

Chemical Analysis Report

WAS-SECT-2021-08-23-02

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

Event Description: **Little River Tribs.**

Request ID: **RQ-2021-08-09-03**

Customer: **WAS-SECT**

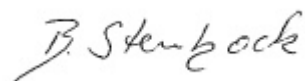
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
2600 Blair Stone Rd
Tallahassee, FL 32399
Attn: Curtis Musson

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Kerry Tate, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

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

Date Certified: 17-SEP-2021 15:48



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: Double Branch at CR159

Collection Date/Time: 08/23/2021 10:46

Field ID: G1WA0091

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2271289	EPA 180.1 Rev. 2.0	Turbidity	28		NTU	P402915	
	EPA 300.0 Rev. 2.1	Chloride	4.7		mg Cl/L	P403164	
		Sulfate	0.68		mg SO4/L	P403166	
	SM 2120 B-2011	Color (true)	230	J	PCU	P402917	
	SM 2320 B-2011	Total Alkalinity	26		mg CaCO3/L	P403059	
	SM 2540 C-2011	TDS	76		mg/L	P403235	
	SM 2540 D-2011	TSS	30		mg/L	P403093	
	SM 4500 F-C-2011	Fluoride	0.061	I	mg F/L	P403063	
2271290	EPA 350.1 Rev. 2.0	Ammonia-N	0.031		mg N/L	P403136	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.5		mg N/L	P403261	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P403070	
	EPA 365.1 Rev. 2.0	Total-P	0.51		mg P/L	P402951	
	SM 5310 B-2011	Organic Carbon	19		mg C/L	P403372	
2271291	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.12		mg P/L	P402911	
2271294	EPA 8321B	2,4-D	0.0020	U	ug/L	P402808	
		Acesulfame K	0.10	U	ug/L	P402974	
		2,4,5-T	0.0040	U	ug/L	P402808	
		AMPA	0.10	U	ug/L	P402974	
		Acetaminophen	0.0080	U	ug/L	P402808	
		Acetamiprid	0.0020	U	ug/L	P402808	
		Endothall	0.25	U	ug/L	P402974	
		Glufosinate	0.10	U	ug/L	P402974	
		Glyphosate	0.10	U	ug/L	P402974	
		Afidopyrophen	0.0020	U	ug/L	P402808	
		Bentazon	8.0E-04	U	ug/L	P402808	
		Sucralose	0.017	I	ug/L	P402974	
		Benzovindiflupyr	0.0020	U	ug/L	P402808	
		Carbamazepine	8.0E-04	U	ug/L	P402808	
		Clothianidin	0.0020	U	ug/L	P402808	
		Dinotefuran	0.0020	U	ug/L	P402808	
		Diuron	0.0020	U	ug/L	P402808	
		Fenuron	0.016	U	ug/L	P402808	
		Fluridone	8.0E-04	U	ug/L	P402808	
		Imazapyr	0.0044	I	ug/L	P402808	MS
		Hydrocodone	0.0020	U	ug/L	P402808	
		Ibuprofen	0.020	U	ug/L	P402808	
		Imidacloprid	0.0020	U	ug/L	P402808	MS
		Linuron	0.0040	U	ug/L	P402808	
		Mandestrobin	0.0020	U	ug/L	P402808	
		MCPP	0.0020	U	ug/L	P402808	
		Naproxen	0.0080	U	ug/L	P402808	
		Primidone	0.0040	UJ	ug/L	P402808	SUR
		Pyraclostrobin	0.0020	U	ug/L	P402808	

