Chemical Analysis Report

SW-DIST-2022-05-17-02

Florida Department of Environmental Protection
Central Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

Event Description: **Run 7: Gilly Gamble Buffalo Manatee**
Request ID: **RQ-2022-05-16-05**
Customer: **SW-DIST**
Project ID: **SMP**

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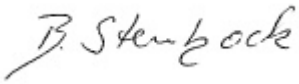
Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator Date Certified: 09-JUN-2022 14:50



Case Narrative

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

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

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

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

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

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

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

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

Precision is reported as relative percent difference unless otherwise noted.

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

QC Codes used in this report may include:

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

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

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

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

Sample Location: Manatee River near River Isles Clubhouse **Collection Date/Time: 05/16/2022 11:10**

Field ID: G2SW0119 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2327278	EPA 8321B	Acesulfame K	0.10	U	ug/L	P414088	
		2,4-D	0.035		ug/L	P413908	
		AMPA	10	U	ug/L	P414088	
		2,4,5-T	0.0040	U	ug/L	P413908	
		Acetaminophen	0.0080	U	ug/L	P413908	
		Endothall	0.25	U	ug/L	P414088	
		Acetamiprid	0.0020	U	ug/L	P413908	
		Glufosinate	10	U	ug/L	P414088	
		Glyphosate	10	U	ug/L	P414088	
		Afidopyropen	0.0020	U	ug/L	P413908	
		Sucralose	0.86		ug/L	P414088	
		Bentazon	0.13		ug/L	P413908	
		Benzovindiflupyr	0.0020	U	ug/L	P413908	
		Carbamazepine	8.0E-04	U	ug/L	P413908	
		Clothianidin	0.0020	U	ug/L	P413908	
		Dinotefuran	0.0042	I	ug/L	P413908	
		Diuron	0.054		ug/L	P413908	
		Fenuron	0.032	U	ug/L	P413908	
		Fluridone	0.033		ug/L	P413908	
		Imazapyr	0.035		ug/L	P413908	
		Hydrocodone	0.0020	U	ug/L	P413908	
		Ibuprofen	0.020	U	ug/L	P413908	
		Imidacloprid	0.014		ug/L	P413908	
		Linuron	0.0040	U	ug/L	P413908	
		Mandestrobin	0.0020	U	ug/L	P413908	
		MCPP	0.0040	U	ug/L	P413908	
		Naproxen	0.0080	U	ug/L	P413908	
		Primidone	0.0040	U	ug/L	P413908	
		Pyraclostrobin	0.0020	U	ug/L	P413908	
		Silvex	0.0040	U	ug/L	P413908	
		Thiamethoxam	0.0020	U	ug/L	P413908	
		Tolfenpyrad	0.0025	I	ug/L	P413908	
		Triclopyr	0.0040	U	ug/L	P413908	

Ref. Method and Comment:
EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample. Some MDLs are elevated due to required dilution of sample matrix.

Sample Location: Gamble Creek @ Golf Course **Collection Date/Time: 05/16/2022 11:30**

Field ID: G2SW0107 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2327275	EPA 8321B	Acesulfame K	0.22	I	ug/L	P414088	
		2,4-D	0.0020	U	ug/L	P413908	
		AMPA	17		ug/L	P414088	
		2,4,5-T	0.0040	U	ug/L	P413908	
		Acetaminophen	0.0080	U	ug/L	P413908	
		Endothall	0.25	U	ug/L	P414088	
		Acetamiprid	0.0020	U	ug/L	P413908	
		Glufosinate	0.10	U	ug/L	P414088	
		Glyphosate	9.2		ug/L	P414088	
		Afidopyropen	0.0020	U	ug/L	P413908	
		Sucralose	0.35		ug/L	P414088	
		Bentazon	0.048		ug/L	P413908	
		Benzovindiflupyr	0.0053	I	ug/L	P413908	
		Carbamazepine	8.0E-04	U	ug/L	P413908	
		Clothianidin	0.0020	U	ug/L	P413908	
		Dinotefuran	0.073		ug/L	P413908	
		Diuron	0.031		ug/L	P413908	
		Fenuron	0.032	U	ug/L	P413908	
		Fluridone	8.0E-04	U	ug/L	P413908	
		Imazapyr	0.098		ug/L	P413908	
		Hydrocodone	0.0020	U	ug/L	P413908	
		Ibuprofen	0.020	U	ug/L	P413908	
		Imidacloprid	0.041		ug/L	P413908	
		Linuron	0.0040	U	ug/L	P413908	
		Mandestrobin	0.0020	U	ug/L	P413908	
		MCPP	0.0040	U	ug/L	P413908	
		Naproxen	0.0080	U	ug/L	P413908	
		Primidone	0.0040	U	ug/L	P413908	
		Pyraclostrobin	0.0020	U	ug/L	P413908	
		Silvex	0.0040	U	ug/L	P413908	
		Thiamethoxam	0.012		ug/L	P413908	
		Tolfenpyrad	0.0020	U	ug/L	P413908	
		Triclopyr	0.0040	U	ug/L	P413908	

