

Chemical Analysis Report

NW-DIST-2021-04-21-01

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

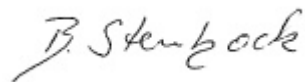
Event Description: **Eglin West Run**
Request ID: **RQ-2021-04-19-32**
Customer: **NW-DIST**
Project ID: **SMP**

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Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator

Date Certified: 11-MAY-2021 12:54



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: Metals, 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: Turkey Creek upstream of Eglin Road 232

Collection Date/Time: 04/20/2021 09:45

Field ID: G3NW0093

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2241374	EPA 8321B	2,4-D	0.0020	U	ug/L	P396984	
		Acesulfame K	0.10	U	ug/L	P396893	MS
		2,4,5-T	0.0040	U	ug/L	P396984	
		AMPA	0.10	U	ug/L	P396893	
		Sucralose	0.010	U	ug/L	P396893	
		Acetaminophen	0.025	I	ug/L	P396984	
		Acetamiprid	0.0020	U	ug/L	P396984	
		Endothall	0.25	U	ug/L	P396893	
		Glufosinate	0.10	U	ug/L	P396893	
		Glyphosate	0.10	U	ug/L	P396893	
		Afidopyropen	0.0020	U	ug/L	P396984	
		Bentazon	8.0E-04	U	ug/L	P396984	
		Benzovindiflupyr	0.0020	U	ug/L	P396984	
		Carbamazepine	8.0E-04	U	ug/L	P396984	
		Clothianidin	0.0020	U	ug/L	P396984	
		Dinotefuran	0.0020	U	ug/L	P396984	
		Diuron	0.0020	U	ug/L	P396984	
		Fenuron	0.016	U	ug/L	P396984	
		Fluridone	8.0E-04	U	ug/L	P396984	
		Imazapyr	0.0040	U	ug/L	P396984	
		Hydrocodone	0.0020	U	ug/L	P396984	
		Ibuprofen	0.020	U	ug/L	P396984	
		Imidacloprid	0.0020	U	ug/L	P396984	MS
		Linuron	0.0040	U	ug/L	P396984	
		Mandestrobin	0.0020	U	ug/L	P396984	
		MCPP	0.0020	U	ug/L	P396984	MS
		Naproxen	0.0080	U	ug/L	P396984	
		Primidone	0.0040	U	ug/L	P396984	
		Pyraclostrobin	0.0020	U	ug/L	P396984	
		Thiamethoxam	0.0020	U	ug/L	P396984	MS
		Tolfenpyrad	0.0020	U	ug/L	P396984	
		Triclopyr	0.0040	U	ug/L	P396984	MS

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: Juniper Creek upstream of Eglin Rd 221

Collection Date/Time: 04/20/2021 10:10

Field ID: G3NW0170

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2241364	EPA 180.1 Rev. 2.0	Turbidity	0.95		NTU	P396930	
	EPA 300.0 Rev. 2.1	Chloride	2.3		mg Cl/L	P397124	
		Sulfate	0.69		mg SO4/L	P397127	
	SM 2120 B-2011	Color (true)	9.9		PCU	P396934	
	SM 2320 B-2011	Total Alkalinity	1.1	I	mg CaCO3/L	P397029	
	SM 2540 C-2011	TDS	15	U	mg/L	P397415	
	SM 2540 D-2011	TSS	2	I	mg/L	P397163	
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P397030	
2241365	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P397513	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P397111	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.13		mg N/L	P397177	
	EPA 365.1 Rev. 2.0	Total-P	0.002	I	mg P/L	P397015	MS
	SM 5310 B-2011	Organic Carbon	0.87	I	mg C/L	P397241	
2241366	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P396925	
2241376	EPA 200.7 Rev. 4.4	Barium	8.5		ug/L	P397699	
		Calcium	0.45		mg/L	P397699	
		Iron	30	U	ug/L	P397699	
		Magnesium	0.35		mg/L	P397699	
		Manganese	3.1	I	ug/L	P397699	
		Potassium	0.30	U	mg/L	P397699	
		Sodium	1.7	I	mg/L	P397699	
		Zinc	5.0	U	ug/L	P397699	
	EPA 200.8 Rev. 5.4	Aluminum	57		ug/L	P397699	
		Antimony	0.050	U	ug/L	P397699	
		Arsenic	0.050	U	ug/L	P397699	
		Beryllium	0.010	U	ug/L	P397699	
		Boron**	7.5	I	ug/L	P397699	
		Cadmium	0.020	U	ug/L	P397699	
		Chromium	0.40	U	ug/L	P397699	
		Copper	0.40	U	ug/L	P397699	
		Lead	0.20	U	ug/L	P397699	
		Nickel	0.50	U	ug/L	P397699	
		Selenium	0.20	U	ug/L	P397699	
		Silver	0.010	U	ug/L	P397699	
		Thallium	0.10	U	ug/L	P397699	
		Hardness	2.6		mg/L	P397699	