Field ID: G1WA0091

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2271294	EPA 8321B	Thiamethoxam	0.0020	U	ug/L	P402808	
		Tolfenpyrad	0.0020	U	ug/L	P402808	
		Triclopyr	0.0040	U	ug/L	P402808	
2271295	EPA 200.7 Rev. 4.4	Calcium	9.77		mg/L	P402888	
		Iron	1.09E+04		ug/L	P402888	
		Magnesium	1.95		mg/L	P402888	
		Manganese	1.02E+03		ug/L	P402888	
		Potassium	1.9		mg/L	P402888	
		Sodium	2.8		mg/L	P402888	
		Strontium	24.4		ug/L	P402888	
		Tin	3.0	U	ug/L	P402888	
		Titanium	3.7		ug/L	P402888	
		Vanadium	3.3	I	ug/L	P402888	
		Zinc	8.2	I	ug/L	P402888	
	EPA 200.8 Rev. 5.4	Aluminum	664		ug/L	P402888	
		Antimony	0.053	I	ug/L	P402888	
		Arsenic	3.09		ug/L	P402888	
		Barium	39.8		ug/L	P402888	
		Beryllium	0.054		ug/L	P402888	
		Boron**	22.9		ug/L	P402888	
		Cadmium	0.025	I	ug/L	P402888	
		Chromium	1.5	I	ug/L	P402888	
		Cobalt	1.24		ug/L	P402888	
		Copper	0.69	I	ug/L	P402888	
		Lead	0.58		ug/L	P402888	
		Molybdenum	0.19	I	ug/L	P402888	
		Nickel	0.62	I	ug/L	P402888	
		Selenium	0.26	I	ug/L	P402888	
		Silver	0.010	U	ug/L	P402888	
		Thallium	0.10	U	ug/L	P402888	
	SM 2340B	Hardness	32.4		mg/L	P402888	

Ref. Method and Comment:

SM 2120 B-2011: The result may be biased high because of matrix interference.

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

EPA 8321B: MS accuracy for bentazon could not be assessed due to high concentration of parameter in the spiked sample. Results confirmed in re-extraction. Refer to the Lab Analysis Report for an explanation of QC Codes.

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0**Batch ID: P402915**

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4**Batch ID: P402888**

Component	Result	Code	Units
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
Strontium	2.0	U	ug/L
Tin	3.0	U	ug/L
Titanium	0.75	U	ug/L
Vanadium	2.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4**Batch ID: P402888**

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Barium	0.20	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
Cobalt	0.020	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Molybdenum	0.15	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: P403164**

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1**Batch ID: P403166**

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P403136

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

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P403261

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

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P403070

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P402951

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P402911

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

Reference Method: EPA 8321B
 Batch ID: P402808

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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P402808

Component	Result	Code	Units
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: EPA 8321B
Batch ID: P402974

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 2120 B-2011
Batch ID: P402917

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P403059

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

Reference Method: SM 2540 C-2011
Batch ID: P403235

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P403093

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P403063

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P403372

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: P402888

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	103		P	85 - 115
Iron	106		P	85 - 115
Magnesium	107		P	85 - 115
Manganese	102		P	85 - 115
Potassium	104		P	85 - 115
Sodium	104		P	85 - 115
Strontium	100		P	85 - 115
Tin	102		P	85 - 115
Titanium	102		P	85 - 115
Vanadium	101		P	85 - 115
Zinc	101		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P402888

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	98.6		P	85 - 115
Antimony	98.8		P	85 - 115
Arsenic	96.6		P	85 - 115
Barium	100		P	85 - 115
Beryllium	94.5		P	85 - 115
Boron	99.0		P	85 - 115
Cadmium	97.4		P	85 - 115
Chromium	97.2		P	85 - 115
Cobalt	96.0		P	85 - 115
Copper	96.8		P	85 - 115
Lead	97.2		P	85 - 115
Molybdenum	96.2		P	85 - 115
Nickel	96.4		P	85 - 115
Selenium	94.5		P	85 - 115
Silver	100		P	85 - 115
Thallium	99.2		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P403164

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

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P403166

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

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P403136

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P403261

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P403070

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: P402951

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P402911

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

Reference Method: EPA 8321B
Batch ID: P402808

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	82.9		P	40 - 150
2,4,5-T	87.1		P	40 - 150
Acetaminophen	75.1		P	30 - 150
Acetamiprid	80.5		P	40 - 150
Afidopyropen	65.6		P	40 - 150
Bentazon	92.0		P	30 - 150
Benzovindiflupyr	78.8		P	40 - 150
Carbamazepine	77.0		P	40 - 150
Clothianidin	74.8		P	40 - 150
Dinotefuran	75.8		P	40 - 150
Diuron	96.1		P	40 - 150
Fenuron	85.3		P	40 - 150
Fluridone	81.8		P	40 - 150
Hydrocodone	77.3		P	40 - 150
Ibuprofen	71.7		P	40 - 150
Imazapyr	91.6		P	40 - 150
Imidacloprid	85.0		P	40 - 150
Linuron	79.4		P	40 - 150
Mandestrobin	77.6		P	40 - 150
MCPP	87.3		P	40 - 150
Naproxen	58.1		P	40 - 150
Primidone	87.9		P	40 - 150
Pyraclostrobin	66.5		P	40 - 150
Thiamethoxam	78.0		P	40 - 150
Tolfenpyrad	35.0		P	30 - 150
Triclopyr	76.0		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P402974