Ref. Method and Comment:
EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: Gamble Creek @ CR 675 **Collection Date/Time: 05/16/2022 11:50**

Field ID: G2SW0140 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2327256	DEP SOP: NU-094-1	Color (true)**	32		PCU	P413972	
	EPA 180.1 Rev. 2.0	Turbidity	1.2		NTU	P413977	
	EPA 300.0 Rev. 2.1	Chloride	24		mg Cl/L	P414106	
		Sulfate	130		mg SO4/L	P414110	
	SM 2320 B-2011	Total Alkalinity	85		mg CaCO3/L	P414067	
	SM 2540 C-2011	TDS	362		mg/L	P414397	
	SM 2540 D-2011	TSS	2	I	mg/L	P414312	
	SM 4500-F- C-2011	Fluoride	0.40		mg F/L	P414070	
2327258	EPA 350.1 Rev. 2.0	Ammonia-N	0.020		mg N/L	P414362	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.50		mg N/L	P414240	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.078		mg N/L	P414275	
	EPA 365.1 Rev. 2.0	Total-P	0.20		mg P/L	P414000	
	SM 5310 B-2011	Organic Carbon	8.0		mg C/L	P414078	

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Buffalo Creek Canal @ 115th Ave **Collection Date/Time: 05/16/2022 14:40**

Field ID: G1SW0123 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2327276	EPA 8321B	Acesulfame K	0.22	I	ug/L	P414088	
		2,4-D	0.11		ug/L	P413908	
		AMPA	3.7	I	ug/L	P414088	
		2,4,5-T	0.0040	U	ug/L	P413908	
		Acetaminophen	0.0080	U	ug/L	P413908	
		Endothall	0.25	U	ug/L	P414088	
		Acetamiprid	0.0020	U	ug/L	P413908	
		Glufosinate	0.10	U	ug/L	P414088	
		Glyphosate	5.6		ug/L	P414088	
		Afidopyropen	0.0020	U	ug/L	P413908	
		Sucralose	2.8		ug/L	P414088	
		Bentazon	0.066		ug/L	P413908	
		Benzovindiflupyr	0.029		ug/L	P413908	
		Carbamazepine	0.0034		ug/L	P413908	
		Clothianidin	0.0020	U	ug/L	P413908	
		Dinotefuran	0.0021	I	ug/L	P413908	
		Diuron	0.016		ug/L	P413908	
		Fenuron	0.032	U	ug/L	P413908	
		Fluridone	0.90		ug/L	P413908	
		Imazapyr	0.18		ug/L	P413908	
		Hydrocodone	0.0020	U	ug/L	P413908	
		Ibuprofen	0.020	U	ug/L	P413908	
		Imidacloprid	0.058		ug/L	P413908	
		Linuron	0.0040	U	ug/L	P413908	
		Mandestrobin	0.0020	U	ug/L	P413908	
		MCPP	0.0040	U	ug/L	P413908	
		Naproxen	0.0080	U	ug/L	P413908	
		Primidone	0.0053	I	ug/L	P413908	
		Pyraclostrobin	0.0020	U	ug/L	P413908	
		Silvex	0.0040	U	ug/L	P413908	
		Thiamethoxam	0.0020	U	ug/L	P413908	
		Tolfenpyrad	0.0020	U	ug/L	P413908	
		Triclopyr	0.0040	U	ug/L	P413908	

Ref. Method and Comment:
EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: Gamble Creek West Branch @ CR 675 **Collection Date/Time: 05/16/2022 12:20**

