	82.1	77.0	P/P	30 - 150
2396497	Acetamiprid	77.5	82.7	P/P	40 - 150
2396497	Afidopyropen	54.6	70.6	P/P	30 - 150
2396497	Bentazon	104	104	P/P	30 - 150
2396497	Benzovindiflupyr	82.6	85.4	P/P	40 - 150
2396497	Carbamazepine	87.3	87.1	P/P	40 - 150
2396497	Clothianidin	87.9	87.3	P/P	40 - 150
2396497	Dinotefuran	99.8	101	P/P	40 - 150
2396497	Diuron	63.6	63.0	P/P	40 - 150
2396497	Fenuron	85.7	80.5	P/P	40 - 150
2396497	Fluridone	83.5	80.3	P/P	40 - 150
2396497	Hydrocodone	108	113	P/P	40 - 150
2396497	Ibuprofen	74.0	62.9	P/P	40 - 150
2396497	Imazapyr	111	115	P/P	40 - 150
2396497	Imidacloprid	100	91.4	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P427927

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2396497	Linuron	48.5	46.6	P/P	40 - 150
2396497	Mandestrobin	93.5	93.1	P/P	40 - 150
2396497	MCPP	111	109	P/P	40 - 150
2396497	Naproxen	77.2	102	P/P	40 - 150
2396497	Primidone	92.2	88.9	P/P	40 - 150
2396497	Pyraclostrobin	83.6	81.5	P/P	40 - 150
2396497	Silvex	113	112	P/P	40 - 150
2396497	Thiamethoxam	79.0	77.3	P/P	40 - 150
2396497	Tolfenpyrad	54.6	54.0	P/P	30 - 150
2396497	Triclopyr	102	105	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P427954

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2396528	Fluoride	102	102	P/P	94 - 104

Reference Method: SM 4500-F- C-2011
Batch ID: P428108

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2397425	Fluoride	105	103	F/P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P427937

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2396532	Organic Carbon	89.5	89.9	P/P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P428061

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2396533	Organic Carbon	89.6	89.8	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P427817

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2396673	Color (true)	1.05	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P427832

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2396677	Turbidity	1.47	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427939

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2396625	Chloride	0.937	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427941

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2396625	Sulfate	0.385	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P427878

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2396629	Ammonia-N	2.57	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P428062

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2397534	Ammonia-N	1.48	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P427929

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2396713	Kjeldahl Nitrogen	2.37	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P427933

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2396766	Kjeldahl Nitrogen	0.191	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P428040

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2396674	Kjeldahl Nitrogen	13.8	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P428381

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2396676	Kjeldahl Nitrogen	1.37	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P427918

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2395982	NO2NO3-N	0.913	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P427994

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2396623	NO2NO3-N	1.43	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P427995

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2396676	NO2NO3-N	0.484	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P427854

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2396533	Total-P	0.438	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P428044

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2396766	Total-P	2.44	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P427744

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2396497	Acesulfame K	1.25	Spike	P	0 - 30
2396497	AMPA	2.25	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P427744

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2396497	Endothall	2.34	Spike	P	0 - 30
2396497	Glufosinate	6.33	Spike	P	0 - 30
2396497	Glyphosate	6.59	Spike	P	0 - 30
2396497	Sucralose	1.38	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P427927