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	78.6		P	40 - 150
AMPA	82.4		P	40 - 150
Endothall	68.1		P	40 - 150
Glufosinate	105		P	40 - 150
Glyphosate	107		P	40 - 150
Sucralose	90.2		P	40 - 150

Reference Method: SM 2120 B-2011

Batch ID: P402917

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	101		P	85 - 115

Reference Method: SM 2320 B-2011

Batch ID: P403059

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	94 - 106

Reference Method: SM 4500 F-C-2011

Batch ID: P403063

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	100		P	93 - 104

Reference Method: SM 5310 B-2011

Batch ID: P403372

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.8		P	85 - 115

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P402888

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2270915	Calcium	102		P	80 - 120
2270915	Iron	110	111	P/P	80 - 120
2270915	Magnesium	110	113	P/P	80 - 120
2270915	Manganese	102	104	P/P	80 - 120
2270915	Potassium	110	111	P/P	80 - 120
2270915	Sodium	101		P	80 - 120
2270915	Strontium	102	102	P/P	80 - 120
2270915	Tin	99.7	102	P/P	80 - 120
2270915	Titanium	104	106	P/P	80 - 120
2270915	Vanadium	104	107	P/P	80 - 120
2270915	Zinc	105	107	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P402888

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2270915	Aluminum	93.3	95.1	P/P	80 - 120
2270915	Antimony	100	100	P/P	80 - 120
2270915	Arsenic	98.4	98.5	P/P	80 - 120
2270915	Barium	99.9	101	P/P	80 - 120
2270915	Beryllium	97.6	95.2	P/P	80 - 120
2270915	Boron	97.1	96.3	P/P	80 - 120
2270915	Cadmium	101	98.5	P/P	80 - 120
2270915	Chromium	97.6	98.1	P/P	80 - 120
2270915	Cobalt	94.4	95.5	P/P	80 - 120
2270915	Copper	96.3	96.1	P/P	80 - 120
2270915	Lead	98.5	99.3	P/P	80 - 120
2270915	Molybdenum	98.3	100	P/P	80 - 120
2270915	Nickel	97.0	96.9	P/P	80 - 120
2270915	Selenium	97.3	96.8	P/P	80 - 120
2270915	Silver	97.9	99.9	P/P	80 - 120
2270915	Thallium	104	105	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P403164

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2271098	Chloride	102		P	90 - 110
2271402	Chloride	100		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P403166

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2271098	Sulfate	101		P	90 - 110
2271402	Sulfate	98.3		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P403136

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2271345	Ammonia-N	96.4	96.2	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P403261

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2271142	Kjeldahl Nitrogen	99.4	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P403070

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2271099	NO2NO3-N	99.0	98.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P402951

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2271365	Total-P	108	109	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P402911

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2271366	O-Phosphate-P	101	101	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P402808

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2270486	2,4-D	107	104	P/P	40 - 150
2270486	2,4,5-T	100	99.1	P/P	40 - 150
2270486	Acetaminophen	85.7	86.3	P/P	30 - 150
2270486	Acetamiprid	94.1	94.9	P/P	40 - 150
2270486	Afidopyropen	80.2	67.1	P/P	40 - 150
2270486	Benzovindiflupyr	80.8	89.7	P/P	40 - 150
2270486	Carbamazepine	89.4	96.8	P/P	40 - 150
2270486	Clothianidin	114	102	P/P	40 - 150
2270486	Dinotefuran	101	108	P/P	40 - 150
2270486	Diuron	78.5	74.7	P/P	40 - 150
2270486	Fenuron	88.6	88.4	P/P	40 - 150
2270486	Fluridone	84.1	85.0	P/P	40 - 150
2270486	Hydrocodone	89.9	88.8	P/P	40 - 150
2270486	Ibuprofen	84.5	70.1	P/P	40 - 150
2270486	Imazapyr	157	133	F/P	40 - 150
2270486	Imidacloprid	142	151	P/F	40 - 150
2270486	Linuron	76.2	85.8	P/P	40 - 150
2270486	Mandestrobin	83.6	84.6	P/P	40 - 150
2270486	MCPP	101	104	P/P	40 - 150
2270486	Naproxen	76.5	80.5	P/P	40 - 150
2270486	Primidone	92.5	91.2	P/P	40 - 150
2270486	Pyraclostrobin	77.8	81.9	P/P	40 - 150
2270486	Thiamethoxam	127	127	P/P	40 - 150
2270486	Tolfenpyrad	50.0	55.1	P/P	30 - 150
2270486	Triclopyr	86.8	92.8	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P402974