Field ID: G2SW0156 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2327277	EPA 8321B	Acesulfame K	0.10	U	ug/L	P414088	
		2,4-D	0.0020	U	ug/L	P413908	
		AMPA	0.99		ug/L	P414088	
		2,4,5-T	0.0040	U	ug/L	P413908	
		Acetaminophen	0.0080	U	ug/L	P413908	
		Endothall	0.25	U	ug/L	P414088	
		Acetamiprid	0.0020	U	ug/L	P413908	
		Glufosinate	0.10	U	ug/L	P414088	
		Glyphosate	0.56		ug/L	P414088	
		Afidopyropen	0.0020	U	ug/L	P413908	
		Sucralose	0.97		ug/L	P414088	
		Bentazon	0.026		ug/L	P413908	
		Benzovindiflupyr	0.0020	U	ug/L	P413908	
		Carbamazepine	8.0E-04	U	ug/L	P413908	
		Clothianidin	0.0020	I	ug/L	P413908	
		Dinotefuran	0.0020	U	ug/L	P413908	
		Diuron	0.0020	U	ug/L	P413908	
		Fenuron	0.032	U	ug/L	P413908	
		Fluridone	8.0E-04	U	ug/L	P413908	
		Imazapyr	0.63		ug/L	P413908	
		Hydrocodone	0.0020	U	ug/L	P413908	
		Ibuprofen	0.020	U	ug/L	P413908	
		Imidacloprid	0.0060	I	ug/L	P413908	
		Linuron	0.0040	U	ug/L	P413908	
		Mandestrobin	0.0020	U	ug/L	P413908	
		MCPP	0.0040	U	ug/L	P413908	
		Naproxen	0.0080	U	ug/L	P413908	
		Primidone	0.0040	U	ug/L	P413908	
		Pyraclostrobin	0.0020	U	ug/L	P413908	
		Silvex	0.0040	U	ug/L	P413908	
		Thiamethoxam	0.0020	U	ug/L	P413908	
		Tolfenpyrad	0.0020	U	ug/L	P413908	
		Triclopyr	0.0040	U	ug/L	P413908	

Ref. Method and Comment:
EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: Gilley Crk @ Stricklands **Collection Date/Time: 05/16/2022 14:10**

Field ID: G2SW0024 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2327257	DEP SOP: NU-094-1	Color (true)**	40		PCU	P413972	
	EPA 180.1 Rev. 2.0	Turbidity	1.8		NTU	P413977	
	EPA 300.0 Rev. 2.1	Chloride	14		mg Cl/L	P414106	
		Sulfate	51		mg SO4/L	P414110	
	SM 2320 B-2011	Total Alkalinity	43	A	mg CaCO3/L	P414067	
	SM 2540 C-2011	TDS	165		mg/L	P414397	
	SM 2540 D-2011	TSS	2	U	mg/L	P414312	
	SM 4500-F- C-2011	Fluoride	0.29		mg F/L	P414070	
2327259	EPA 350.1 Rev. 2.0	Ammonia-N	0.035		mg N/L	P414363	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.55		mg N/L	P414240	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.2		mg N/L	P414275	
	EPA 365.1 Rev. 2.0	Total-P	0.35		mg P/L	P414054	
	SM 5310 B-2011	Organic Carbon	6.8		mg C/L	P414078	

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Quality Assurance Report
Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P413972

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P413977

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P414106

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P414110

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P414362

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P414363

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P414240

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P414275

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P414000

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P414054

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

Reference Method: EPA 8321B
Batch ID: P413908

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	0.020	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	0.0040	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: EPA 8321B
Batch ID: P414088

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: SM 2320 B-2011
Batch ID: P414067

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

Quality Assurance Report
Method Blank Results

Reference Method: SM 2540 C-2011
Batch ID: P414397

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P414312

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P414070

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P414078

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: P413972

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	97.6		P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P413977

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	96.9		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P414106

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P414110

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P414362

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P414363

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P414240

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	96.9		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P414275

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	99.0		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P414000