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2396497	2,4-D	5.63	Spike	P	0 - 30
2396497	2,4,5-T	3.82	Spike	P	0 - 30
2396497	Acetaminophen	4.95	Spike	P	0 - 30
2396497	Acetamiprid	6.42	Spike	P	0 - 30
2396497	Afidopyropen	25.6	Spike	P	0 - 30
2396497	Bentazon	0.288	Spike	P	0 - 30
2396497	Benzovindiflupyr	3.32	Spike	P	0 - 30
2396497	Carbamazepine	0.215	Spike	P	0 - 30
2396497	Clothianidin	0.712	Spike	P	0 - 30
2396497	Dinotefuran	0.760	Spike	P	0 - 30
2396497	Diuron	0.994	Spike	P	0 - 30
2396497	Fenuron	6.25	Spike	P	0 - 30
2396497	Fluridone	3.86	Spike	P	0 - 30
2396497	Hydrocodone	4.50	Spike	P	0 - 30
2396497	Ibuprofen	16.3	Spike	P	0 - 30
2396497	Imazapyr	3.08	Spike	P	0 - 30
2396497	Imidacloprid	8.99	Spike	P	0 - 30
2396497	Linuron	3.89	Spike	P	0 - 30
2396497	Mandestrobin	0.486	Spike	P	0 - 30
2396497	MCPP	1.48	Spike	P	0 - 30
2396497	Naproxen	27.3	Spike	P	0 - 30
2396497	Primidone	3.73	Spike	P	0 - 30
2396497	Pyraclostrobin	2.57	Spike	P	0 - 30
2396497	Silvex	0.624	Spike	P	0 - 30
2396497	Thiamethoxam	2.19	Spike	P	0 - 30
2396497	Tolfenpyrad	1.08	Spike	P	0 - 30
2396497	Triclopyr	2.57	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P427944

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2396528	Total Alkalinity	0.281	Sample	P	0 - 3.8

Reference Method: SM 2320 B-2011
Batch ID: P428105

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2397553	Total Alkalinity	1.01	Sample	P	0 - 3.8

Quality Assurance Report Precision

Reference Method: SM 2320 B-2011
Batch ID: P428106

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2397425	Total Alkalinity	1.26	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2015
Batch ID: P428277

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2396673	TDS	5.06	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P427954

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2396528	Fluoride	0.0	Spike	P	0 - 1.6

Reference Method: SM 4500-F- C-2011
Batch ID: P428107

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2397553	Fluoride	0.483	Spike	P	0 - 1.6

Reference Method: SM 4500-F- C-2011
Batch ID: P428108

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2397425	Fluoride	2.03	Spike	F	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P427937

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2396532	Organic Carbon	0.332	Spike	P	0 - 20

Reference Method: SM 5310 B-2011
Batch ID: P428061

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2396533	Organic Carbon	0.205	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2396697

Field Sample ID: G3NW0240

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	113	P	30 - 160
EPA 8321B	Acetaminophen-d4	123	P	30 - 160
EPA 8321B	Carbamazepine-d10	63.6	P	30 - 160
EPA 8321B	Diuron-d6	49.4	P	30 - 160
EPA 8321B	Endothall-d6	104	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	96.5	P	30 - 160
EPA 8321B	Ibuprofen-d3	73.6	P	30 - 160
EPA 8321B	Primidone-d5	97.7	P	30 - 160
EPA 8321B	Sucralose-d6	105	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A118247

Included Lab Sample IDs: 2396673, 2396675, 2396677, 2396678, 2396679

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	96.3	97.4	P/P	90 - 110
Chloride	97.4	96.1	P/P	90 - 110
Sulfate	95.8	96.5	P/P	90 - 110
Sulfate	96.5	95.8	P/P	90 - 110

Reference Method: DEP SOP: NU-094-1

Run ID: A118263

Included Lab Sample IDs: 2396673, 2396675, 2396677, 2396678, 2396679

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.7	101	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A118275

Included Lab Sample IDs: 2396673, 2396675, 2396677, 2396678, 2396679

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A118293

Included Lab Sample IDs: 2396674, 2396676, 2396680, 2396682

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.6	98.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A118313

Included Lab Sample IDs: 2396681

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

Reference Method: SM 5310 B-2011

Run ID: A118328

Included Lab Sample IDs: 2396674, 2396676, 2396680, 2396682

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

Reference Method: SM 2320 B-2011

Run ID: A118331

Included Lab Sample IDs: 2396678

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	95.3	94.3	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 4500-F- C-2011

Run ID: A118331

Included Lab Sample IDs: 2396678

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A118346

Included Lab Sample IDs: 2396681

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

Reference Method: EPA 8321B

Run ID: A118355

Included Lab Sample IDs: 2396697

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	93.7	93.8	P/P	60 - 160
Sucralose	96.0	106	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A118357

Included Lab Sample IDs: 2396697

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	121	118	P/P	60 - 160
Endothall	95.3	99.9	P/P	60 - 160
Glufosinate	97.2	100	P/P	60 - 160
Glyphosate	107	119	P/P	60 - 160