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: Juniper Creek above Hwy 85

Collection Date/Time: 04/20/2021 10:35

Field ID: G3NW0095

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2241375	EPA 8321B	2,4-D	0.0020	U	ug/L	P396984	
		Acesulfame K	0.10	U	ug/L	P396893	MS
		2,4,5-T	0.0040	U	ug/L	P396984	
		AMPA	0.10	U	ug/L	P396893	
		Sucralose	0.010	U	ug/L	P396893	
		Acetaminophen	0.0080	U	ug/L	P396984	
		Acetamiprid	0.0020	U	ug/L	P396984	
		Endothall	0.25	U	ug/L	P396893	
		Glufosinate	0.10	U	ug/L	P396893	
		Glyphosate	0.10	U	ug/L	P396893	
		Afidopyropen	0.0020	U	ug/L	P396984	
		Bentazon	8.0E-04	U	ug/L	P396984	
		Benzovindiflupyr	0.0020	U	ug/L	P396984	
		Carbamazepine	8.0E-04	U	ug/L	P396984	
		Clothianidin	0.0020	U	ug/L	P396984	
		Dinotefuran	0.0020	U	ug/L	P396984	
		Diuron	0.0020	U	ug/L	P396984	
		Fenuron	0.016	U	ug/L	P396984	
		Fluridone	8.0E-04	U	ug/L	P396984	
		Imazapyr	0.0040	U	ug/L	P396984	
		Hydrocodone	0.0020	U	ug/L	P396984	
		Ibuprofen	0.020	U	ug/L	P396984	
		Imidacloprid	0.0020	U	ug/L	P396984	MS
		Linuron	0.0040	U	ug/L	P396984	
		Mandestrobin	0.0020	U	ug/L	P396984	
		MCPP	0.0020	U	ug/L	P396984	MS
		Naproxen	0.0080	U	ug/L	P396984	
		Primidone	0.0040	U	ug/L	P396984	
		Pyraclostrobin	0.0020	U	ug/L	P396984	
		Thiamethoxam	0.0020	U	ug/L	P396984	MS
		Tolfenpyrad	0.0020	U	ug/L	P396984	
		Triclopyr	0.0040	U	ug/L	P396984	MS

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.

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P396930

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P397699

Component	Result	Code	Units
Barium	1.0	U	ug/L
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Manganese	1.0	U	ug/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P397699

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Beryllium	0.010	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P397124

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P397127

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P397513

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P397111

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P397177

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P397015

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P396925

Component	Result	Code	Units
O-Phosphate-P	0.004	U	mg P/L

Reference Method: EPA 8321B
Batch ID: P396893

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: P396984

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	0.016	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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P396984

Component	Result	Code	Units
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
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2120 B-2011
Batch ID: P396934

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P397029

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

Reference Method: SM 2540 C-2011
Batch ID: P397415

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P397163

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P397030

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P397241

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P397699

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	101		P	85 - 115
Calcium	109		P	85 - 115
Iron	105		P	85 - 115
Magnesium	105		P	85 - 115
Manganese	104		P	85 - 115
Potassium	104		P	85 - 115
Sodium	110		P	85 - 115
Zinc	105		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P397699