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P414054

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

Reference Method: EPA 8321B
Batch ID: P413908

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	68.8		P	40 - 150
2,4,5-T	52.3		P	40 - 150
Acetaminophen	59.2		P	30 - 150
Acetamiprid	93.4		P	40 - 150
Afidopyropen	65.2		P	30 - 150
Bentazon	98.3		P	30 - 150
Benzovindiflupyr	95.3		P	40 - 150
Carbamazepine	88.3		P	40 - 150
Clothianidin	95.5		P	40 - 150
Dinotefuran	93.7		P	40 - 150
Diuron	84.1		P	40 - 150
Fenuron	104		P	40 - 150
Fluridone	82.2		P	40 - 150
Hydrocodone	93.0		P	40 - 150
Ibuprofen	59.1		P	40 - 150
Imazapyr	86.2		P	40 - 150
Imidacloprid	93.4		P	40 - 150
Linuron	78.6		P	40 - 150
Mandestrobin	80.7		P	40 - 150
MCPP	73.2		P	40 - 150
Naproxen	62.2		P	40 - 150
Primidone	85.3		P	40 - 150
Pyraclostrobin	79.1		P	40 - 150
Silvex	44.1		P	40 - 150
Thiamethoxam	98.0		P	40 - 150
Tolfenpyrad	52.2		P	30 - 150
Triclopyr	51.7		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P414088

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	139		P	40 - 150
AMPA	112		P	40 - 150
Endothall	88.7		P	40 - 150
Glufosinate	102		P	40 - 150
Glyphosate	99.3		P	40 - 150
Sucralose	97.9		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P414067

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.7		P	94 - 106

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 4500-F- C-2011
Batch ID: P414070

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.9		P	96 - 104

Reference Method: SM 5310 B-2011
Batch ID: P414078

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.6		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P414106

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2326976	Chloride	102		P	90 - 110
2327287	Chloride	102		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P414110

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2326976	Sulfate	99.0		P	90 - 110
2327287	Sulfate	97.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P414362

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327116	Ammonia-N	99.0	96.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P414363

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327259	Ammonia-N	95.0	93.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P414240

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327117	Kjeldahl Nitrogen	98.6	93.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P414275

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327207	NO2NO3-N	99.0	99.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P414000

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327119	Total-P	100	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P414054

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327259	Total-P	103	97.8	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P413908

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2326540	2,4-D	75.8	75.9	P/P	40 - 150
2326540	2,4,5-T	59.0	59.4	P/P	40 - 150

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P413908

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2326540	Acetaminophen	51.6	51.1	P/P	30 - 150
2326540	Acetamiprid	96.7	101	P/P	40 - 150
2326540	Afidopyropen	81.6	79.0	P/P	30 - 150
2326540	Bentazon	99.5	99.3	P/P	30 - 150
2326540	Benzovindiflupyr	88.2	86.7	P/P	40 - 150
2326540	Carbamazepine	89.4	88.9	P/P	40 - 150
2326540	Clothianidin	65.8	69.0	P/P	40 - 150
2326540	Dinotefuran	92.8	96.4	P/P	40 - 150
2326540	Diuron	78.0	86.7	P/P	40 - 150
2326540	Fenuron	90.9	94.0	P/P	40 - 150
2326540	Fluridone	80.9	81.7	P/P	40 - 150
2326540	Hydrocodone	85.6	89.2	P/P	40 - 150
2326540	Ibuprofen	59.9	61.9	P/P	40 - 150
2326540	Imazapyr	73.6	77.6	P/P	40 - 150
2326540	Imidacloprid	79.7	83.2	P/P	40 - 150
2326540	Linuron	71.3	68.7	P/P	40 - 150
2326540	Mandestrobin	76.6	78.4	P/P	40 - 150
2326540	MCPP	77.1	77.9	P/P	40 - 150
2326540	Naproxen	65.7	62.7	P/P	40 - 150
2326540	Primidone	68.7	74.5	P/P	40 - 150
2326540	Pyraclostrobin	72.9	77.3	P/P	40 - 150
2326540	Silvex	58.4	53.6	P/P	40 - 150
2326540	Thiamethoxam	83.6	86.6	P/P	40 - 150
2326540	Tolfenpyrad	44.0	46.8	P/P	30 - 150
2326540	Triclopyr	63.2	59.0	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P414088

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327275	Acesulfame K	112	118	P/P	40 - 150
2327275	Endothall	89.4	96.5	P/P	40 - 150
2327275	Glufosinate	99.2	95.7	P/P	40 - 150
2327275	Sucralose	96.9	102	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P414070

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327257	Fluoride	97.5	96.7	P/P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P414078

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327258	Organic Carbon	95.8	96.5	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P413972

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327114	Color (true)	6.77	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P413977