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A118361

Included Lab Sample IDs: 2396674, 2396676, 2396680, 2396682

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 351.2 Rev. 2.0

Run ID: A118374

Included Lab Sample IDs: 2396680, 2396681, 2396682

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	92.7	97.7	P/P	90 - 110
Kjeldahl Nitrogen	98.0	99.6	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A118386

Included Lab Sample IDs: 2396681

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	94.0	98.0	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A118387

Included Lab Sample IDs: 2396681

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.4	99.5	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A118404

Included Lab Sample IDs: 2396673, 2396675, 2396677, 2396679

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	92.1	97.3	P/P	90 - 110
Total Alkalinity	97.3	94.3	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A118404

Included Lab Sample IDs: 2396673, 2396675, 2396677, 2396679

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A118417

Included Lab Sample IDs: 2396674, 2396676, 2396680, 2396682

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.2	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A118440

Included Lab Sample IDs: 2396674

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.5	99.3	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A118491

Included Lab Sample IDs: 2396697

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	89.3	84.6	P/P	50 - 150
2,4,5-T	83.0	85.4	P/P	50 - 150
Acetaminophen	116	94.5	P/P	60 - 160
Acetamiprid	101	103	P/P	50 - 150
Afidopyropen	86.6	73.7	P/P	50 - 150
Bentazon	123	124	P/P	50 - 160
Benzovindiflupyr	89.3	84.3	P/P	50 - 150
Carbamazepine	95.4	102	P/P	60 - 150
Clothianidin	102	101	P/P	60 - 150
Dinotefuran	108	112	P/P	50 - 150
Diuron	106	107	P/P	60 - 160
Fenuron	97.7	105	P/P	60 - 150
Fluridone	95.8	97.4	P/P	60 - 160
Hydrocodone	142	148	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A118491
Included Lab Sample IDs: 2396697

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ibuprofen	111	118	P/P	50 - 160
Imazapyr	113	118	P/P	50 - 150
Imidacloprid	93.2	91.5	P/P	60 - 150
Linuron	101	94.6	P/P	60 - 150
Mandestrobin	95.2	99.0	P/P	50 - 150
MCPP	89.0	94.5	P/P	50 - 150
Naproxen	119	91.3	P/P	50 - 160
Primidone	110	109	P/P	60 - 150
Pyraclostrobin	86.5	89.2	P/P	60 - 150
Silvex	84.6	76.4	P/P	50 - 150
Thiamethoxam	122	123	P/P	50 - 150
Tolfenpyrad	84.5	82.8	P/P	60 - 150
Triclopyr	89.9	86.8	P/P	50 - 150

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A118562
Included Lab Sample IDs: 2396676