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	90.1		P	85 - 115
Antimony	99.2		P	85 - 115
Arsenic	91.4		P	85 - 115
Beryllium	91.9		P	85 - 115
Boron	94.9		P	85 - 115
Cadmium	92.5		P	85 - 115
Chromium	90.9		P	85 - 115
Copper	91.2		P	85 - 115
Lead	98.1		P	85 - 115
Nickel	89.3		P	85 - 115
Selenium	91.8		P	85 - 115
Silver	95.7		P	85 - 115
Thallium	100		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P397124

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P397127

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P397513

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P397111

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	97.3		P	90 - 110

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P397177

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

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P397015

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P396925

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	97.9		P	90 - 110

Reference Method: EPA 8321B

Batch ID: P396893

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	124		P	40 - 150
AMPA	97.8		P	40 - 150
Endothall	143		P	40 - 150
Glufosinate	99.6		P	40 - 150
Glyphosate	89.4		P	40 - 140
Sucralose	105		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P396984

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	151		P	30 - 160
2,4,5-T	138		P	30 - 160
Acetaminophen	112		P	30 - 150
Acetamiprid	111		P	30 - 160
Afidopyropen	92.0		P	30 - 160
Bentazon	44.0		P	30 - 150
Benzovindiflupyr	83.1		P	30 - 160
Carbamazepine	94.7		P	30 - 160
Clothianidin	110		P	30 - 160
Dinotefuran	85.9		P	30 - 160
Diuron	78.4		P	30 - 160
Fenuron	103		P	30 - 160
Fluridone	103		P	30 - 160
Hydrocodone	111		P	30 - 160
Ibuprofen	77.4		P	30 - 160
Imazapyr	111		P	30 - 160
Imidacloprid	114		P	30 - 160
Linuron	77.8		P	30 - 160
Mandestrobin	98.6		P	30 - 160
MCPP	158		P	30 - 160
Naproxen	111		P	30 - 160
Primidone	103		P	30 - 160
Pyraclostrobin	76.6		P	30 - 160

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P396984

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Thiamethoxam	121		P	30 - 160
Tolfenpyrad	49.9		P	30 - 160
Triclopyr	150		P	30 - 160

Reference Method: SM 2120 B-2011
Batch ID: P396934

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

Reference Method: SM 2320 B-2011
Batch ID: P397029

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	93 - 104

Reference Method: SM 4500 F-C-2011
Batch ID: P397030

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	100		P	90 - 106

Reference Method: SM 5310 B-2011
Batch ID: P397241

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 200.7 Rev. 4.4

Batch ID: P397699

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2241376	Barium	100	101	P/P	80 - 120
2241376	Calcium	107	107	P/P	80 - 120
2241376	Iron	106	106	P/P	80 - 120
2241376	Magnesium	105	105	P/P	80 - 120
2241376	Manganese	102	103	P/P	80 - 120
2241376	Potassium	105	107	P/P	80 - 120
2241376	Sodium	107	106	P/P	80 - 120
2241376	Zinc	104	104	P/P	80 - 120
2241409	Barium	102		P	80 - 120
2241409	Calcium	105		P	80 - 120
2241409	Iron	105		P	80 - 120
2241409	Magnesium	104		P	80 - 120
2241409	Manganese	105		P	80 - 120
2241409	Potassium	105		P	80 - 120
2241409	Sodium	106		P	80 - 120
2241409	Zinc	107		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P397699