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327112	Turbidity	4.64	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P414106

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2326976	Chloride	2.95	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P414110

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2326976	Sulfate	1.71	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P414362

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327116	Ammonia-N	1.34	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P414363

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327259	Ammonia-N	0.856	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P414240

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327117	Kjeldahl Nitrogen	4.20	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P414275

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327207	NO2NO3-N	0.0	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P414000

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327119	Total-P	1.23	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P414054

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327259	Total-P	2.63	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P413908

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2326540	2,4-D	0.139	Spike	P	0 - 30
2326540	2,4,5-T	0.624	Spike	P	0 - 30
2326540	Acetaminophen	1.06	Spike	P	0 - 30
2326540	Acetamiprid	4.42	Spike	P	0 - 30
2326540	Afidopyropen	3.23	Spike	P	0 - 30
2326540	Bentazon	0.156	Spike	P	0 - 30
2326540	Benzovindiflupyr	1.76	Spike	P	0 - 30
2326540	Carbamazepine	0.590	Spike	P	0 - 30
2326540	Clothianidin	4.71	Spike	P	0 - 30
2326540	Dinotefuran	3.84	Spike	P	0 - 30
2326540	Diuron	10.6	Spike	P	0 - 30
2326540	Fenuron	3.39	Spike	P	0 - 30
2326540	Fluridone	1.00	Spike	P	0 - 30
2326540	Hydrocodone	4.08	Spike	P	0 - 30
2326540	Ibuprofen	3.18	Spike	P	0 - 30
2326540	Imazapyr	4.67	Spike	P	0 - 30
2326540	Imidacloprid	4.31	Spike	P	0 - 30
2326540	Linuron	3.82	Spike	P	0 - 30
2326540	Mandestrobin	2.26	Spike	P	0 - 30
2326540	MCPP	0.961	Spike	P	0 - 30
2326540	Naproxen	4.65	Spike	P	0 - 30
2326540	Primidone	8.16	Spike	P	0 - 30
2326540	Pyraclostrobin	5.85	Spike	P	0 - 30
2326540	Silvex	8.68	Spike	P	0 - 30
2326540	Thiamethoxam	3.52	Spike	P	0 - 30
2326540	Tolfenpyrad	6.09	Spike	P	0 - 30
2326540	Triclopyr	6.80	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P414088

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327275	Acesulfame K	5.34	Spike	P	0 - 30
2327275	AMPA	4.17	Spike	P	0 - 30
2327275	Endothall	7.60	Spike	P	0 - 30
2327275	Glufosinate	3.60	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P414088

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327275	Glyphosate	2.42	Spike	P	0 - 30
2327275	Sucralose	4.21	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P414067

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327257	Total Alkalinity	1.61	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2011
Batch ID: P414397

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2326674	TDS	5.46	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P414070

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327257	Fluoride	0.473	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P414078

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327258	Organic Carbon	0.514	Spike	P	0 - 20

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

Quality Assurance Report
Surrogates

Lab Sample ID: 2327275
Field Sample ID: G2SW0107

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	77.3	P	30 - 160
EPA 8321B	Acetaminophen-d4	41.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	80.1	P	30 - 160
EPA 8321B	Diuron-d6	60.6	P	30 - 160
EPA 8321B	Endothall-d6	79.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	92.2	P	30 - 160
EPA 8321B	Ibuprofen-d3	124	P	30 - 160
EPA 8321B	Primidone-d5	70.8	P	30 - 160
EPA 8321B	Sucralose-d6	90.3	P	30 - 160

Lab Sample ID: 2327276
Field Sample ID: G1SW0123

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	91.6	P	30 - 160
EPA 8321B	Acetaminophen-d4	41.9	P	30 - 160
EPA 8321B	Carbamazepine-d10	83.3	P	30 - 160
EPA 8321B	Diuron-d6	69.9	P	30 - 160
EPA 8321B	Endothall-d6	76.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	90.0	P	30 - 160
EPA 8321B	Ibuprofen-d3	58.7	P	30 - 160
EPA 8321B	Primidone-d5	85.0	P	30 - 160
EPA 8321B	Sucralose-d6	97.7	P	30 - 160