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.3	94.4	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)	97.0				1.05	
EPA 180.1 Rev. 2.0	Turbidity	99.4				1.47	
EPA 300.0 Rev. 2.1	Chloride	100	99.6	99.0		0.937	
	Sulfate	97.7	94.2	95.7		0.385	
EPA 350.1 Rev. 2.0	Ammonia-N	97.8	99.8	102			2.57
	Ammonia-N	95.0	104	102			1.48
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	95.0	93.7	91.4			2.37
	Kjeldahl Nitrogen	98.8	94.1	93.9			0.191
	Kjeldahl Nitrogen	99.4	93.5	109			13.8
	Kjeldahl Nitrogen	100	97.2	95.6			1.37
EPA 353.2 Rev. 2.0	NO2NO3-N	106	107	106			0.913
	NO2NO3-N	104	106	104			1.43
	NO2NO3-N	104	104	103			0.484
EPA 365.1 Rev. 2.0	Total-P	98.2	97.3	96.9			0.438
	Total-P	97.2	98.9	95.8			2.44
EPA 8321B	2,4-D	102	115	122			5.63
	2,4,5-T	91.7	110	106			3.82
	Acesulfame K	93.9	89.6	88.5			1.25
	Acetaminophen	84.5	82.1	77.0			4.95
	Acetamiprid	76.6	77.5	82.7			6.42
	Afidopyropen	67.0	54.6	70.6			25.6
	AMPA	113	101	98.8			2.25
	Bentazon	98.8	104	104			0.288
	Benzovindiflupyr	86.7	82.6	85.4			3.32
	Carbamazepine	81.1	87.3	87.1			0.215
	Clothianidin	89.7	87.9	87.3			0.712
	Dinotefuran	94.3	99.8	101			0.760
	Diuron	73.5	63.6	63.0			0.994
	Endothall	91.3	101	99.0			2.34
	Fenuron	87.5	85.7	80.5			6.25
	Fluridone	81.9	83.5	80.3			3.86
	Glufosinate	110	94.3	88.5			6.33
	Glyphosate	125	104	97.1			6.59
	Hydrocodone	95.2	108	113			4.50
	Ibuprofen	66.4	74.0	62.9			16.3
	Imazapyr	96.3	111	115			3.08
	Imidacloprid	83.8	100	91.4			8.99
	Linuron	75.2	48.5	46.6			3.89
	Mandestrobin	92.3	93.5	93.1			0.486
	MCPP	101	111	109			1.48
	Naproxen	65.0	77.2	102			27.3
	Primidone	82.9	92.2	88.9			3.73
	Pyraclostrobin	86.1	83.6	81.5			2.57
	Silvex	103	113	112			0.624
	Sucralose	102	103	104			1.38
	Thiamethoxam	91.7	79.0	77.3			2.19
	Tolfenpyrad	61.5	54.6	54.0			1.08
	Triclopyr	97.0	102	105			2.57
SM 2320 B-2011	Total Alkalinity	94.5				0.281	
	Total Alkalinity	95.6				1.01	
	Total Alkalinity	94.9				1.26	
SM 2540 C-2015	TDS	92.8				5.06	
SM 2540 D-2015	TSS	94.3					
	TSS	104					

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision LCS	SMP	MS
SM 4500-F- C-2011	Fluoride	101	102	102			0.0
	Fluoride	103					0.483
	Fluoride	104	105	103			2.03
SM 5310 B-2011	Organic Carbon	99.8	89.5	89.9			0.332
	Organic Carbon	96.1	89.6	89.8			0.205

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2396673, 2396675, 2396677, 2396678, 2396679
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2396673, 2396675, 2396677, 2396678, 2396679
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2396673, 2396675, 2396677, 2396678, 2396679
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2396673, 2396675, 2396677, 2396678, 2396679
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2396674, 2396676, 2396680, 2396681, 2396682
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2396674, 2396676, 2396680, 2396681, 2396682
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2396674, 2396676, 2396680, 2396681, 2396682
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2396674, 2396676, 2396680, 2396681, 2396682
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2396697
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2396673, 2396675, 2396677, 2396678, 2396679
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2396673, 2396675, 2396677, 2396678, 2396679
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2396673, 2396675, 2396677, 2396678, 2396679
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2396673, 2396675, 2396677, 2396678, 2396679
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2396674, 2396676, 2396680, 2396681, 2396682