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2241376	Aluminum	100	97.6	P/P	80 - 120
2241376	Antimony	103	104	P/P	80 - 120
2241376	Arsenic	97.4	98.0	P/P	80 - 120
2241376	Beryllium	94.5	92.3	P/P	80 - 120
2241376	Boron	103	100	P/P	80 - 120
2241376	Cadmium	102	101	P/P	80 - 120
2241376	Chromium	100	100	P/P	80 - 120
2241376	Copper	99.3	100	P/P	80 - 120
2241376	Lead	109	103	P/P	80 - 120
2241376	Nickel	96.8	97.9	P/P	80 - 120
2241376	Selenium	99.8	97.4	P/P	80 - 120
2241376	Silver	99.1	99.2	P/P	80 - 120
2241376	Thallium	105	105	P/P	80 - 120
2241409	Aluminum	86.8		P	80 - 120
2241409	Antimony	103		P	80 - 120
2241409	Arsenic	98.1		P	80 - 120
2241409	Beryllium	90.4		P	80 - 120
2241409	Boron	102		P	80 - 120
2241409	Cadmium	105		P	80 - 120
2241409	Chromium	101		P	80 - 120
2241409	Copper	97.4		P	80 - 120
2241409	Lead	108		P	80 - 120
2241409	Nickel	98.6		P	80 - 120
2241409	Selenium	97.5		P	80 - 120
2241409	Silver	100		P	80 - 120
2241409	Thallium	105		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P397124

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P397124

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2241184	Chloride	98.9		P	90 - 110
2241315	Chloride	99.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P397127

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2241184	Sulfate	98.6		P	90 - 110
2241315	Sulfate	99.3		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P397513

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2241365	Ammonia-N	98.4	98.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P397111

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2241365	Kjeldahl Nitrogen	103	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P397177

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2241318	NO2NO3-N	96.0	97.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P397015

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2241305	Total-P	111	109	F/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P396925

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2241300	O-Phosphate-P	97.0	96.4	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P396893

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2240988	Acesulfame K	152	137	F/P	40 - 150
2240988	AMPA	99.5	102	P/P	40 - 150
2240988	Endothall	98.4	90.0	P/P	40 - 150
2240988	Glufosinate	101	94.4	P/P	40 - 150
2240988	Glyphosate	63.8	80.9	P/P	40 - 140
2240988	Sucralose	108	107	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P396984

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2241346	2,4-D	154	158	P/P	30 - 160
2241346	2,4,5-T	146	150	P/P	30 - 160
2241346	Acetaminophen	111	91.8	P/P	30 - 150
2241346	Acetamiprid	115	120	P/P	30 - 160
2241346	Afidopyropen	104	102	P/P	30 - 160
2241346	Benzovindiflupyr	100	98.5	P/P	30 - 160
2241346	Carbamazepine	96.4	90.0	P/P	30 - 160
2241346	Clothianidin	125	127	P/P	30 - 160
2241346	Dinotefuran	155	156	P/P	30 - 160
2241346	Diuron	73.3	56.6	P/P	30 - 160
2241346	Fenuron	118	111	P/P	30 - 160
2241346	Fluridone	120	121	P/P	30 - 160
2241346	Hydrocodone	131	132	P/P	30 - 160
2241346	Ibuprofen	102	76.7	P/P	30 - 160
2241346	Imidacloprid	244	236	F/F	30 - 160
2241346	Linuron	78.6	81.6	P/P	30 - 160
2241346	Mandestrobin	107	110	P/P	30 - 160
2241346	MCPP	181	184	F/F	30 - 160
2241346	Naproxen	89.7	99.3	P/P	30 - 160
2241346	Primidone	131	119	P/P	30 - 160
2241346	Pyraclostrobin	98.5	99.1	P/P	30 - 160
2241346	Thiamethoxam	195	196	F/F	30 - 160
2241346	Tolfenpyrad	66.3	70.6	P/P	30 - 160
2241346	Triclopyr	163	152	F/P	30 - 160

Reference Method: SM 4500 F-C-2011
Batch ID: P397030

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2241298	Fluoride	98.2	98.9	P/P	94 - 107

Reference Method: SM 5310 B-2011
Batch ID: P397241

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2241322	Organic Carbon	97.2	97.6	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P396930

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241315	Turbidity	4.00	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P397699

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241376	Barium	0.483	Spike	P	0 - 20
2241376	Calcium	0.230	Spike	P	0 - 20
2241376	Iron	0.376	Spike	P	0 - 20
2241376	Magnesium	0.116	Spike	P	0 - 20
2241376	Manganese	0.406	Spike	P	0 - 20
2241376	Potassium	2.38	Spike	P	0 - 20
2241376	Sodium	0.739	Spike	P	0 - 20
2241376	Zinc	0.196	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P397699