Lab Sample ID: 2327277
Field Sample ID: G2SW0156

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	92.3	P	30 - 160
EPA 8321B	Acetaminophen-d4	40.9	P	30 - 160
EPA 8321B	Carbamazepine-d10	79.1	P	30 - 160
EPA 8321B	Diuron-d6	35.4	P	30 - 160
EPA 8321B	Endothall-d6	91.0	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	92.7	P	30 - 160
EPA 8321B	Ibuprofen-d3	65.4	P	30 - 160
EPA 8321B	Primidone-d5	73.8	P	30 - 160
EPA 8321B	Sucralose-d6	103	P	30 - 160

Lab Sample ID: 2327278
Field Sample ID: G2SW0119

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	81.9	P	30 - 160
EPA 8321B	Acetaminophen-d4	41.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	82.7	P	30 - 160
EPA 8321B	Diuron-d6	60.1	P	30 - 160
EPA 8321B	Endothall-d6	83.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	97.3	P	30 - 160
EPA 8321B	Ibuprofen-d3	57.1	P	30 - 160
EPA 8321B	Primidone-d5	53.1	P	30 - 160
EPA 8321B	Sucralose-d6	73.6	P	30 - 160

Quality Assurance Report
Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A112198
Included Lab Sample IDs: 2327256, 2327257

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

Reference Method: DEP SOP: NU-094-1
Run ID: A112208
Included Lab Sample IDs: 2327256, 2327257

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.6	100	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A112209
Included Lab Sample IDs: 2327256, 2327257

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	101	P/P	95 - 105

Reference Method: SM 2320 B-2011
Run ID: A112245
Included Lab Sample IDs: 2327256, 2327257

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.8	99.2	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Run ID: A112245
Included Lab Sample IDs: 2327256, 2327257

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

Reference Method: SM 5310 B-2011
Run ID: A112250
Included Lab Sample IDs: 2327258, 2327259

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.7	95.8	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A112286
Included Lab Sample IDs: 2327275, 2327276, 2327277, 2327278

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	93.6	101	P/P	50 - 150
2,4,5-T	101	90.5	P/P	50 - 150
Acetaminophen	120	117	P/P	60 - 160
Acetamiprid	96.2	105	P/P	50 - 150
Afidopyropen	109	115	P/P	50 - 150
Bentazon	97.4	88.3	P/P	50 - 160

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A112286
Included Lab Sample IDs: 2327275, 2327276, 2327277, 2327278

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Benzovindiflupyr	112	117	P/P	50 - 150
Carbamazepine	105	116	P/P	60 - 150
Clothianidin	95.0	111	P/P	60 - 150
Dinotefuran	112	97.8	P/P	50 - 150
Diuron	101	81.5	P/P	60 - 160
Fenuron	100	93.4	P/P	60 - 150
Fluridone	107	100	P/P	60 - 160
Hydrocodone	106	99.0	P/P	60 - 150
Ibuprofen	106	77.3	P/P	50 - 160
Imazapyr	109	116	P/P	50 - 150
Imidacloprid	122	121	P/P	60 - 150
Linuron	129	75.0	P/P	60 - 150
Mandestrobin	105	110	P/P	50 - 150
MCPP	117	103	P/P	50 - 150
Naproxen	101	93.9	P/P	50 - 160
Primidone	86.8	135	P/P	60 - 150
Pyraclostrobin	104	107	P/P	60 - 150
Silvex	104	98.7	P/P	50 - 150
Thiamethoxam	127	121	P/P	50 - 150
Tolfenpyrad	105	122	P/P	60 - 150
Triclopyr	108	107	P/P	50 - 150

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A112305
Included Lab Sample IDs: 2327258

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	101	98.5	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A112324
Included Lab Sample IDs: 2327275, 2327276

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bentazon	100	99.8	P/P	50 - 160
Fluridone	107	105	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A112330
Included Lab Sample IDs: 2327275, 2327276, 2327277, 2327278

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	112	119	P/P	60 - 160
Endothall	90.0	88.1	P/P	60 - 160
Glufosinate	96.9	98.2	P/P	60 - 160
Glufosinate	98.2	105	P/P	60 - 160
Glyphosate	98.7	103	P/P	60 - 160

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A112331
Included Lab Sample IDs: 2327275, 2327276, 2327277, 2327278

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	141	148	P/P	60 - 160
AMPA	101	98.5	P/P	60 - 160
Glyphosate	102	100	P/P	60 - 160
Sucralose	98.2	105	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A112335
Included Lab Sample IDs: 2327259