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	03/29/2023			03/29/2023 13:30	Alexis Price	2396673
	03/29/2023			03/29/2023 13:31	Alexis Price	2396675, 2396677
	03/29/2023			03/29/2023 13:32	Alexis Price	2396678, 2396679
EPA 180.1 Rev. 2.0	03/29/2023			03/29/2023 13:13	Khloe J Berg	2396673
	03/29/2023			03/29/2023 13:15	Khloe J Berg	2396675
	03/29/2023			03/29/2023 13:17	Khloe J Berg	2396677
	03/29/2023			03/29/2023 13:19	Khloe J Berg	2396678
	03/29/2023			03/29/2023 13:20	Khloe J Berg	2396679
	03/29/2023			03/31/2023 17:21	James L Waggeberby	2396677
EPA 300.0 Rev. 2.1	03/29/2023			03/31/2023 19:07	James L Waggeberby	2396673
	03/29/2023			03/31/2023 19:22	James L Waggeberby	2396675
	03/29/2023			03/31/2023 19:37	James L Waggeberby	2396678
	03/29/2023			03/31/2023 20:22	James L Waggeberby	2396679
EPA 350.1 Rev. 2.0	03/29/2023			03/30/2023 13:13	Khloe J Berg	2396674
	03/29/2023			03/30/2023 13:14	Khloe J Berg	2396676
	03/29/2023			03/30/2023 13:15	Khloe J Berg	2396680
	03/29/2023			03/30/2023 13:17	Khloe J Berg	2396682
	03/29/2023			04/05/2023 11:25	Ping Hua	2396681
EPA 351.2 Rev. 2.0	03/29/2023	03/31/2023 12:30	Samantha L Bates	04/04/2023 14:29	Samantha L Bates	2396681
	03/29/2023	03/31/2023 12:30	Samantha L Bates	04/04/2023 15:00	Samantha L Bates	2396680
	03/29/2023	03/31/2023 12:30	Samantha L Bates	04/04/2023 15:01	Samantha L Bates	2396682
	03/29/2023	04/05/2023 11:13	Dana G. Hughes	04/06/2023 13:54	Samantha L Bates	2396674
	03/29/2023	04/12/2023 13:25	Dana G. Hughes	04/13/2023 16:29	Samantha L Bates	2396676
EPA 353.2 Rev. 2.0	03/29/2023			03/31/2023 10:20	Beverly Y. Sanders	2396681
	03/29/2023			04/04/2023 10:27	Beverly Y. Sanders	2396674
	03/29/2023			04/04/2023 10:34	Beverly Y. Sanders	2396676
	03/29/2023			04/04/2023 10:45	Beverly Y. Sanders	2396680
	03/29/2023			04/04/2023 10:47	Beverly Y. Sanders	2396682
EPA 365.1 Rev. 2.0	03/29/2023	03/30/2023 14:30	Alexis Price	04/03/2023 13:31	James L Waggeberby	2396681
	03/29/2023	04/05/2023 14:22	Adam P Silver	04/06/2023 12:53	Simonne.V. Calhoun	2396674
	03/29/2023	04/05/2023 14:22	Adam P Silver	04/06/2023 12:54	Simonne.V. Calhoun	2396676
	03/29/2023	04/05/2023 14:22	Adam P Silver	04/06/2023 12:55	Simonne.V. Calhoun	2396680, 2396682
EPA 8321B	03/29/2023	03/31/2023 13:00	Manjita Shrestha	03/31/2023 18:30	Manjita Shrestha	2396697
	03/29/2023	03/31/2023 13:00	Manjita Shrestha	04/01/2023 03:41	Manjita Shrestha	2396697
	03/29/2023	04/03/2023 09:00	Hoor Shaik	04/07/2023 21:56	Juyoung Kim	2396697
SM 2320 B-2011	03/29/2023			04/01/2023 02:50	Dale L. Simmons	2396678
	03/29/2023			04/05/2023 22:39	Dale L. Simmons	2396673
	03/29/2023			04/06/2023 00:25	Dale L. Simmons	2396675
	03/29/2023			04/06/2023 00:38	Dale L. Simmons	2396677
	03/29/2023			04/06/2023 01:25	Dale L. Simmons	2396679

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2540 C-2015	03/29/2023			03/31/2023 14:30	Dana G. Hughes	2396673, 2396675, 2396677, 2396678, 2396679
SM 2540 D-2015	03/29/2023			03/31/2023 14:30	Blanca Fach	2396673, 2396675, 2396677, 2396678, 2396679
SM 4500-F- C-2011	03/29/2023			04/01/2023 00:17	Dale L. Simmons	2396678
	03/29/2023			04/05/2023 22:39	Dale L. Simmons	2396673
	03/29/2023			04/06/2023 00:25	Dale L. Simmons	2396675
	03/29/2023			04/06/2023 00:38	Dale L. Simmons	2396677
	03/29/2023			04/06/2023 01:25	Dale L. Simmons	2396679
SM 5310 B-2011	03/29/2023			04/01/2023 08:24	Khloe J Berg	2396674
	03/29/2023			04/01/2023 09:04	Khloe J Berg	2396676
	03/29/2023			04/01/2023 09:18	Khloe J Berg	2396680
	03/29/2023			04/01/2023 09:32	Khloe J Berg	2396682
	03/29/2023			04/04/2023 22:46	Elise M. Gillis	2396681