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241376	Aluminum	2.29	Spike	P	0 - 20
2241376	Antimony	0.374	Spike	P	0 - 20
2241376	Arsenic	0.597	Spike	P	0 - 20
2241376	Beryllium	2.30	Spike	P	0 - 20
2241376	Boron	2.10	Spike	P	0 - 20
2241376	Cadmium	0.856	Spike	P	0 - 20
2241376	Chromium	0.113	Spike	P	0 - 20
2241376	Copper	0.979	Spike	P	0 - 20
2241376	Lead	5.85	Spike	P	0 - 20
2241376	Nickel	1.16	Spike	P	0 - 20
2241376	Selenium	2.39	Spike	P	0 - 20
2241376	Silver	0.0470	Spike	P	0 - 20
2241376	Thallium	0.684	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P397124

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241315	Chloride	0.530	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P397127

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241315	Sulfate	0.298	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P397513

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241365	Ammonia-N	0.406	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P397111

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241365	Kjeldahl Nitrogen	3.04	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P397177

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241318	NO2NO3-N	0.466	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P397015

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241305	Total-P	1.65	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P396925

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241300	O-Phosphate-P	0.477	Spike	P	0 - 20

Reference Method: EPA 8321B

Batch ID: P396893

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2240988	Acesulfame K	10.0	Spike	P	0 - 30
2240988	AMPA	2.79	Spike	P	0 - 30
2240988	Endothall	8.93	Spike	P	0 - 30
2240988	Glufosinate	6.28	Spike	P	0 - 30
2240988	Glyphosate	23.7	Spike	P	0 - 30
2240988	Sucralose	0.828	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P396984

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241346	2,4-D	2.49	Spike	P	0 - 30
2241346	2,4,5-T	2.47	Spike	P	0 - 30
2241346	Acetaminophen	15.7	Spike	P	0 - 30
2241346	Acetamidrid	4.09	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P396984

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241346	Afidopyropen	1.46	Spike	P	0 - 30
2241346	Bentazon	16.5	Spike	P	0 - 30
2241346	Benzovindiflupyr	1.66	Spike	P	0 - 30
2241346	Carbamazepine	6.87	Spike	P	0 - 30
2241346	Clothianidin	1.52	Spike	P	0 - 30
2241346	Dinotefuran	0.803	Spike	P	0 - 30
2241346	Diuron	25.7	Spike	P	0 - 30
2241346	Fenuron	5.96	Spike	P	0 - 30
2241346	Fluridone	0.683	Spike	P	0 - 30
2241346	Hydrocodone	0.830	Spike	P	0 - 30
2241346	Ibuprofen	28.5	Spike	P	0 - 30
2241346	Imazapyr	4.89	Spike	P	0 - 30
2241346	Imidacloprid	2.76	Spike	P	0 - 30
2241346	Linuron	3.71	Spike	P	0 - 30
2241346	Mandestrobin	3.57	Spike	P	0 - 30
2241346	MCPP	1.32	Spike	P	0 - 30
2241346	Naproxen	10.1	Spike	P	0 - 30
2241346	Primidone	9.53	Spike	P	0 - 30
2241346	Pyraclostrobin	0.678	Spike	P	0 - 30
2241346	Thiamethoxam	0.613	Spike	P	0 - 30
2241346	Tolfenpyrad	6.33	Spike	P	0 - 30
2241346	Triclopyr	6.93	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P396934

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241314	Color (true)	0.696	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P397029

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241298	Total Alkalinity	0.205	Sample	P	0 - 8.1

Reference Method: SM 2540 C-2011
Batch ID: P397415

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241312	TDS	1.01	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P397030

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241298	Fluoride	0.486	Spike	P	0 - 2.8

Quality Assurance Report Precision

Reference Method: SM 5310 B-2011

Batch ID: P397241

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241322	Organic Carbon	0.226	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2241374