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

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A112355
Included Lab Sample IDs: 2327258, 2327259

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	98.0	P/P	90 - 110
NO2NO3-N	96.5	96.0	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A112397
Included Lab Sample IDs: 2327258, 2327259

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.2	98.1	P/P	90 - 110
Ammonia-N	98.1	97.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A112447
Included Lab Sample IDs: 2327258, 2327259

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	95.2	94.0	P/P	90 - 110

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

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
DEP SOP: NU-094-1	Color (true)	97.6				6.77	
EPA 180.1 Rev. 2.0	Turbidity	96.9				4.64	
EPA 300.0 Rev. 2.1	Chloride	101	102	102		2.95	
	Sulfate	99.5	99.0	97.8		1.71	
EPA 350.1 Rev. 2.0	Ammonia-N	97.4	99.0	96.8			1.34
	Ammonia-N	96.4	95.0	93.6			0.856
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	96.9	98.6	93.0			4.20
EPA 353.2 Rev. 2.0	NO2NO3-N	99.0	99.0	99.0			0.0
EPA 365.1 Rev. 2.0	Total-P	101	100	102			1.23
	Total-P	104	103	97.8			2.63
EPA 8321B	2,4-D	68.8	75.8	75.9			0.139
	2,4,5-T	52.3	59.0	59.4			0.624
	Acesulfame K	139	112	118			5.34
	Acetaminophen	59.2	51.6	51.1			1.06
	Acetamiprid	93.4	96.7	101			4.42
	Afidopyropen	65.2	81.6	79.0			3.23
	AMPA	112					4.17
	Bentazon	98.3	99.5	99.3			0.156
	Benzovindiflupyr	95.3	88.2	86.7			1.76
	Carbamazepine	88.3	89.4	88.9			0.590
	Clothianidin	95.5	65.8	69.0			4.71
	Dinotefuran	93.7	92.8	96.4			3.84
	Diuron	84.1	78.0	86.7			10.6
	Endothall	88.7	89.4	96.5			7.60
	Fenuron	104	90.9	94.0			3.39
	Fluridone	82.2	80.9	81.7			1.00
	Glufosinate	102	99.2	95.7			3.60
	Glyphosate	99.3					2.42
	Hydrocodone	93.0	85.6	89.2			4.08
	Ibuprofen	59.1	59.9	61.9			3.18
	Imazapyr	86.2	73.6	77.6			4.67
	Imidacloprid	93.4	79.7	83.2			4.31
	Linuron	78.6	71.3	68.7			3.82
	Mandestrobin	80.7	76.6	78.4			2.26
	MCPP	73.2	77.1	77.9			0.961
	Naproxen	62.2	65.7	62.7			4.65
	Primidone	85.3	68.7	74.5			8.16
	Pyraclostrobin	79.1	72.9	77.3			5.85
	Silvex	44.1	58.4	53.6			8.68
	Sucralose	97.9	96.9	102			4.21
	Thiamethoxam	98.0	83.6	86.6			3.52
	Tolfenpyrad	52.2	44.0	46.8			6.09
	Triclopyr	51.7	63.2	59.0			6.80
SM 2320 B-2011	Total Alkalinity	98.7				1.61	
SM 2540 C-2011	TDS					5.46	
SM 4500-F- C-2011	Fluoride	99.9	97.5	96.7			0.473
SM 5310 B-2011	Organic Carbon	98.6	95.8	96.5			0.514

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2327256, 2327257
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2327256, 2327257

Reference Method Descriptions

Method	Description	Associated Samples
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2327256, 2327257
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2327256, 2327257
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2327258, 2327259
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2327258, 2327259
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2327258, 2327259
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2327258, 2327259
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2327275, 2327276, 2327277, 2327278
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2327256, 2327257
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2327256, 2327257
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2327256, 2327257
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2327256, 2327257
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2327258, 2327259