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2271284	Acesulfame K	56.7	57.9	P/P	40 - 150
2271284	AMPA	91.0	91.7	P/P	40 - 150
2271284	Endothall	101	103	P/P	40 - 150
2271284	Glufosinate	107	106	P/P	40 - 150
2271284	Glyphosate	108	110	P/P	40 - 150
2271284	Sucralose	93.6	94.0	P/P	40 - 150

Reference Method: SM 4500 F-C-2011
Batch ID: P403063

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2271671	Fluoride	99.2	98.7	P/P	92 - 107

Reference Method: SM 5310 B-2011
Batch ID: P403372

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2271056	Organic Carbon	97.0	96.2	P/P	85 - 115

Quality Assurance Report

Precision

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P402915

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2271347	Turbidity	0.0	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P402888

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2270915	Calcium	1.50	Spike	P	0 - 20
2270915	Iron	1.32	Spike	P	0 - 20
2270915	Magnesium	1.41	Spike	P	0 - 20
2270915	Manganese	2.00	Spike	P	0 - 20
2270915	Potassium	0.893	Spike	P	0 - 20
2270915	Sodium	1.30	Spike	P	0 - 20
2270915	Strontium	0.560	Spike	P	0 - 20
2270915	Tin	2.08	Spike	P	0 - 20
2270915	Titanium	1.99	Spike	P	0 - 20
2270915	Vanadium	2.15	Spike	P	0 - 20
2270915	Zinc	1.99	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P402888

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2270915	Aluminum	1.15	Spike	P	0 - 20
2270915	Antimony	0.0361	Spike	P	0 - 20
2270915	Arsenic	0.108	Spike	P	0 - 20
2270915	Barium	1.27	Spike	P	0 - 20
2270915	Beryllium	2.25	Spike	P	0 - 20
2270915	Boron	0.678	Spike	P	0 - 20
2270915	Cadmium	2.24	Spike	P	0 - 20
2270915	Chromium	0.522	Spike	P	0 - 20
2270915	Cobalt	1.09	Spike	P	0 - 20
2270915	Copper	0.149	Spike	P	0 - 20
2270915	Lead	0.821	Spike	P	0 - 20
2270915	Molybdenum	1.81	Spike	P	0 - 20
2270915	Nickel	0.117	Spike	P	0 - 20
2270915	Selenium	0.420	Spike	P	0 - 20
2270915	Silver	1.97	Spike	P	0 - 20
2270915	Thallium	0.375	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P403164

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2271098	Chloride	0.864	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P403166

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2271098	Sulfate	1.14	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P403136

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2271345	Ammonia-N	0.187	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P403261

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2271142	Kjeldahl Nitrogen	4.09	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P403070

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2271099	NO2NO3-N	0.506	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P402951

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2271365	Total-P	0.173	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P402911

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2271366	O-Phosphate-P	0.199	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P402808

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2270486	2,4-D	2.53	Spike	P	0 - 30
2270486	2,4,5-T	1.19	Spike	P	0 - 30
2270486	Acetaminophen	0.572	Spike	P	0 - 30
2270486	Acetamiprid	0.839	Spike	P	0 - 30
2270486	Afidopyropen	17.7	Spike	P	0 - 30
2270486	Bentazon	4.63	Spike	P	0 - 30
2270486	Benzovindiflupyr	10.4	Spike	P	0 - 30
2270486	Carbamazepine	7.90	Spike	P	0 - 30
2270486	Clothianidin	10.7	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8321B

Batch ID: P402808

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2270486	Dinotefuran	5.97	Spike	P	0 - 30
2270486	Diuron	4.62	Spike	P	0 - 30
2270486	Fenuron	0.216	Spike	P	0 - 30
2270486	Fluridone	1.02	Spike	P	0 - 30
2270486	Hydrocodone	1.23	Spike	P	0 - 30
2270486	Ibuprofen	18.7	Spike	P	0 - 30
2270486	Imazapyr	11.1	Spike	P	0 - 30
2270486	Imidacloprid	4.03	Spike	P	0 - 30
2270486	Linuron	11.8	Spike	P	0 - 30
2270486	Mandestrobin	1.20	Spike	P	0 - 30
2270486	MCPP	2.30	Spike	P	0 - 30
2270486	Naproxen	5.06	Spike	P	0 - 30
2270486	Primidone	1.46	Spike	P	0 - 30
2270486	Pyraclostrobin	5.05	Spike	P	0 - 30
2270486	Thiamethoxam	0.0550	Spike	P	0 - 30
2270486	Tolfenpyrad	9.75	Spike	P	0 - 30
2270486	Triclopyr	6.74	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P402974