Field Sample ID: G3NW0093

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	144	P	30 - 160
EPA 8321B	Acetaminophen-d4	109	P	30 - 160
EPA 8321B	Carbamazepine-d10	124	P	30 - 160
EPA 8321B	Diuron-d6	89.3	P	30 - 160
EPA 8321B	Endothall-d6	102	P	40 - 160
EPA 8321B	Endothall-d6	102	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	61.7	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	61.7	P	40 - 160
EPA 8321B	Ibuprofen-d3	91.4	P	30 - 160
EPA 8321B	Primidone-d5	111	P	30 - 160
EPA 8321B	Sucralose-d6	104	P	30 - 160
EPA 8321B	Sucralose-d6	104	P	30 - 160

Lab Sample ID: 2241375

Field Sample ID: G3NW0095

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	148	P	30 - 160
EPA 8321B	Acetaminophen-d4	105	P	30 - 160
EPA 8321B	Carbamazepine-d10	117	P	30 - 160
EPA 8321B	Diuron-d6	80.7	P	30 - 160
EPA 8321B	Endothall-d6	124	P	40 - 160
EPA 8321B	Endothall-d6	124	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	52.7	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	52.7	P	40 - 160
EPA 8321B	Ibuprofen-d3	102	P	30 - 160
EPA 8321B	Primidone-d5	108	P	30 - 160
EPA 8321B	Sucralose-d6	103	P	30 - 160
EPA 8321B	Sucralose-d6	103	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A104869

Included Lab Sample IDs: 2241364

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.6	99.8	P/P	90 - 110
Sulfate	98.5	98.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A104886

Included Lab Sample IDs: 2241366

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	99.9	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A104887

Included Lab Sample IDs: 2241364

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

Reference Method: SM 2120 B-2011

Run ID: A104888

Included Lab Sample IDs: 2241364

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	101	P/P	90 - 115

Reference Method: EPA 8321B

Run ID: A104895

Included Lab Sample IDs: 2241374, 2241375

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	96.0	86.3	P/P	40 - 160
AMPA	102	95.0	P/P	40 - 160
Endothall	104	78.5	P/P	40 - 160
Glufosinate	103	90.9	P/P	40 - 160
Glyphosate	86.0	74.4	P/P	40 - 160

Reference Method: SM 2320 B-2011

Run ID: A104923

Included Lab Sample IDs: 2241364

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.5	99.3	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A104923

Included Lab Sample IDs: 2241364

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	103	102	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A104995

Included Lab Sample IDs: 2241365

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	99.5	100	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A105019

Included Lab Sample IDs: 2241365

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.4	95.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A105021

Included Lab Sample IDs: 2241365

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.6	96.3	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A105059

Included Lab Sample IDs: 2241365

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	102	98.5	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A105083

Included Lab Sample IDs: 2241374, 2241375

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	110	105	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A105098

Included Lab Sample IDs: 2241374, 2241375

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	118	116	P/P	50 - 150
2,4,5-T	109	117	P/P	50 - 150
Acetaminophen	125	114	P/P	60 - 160
Acetamiprid	122	120	P/P	50 - 150
Afidopyropen	133	137	P/P	50 - 150
Bentazon	138	110	P/P	50 - 160
Benzovindiflupyr	114	114	P/P	50 - 160
Carbamazepine	119	120	P/P	60 - 150
Clothianidin	108	124	P/P	60 - 150
Dinotefuran	135	128	P/P	50 - 150
Diuron	110	111	P/P	60 - 160
Fenuron	116	114	P/P	60 - 150
Fluridone	129	136	P/P	60 - 160
Hydrocodone	130	126	P/P	60 - 150
Ibuprofen	89.7	86.8	P/P	50 - 160
Imazapyr	129	129	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A105098

Included Lab Sample IDs: 2241374, 2241375

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Imidacloprid	124	123	P/P	60 - 150
Linuron	122	109	P/P	60 - 150
Mandestrobin	117	116	P/P	50 - 150
MCPP	110	99.5	P/P	50 - 150
Naproxen	116	115	P/P	50 - 160
Primidone	110	119	P/P	60 - 150
Pyraclostrobin	120	112	P/P	60 - 150
Thiamethoxam	131	139	P/P	50 - 150
Tolfenpyrad	127	102	P/P	60 - 150
Triclopyr	115	128	P/P	50 - 150