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: NU-094-1	05/17/2022			05/17/2022 15:24	Anna M. Plaviak	2327256, 2327257
EPA 180.1 Rev. 2.0	05/17/2022			05/17/2022 13:54	Khloe J Berg	2327256
	05/17/2022			05/17/2022 13:55	Khloe J Berg	2327257
EPA 300.0 Rev. 2.1	05/17/2022			05/19/2022 08:21	Anna M. Plaviak	2327256
	05/17/2022			05/19/2022 08:58	Anna M. Plaviak	2327257
EPA 350.1 Rev. 2.0	05/17/2022			05/25/2022 11:51	Ping Hua	2327258
	05/17/2022			05/25/2022 12:13	Ping Hua	2327259
EPA 351.2 Rev. 2.0	05/17/2022	05/24/2022 15:13	Samantha L Bates	05/26/2022 15:48	Alexandra J Mattheus	2327258
	05/17/2022	05/24/2022 15:13	Samantha L Bates	05/26/2022 15:50	Alexandra J Mattheus	2327259
EPA 353.2 Rev. 2.0	05/17/2022			05/24/2022 09:26	Beverly Y. Sanders	2327258
	05/17/2022			05/24/2022 10:59	Beverly Y. Sanders	2327259
EPA 365.1 Rev. 2.0	05/17/2022	05/19/2022 14:04	Simonne.V. Calhoun	05/20/2022 13:46	Sarah A Nixon	2327258
	05/17/2022	05/20/2022 15:00	Simonne.V. Calhoun	05/23/2022 11:22	Sarah A Nixon	2327259
EPA 8321B	05/17/2022	05/17/2022 14:00	June Rhew	05/20/2022 02:07	Juyoung Kim	2327275
	05/17/2022	05/17/2022 14:00	June Rhew	05/20/2022 02:42	Juyoung Kim	2327276
	05/17/2022	05/17/2022 14:00	June Rhew	05/20/2022 03:16	Juyoung Kim	2327277
	05/17/2022	05/17/2022 14:00	June Rhew	05/20/2022 03:51	Juyoung Kim	2327278
	05/17/2022	05/17/2022 14:00	June Rhew	05/20/2022 22:40	Juyoung Kim	2327275
	05/17/2022	05/17/2022 14:00	June Rhew	05/20/2022 23:15	Juyoung Kim	2327276
	05/17/2022	05/20/2022 08:00	Manjita Shrestha	05/21/2022 12:05	Manjita Shrestha	2327275
	05/17/2022	05/20/2022 08:00	Manjita Shrestha	05/21/2022 12:20	Manjita Shrestha	2327276
	05/17/2022	05/20/2022 08:00	Manjita Shrestha	05/21/2022 12:35	Manjita Shrestha	2327277
	05/17/2022	05/20/2022 08:00	Manjita Shrestha	05/21/2022 12:50	Manjita Shrestha	2327278
	05/17/2022	05/20/2022 08:00	Manjita Shrestha	05/22/2022 04:25	Manjita Shrestha	2327275
	05/17/2022	05/20/2022 08:00	Manjita Shrestha	05/22/2022 04:38	Manjita Shrestha	2327276
	05/17/2022	05/20/2022 08:00	Manjita Shrestha	05/22/2022 04:51	Manjita Shrestha	2327277
	05/17/2022	05/20/2022 08:00	Manjita Shrestha	05/22/2022 05:04	Manjita Shrestha	2327278
	05/17/2022	05/20/2022 08:00	Manjita Shrestha	05/22/2022 07:40	Manjita Shrestha	2327278
	05/17/2022	05/20/2022 08:00	Manjita Shrestha	05/23/2022 10:37	Manjita Shrestha	2327275
	05/17/2022	05/20/2022 08:00	Manjita Shrestha	05/23/2022 11:03	Manjita Shrestha	2327276
	05/17/2022	05/20/2022 08:00	Manjita Shrestha	05/23/2022 11:16	Manjita Shrestha	2327277
SM 2320 B-2011	05/17/2022			05/18/2022 23:06	Dale L. Simmons	2327257
	05/17/2022			05/19/2022 00:03	Dale L. Simmons	2327256
SM 2540 C-2011	05/17/2022			05/18/2022 14:36	Yijie Li	2327256, 2327257
SM 2540 D-2011	05/17/2022			05/18/2022 14:36	Yijie Li	2327256, 2327257
SM 4500-F- C-2011	05/17/2022			05/18/2022 22:57	Dale L. Simmons	2327257
	05/17/2022			05/19/2022 00:03	Dale L. Simmons	2327256
SM 5310 B-2011	05/17/2022			05/18/2022 18:58	Judith K. Clark	2327258
	05/17/2022			05/18/2022 19:58	Judith K. Clark	2327259