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A105117

Included Lab Sample IDs: 2241365

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.9	97.5	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A105239

Included Lab Sample IDs: 2241376

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	103	104	P/P	90 - 110
Calcium	103	103	P/P	90 - 110
Iron	104	101	P/P	90 - 110
Magnesium	103	100	P/P	90 - 110
Manganese	103	104	P/P	90 - 110
Potassium	106	103	P/P	90 - 110
Sodium	106	105	P/P	90 - 110
Zinc	104	105	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A105242

Included Lab Sample IDs: 2241376

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	103	103	P/P	90 - 110
Antimony	104	105	P/P	90 - 110
Arsenic	99.0	99.6	P/P	90 - 110
Beryllium	99.6	99.5	P/P	90 - 110
Boron	101	103	P/P	90 - 110
Cadmium	102	103	P/P	90 - 110
Chromium	99.9	102	P/P	90 - 110
Copper	97.3	98.7	P/P	90 - 110
Nickel	97.9	99.2	P/P	90 - 110
Selenium	101	103	P/P	90 - 110
Silver	99.4	100	P/P	90 - 110
Thallium	101	102	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A105268

Included Lab Sample IDs: 2241376

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Lead	105	95.0	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			LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity								4.00	
EPA 200.7 Rev. 4.4	Barium	101			100	101	102			0.483
	Calcium	109			107	107	105			0.230
	Iron	105			106	106	105			0.376
	Magnesium	105			105	105	104			0.116
	Manganese	104			102	103	105			0.406
	Potassium	104			105	107	105			2.38
	Sodium	110			107	106	106			0.739
	Zinc	105			104	104	107			0.196
EPA 200.8 Rev. 5.4	Aluminum	90.1			100	97.6	86.8			2.29
	Antimony	99.2			103	104	103			0.374
	Arsenic	91.4			97.4	98.0	98.1			0.597
	Beryllium	91.9			94.5	92.3	90.4			2.30
	Boron	94.9			103	100	102			2.10
	Cadmium	92.5			102	101	105			0.856
	Chromium	90.9			100	100	101			0.113
	Copper	91.2			99.3	100	97.4			0.979
	Lead	98.1			109	103	108			5.85
	Nickel	89.3			96.8	97.9	98.6			1.16
	Selenium	91.8			99.8	97.4	97.5			2.39
	Silver	95.7			99.1	99.2	100			0.0470
	Thallium	100			105	105	105			0.684
EPA 300.0 Rev. 2.1	Chloride	99.5			99.7	98.9			0.530	
	Sulfate	98.2			99.3	98.6			0.298	
EPA 350.1 Rev. 2.0	Ammonia-N	96.8			98.4	98.8				0.406
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	97.3			103	100				3.04
EPA 353.2 Rev. 2.0	NO2NO3-N	99.5			96.0	97.0				0.466
EPA 365.1 Rev. 2.0	Total-P	110			111	109				1.65
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.9			97.0	96.4				0.477
EPA 8321B	2,4-D	151			154	158				2.49
	2,4,5-T	138			146	150				2.47
	Acesulfame K	124			152	137				10.0
	Acetaminophen	112			111	91.8				15.7
	Acetamiprid	111			115	120				4.09
	Afidopyropen	92.0			104	102				1.46
	AMPA	97.8			102	99.5				2.79
	Bentazon	44.0								16.5
	Benzovindiflupyr	83.1			100	98.5				1.66
	Carbamazepine	94.7			96.4	90.0				6.87
	Clothianidin	110			125	127				1.52
	Dinotefuran	85.9			155	156				0.803
	Diuron	78.4			73.3	56.6				25.7
	Endothall	143			98.4	90.0				8.93
	Fenuron	103			118	111				5.96
	Fluridone	103			120	121				0.683
	Glufosinate	99.6			94.4	101				6.28
	Glyphosate	89.4			63.8	80.9				23.7
	Hydrocodone	111			131	132				0.830
	Ibuprofen	77.4			102	76.7				28.5
	Imazapyr	111								4.89
	Imidacloprid	114			244	236				2.76
	Linuron	77.8			78.6	81.6				3.71
	Mandestrobin	98.6			107	110				3.57
	MCP	158			181	184				1.32

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8321B	Naproxen	111	89.7	99.3			10.1
	Primidone	103	131	119			9.53
	Pyraclostrobin	76.6	98.5	99.1			0.678
	Sucralose	105	108	107			0.828
	Thiamethoxam	121	195	196			0.613
	Tolfenpyrad	49.9	66.3	70.6			6.33
	Triclopyr	150	163	152			6.93
SM 2120 B-2011	Color (true)	100				0.696	
SM 2320 B-2011	Total Alkalinity	102				0.205	
SM 2540 C-2011	TDS					1.01	
SM 4500 F-C-2011	Fluoride	100	98.2	98.9			0.486
SM 5310 B-2011	Organic Carbon	96.1	97.2	97.6			0.226

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2241364
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2241376
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2241376
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2241364
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2241364
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2241365
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2241365
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2241365
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2241365
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2241366
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2241374, 2241375
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2241374, 2241375
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2241364
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2241364
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2241376
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2241364
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2241364
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2241364
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2241365

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	04/21/2021			04/21/2021 15:18	Yen Ta	2241364
EPA 200.7 Rev. 4.4	04/21/2021	05/05/2021 17:10	Elliott D. Healy	05/06/2021 20:38	Betina Topolski	2241376
EPA 200.8 Rev. 5.4	04/21/2021	05/05/2021 17:10	Elliott D. Healy	05/06/2021 19:34	McKinley C Carter	2241376
	04/21/2021	05/05/2021 17:10	Elliott D. Healy	05/08/2021 06:22	Alexander Thompson	2241376
EPA 300.0 Rev. 2.1	04/21/2021			04/24/2021 02:01	Lipi Saha	2241364
EPA 350.1 Rev. 2.0	04/21/2021			05/01/2021 12:11	Ping Hua	2241365
EPA 351.2 Rev. 2.0	04/21/2021	04/25/2021 14:48	Benjamin T. Nordmann	04/27/2021 14:10	Virginia P. Brown	2241365
EPA 353.2 Rev. 2.0	04/21/2021			04/26/2021 16:46	Touraj Touran	2241365
EPA 365.1 Rev. 2.0	04/21/2021	04/22/2021 16:03	Yen Ta	04/28/2021 14:54	Shengyu Ding	2241365
EPA 365.1 Rev. 2.0 dissolved	04/21/2021			04/21/2021 14:39	Blanca Fach	2241366
EPA 8321B	04/21/2021	04/21/2021 14:30	Rebecca Ware	04/21/2021 15:34	Rebecca Ware	2241374
	04/21/2021	04/21/2021 14:30	Rebecca Ware	04/21/2021 15:48	Rebecca Ware	2241375
	04/21/2021	04/21/2021 14:30	Rebecca Ware	04/28/2021 22:53	Rebecca Ware	2241374
	04/21/2021	04/21/2021 14:30	Rebecca Ware	04/28/2021 23:04	Rebecca Ware	2241375
	04/21/2021	04/26/2021 09:00	Hoor Shaik	04/30/2021 21:20	Juyoung Kim	2241374
	04/21/2021	04/26/2021 09:00	Hoor Shaik	04/30/2021 21:54	Juyoung Kim	2241375
SM 2120 B-2011	04/21/2021			04/21/2021 16:52	Madeline Gruver	2241364
SM 2320 B-2011	04/21/2021			04/22/2021 23:34	Dale L. Simmons	2241364
SM 2340B	04/21/2021			05/06/2021 20:38	Betina Topolski	2241376
SM 2540 C-2011	04/21/2021			04/23/2021 15:31	Yijie Li	2241364
SM 2540 D-2011	04/21/2021			04/23/2021 15:31	Yijie Li	2241364
SM 4500 F-C-2011	04/21/2021			04/22/2021 23:34	Dale L. Simmons	2241364
SM 5310 B-2011	04/21/2021			04/26/2021 20:31	Lauren Lees	2241365