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2271284	Acesulfame K	2.14	Spike	P	0 - 30
2271284	AMPA	0.789	Spike	P	0 - 30
2271284	Endothall	2.32	Spike	P	0 - 30
2271284	Glufosinate	0.745	Spike	P	0 - 30
2271284	Glyphosate	2.50	Spike	P	0 - 30
2271284	Sucralose	0.483	Spike	P	0 - 30

Reference Method: SM 2120 B-2011

Batch ID: P402917

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2271364	Color (true)	1.50	Sample	P	0 - 20

Reference Method: SM 2320 B-2011

Batch ID: P403059

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2271671	Total Alkalinity	0.0215	Sample	P	0 - 5.2

Reference Method: SM 2540 C-2011

Batch ID: P403235

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2271350	TDS	5.41	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 4500 F-C-2011
Batch ID: P403063

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2271671	Fluoride	0.469	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
Batch ID: P403372

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2271056	Organic Carbon	0.421	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2271294

Field Sample ID: G1WA0091

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	102	P	30 - 160
EPA 8321B	Acetaminophen-d4	57.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	78.0	P	30 - 160
EPA 8321B	Diuron-d6	78.0	P	30 - 160
EPA 8321B	Endothall-d6	110	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	94.8	P	30 - 160
EPA 8321B	Ibuprofen-d3	71.0	P	30 - 160
EPA 8321B	Primidone-d5	27.0	F	30 - 160
EPA 8321B	Sucralose-d6	111	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A107438

Included Lab Sample IDs: 2271291

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

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A107441

Included Lab Sample IDs: 2271289

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	102	P/P	95 - 105

Reference Method: SM 2120 B-2011

Run ID: A107442

Included Lab Sample IDs: 2271289

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	103	P/P	90 - 115

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A107449

Included Lab Sample IDs: 2271289

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.5	99.4	P/P	90 - 110
Sulfate	99.7	99.4	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A107467

Included Lab Sample IDs: 2271295

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	99.3	99.6	P/P	90 - 110
Antimony	98.9	99.3	P/P	90 - 110
Arsenic	98.5	97.4	P/P	90 - 110
Barium	99.2	99.4	P/P	90 - 110
Beryllium	96.1	97.6	P/P	90 - 110
Boron	97.9	96.9	P/P	90 - 110
Cadmium	98.7	98.8	P/P	90 - 110
Chromium	98.4	97.0	P/P	90 - 110
Cobalt	96.2	93.8	P/P	90 - 110
Copper	98.0	95.7	P/P	90 - 110
Lead	96.6	97.6	P/P	90 - 110
Molybdenum	98.0	97.4	P/P	90 - 110
Nickel	97.5	95.1	P/P	90 - 110
Selenium	98.1	98.4	P/P	90 - 110
Silver	96.1	96.1	P/P	90 - 110
Thallium	99.3	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A107485

Included Lab Sample IDs: 2271290

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
-----------	---------	---------	------------	----------------

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A107485

Included Lab Sample IDs: 2271290

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

Reference Method: EPA 8321B

Run ID: A107499

Included Lab Sample IDs: 2271294

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	128	96.4	P/P	50 - 150
2,4,5-T	97.6	116	P/P	50 - 150
Acetaminophen	108	113	P/P	60 - 160
Acetamiprid	96.7	108	P/P	50 - 150
Afidopyropen	96.9	120	P/P	50 - 150
Bentazon	87.9	97.4	P/P	50 - 160
Benzovindiflupyr	99.4	98.1	P/P	50 - 150
Carbamazepine	98.3	106	P/P	60 - 150
Clothianidin	104	117	P/P	60 - 150
Dinotefuran	107	108	P/P	50 - 150
Diuron	101	118	P/P	60 - 160
Fenuron	97.1	103	P/P	60 - 150
Fluridone	102	100	P/P	60 - 160
Hydrocodone	98.8	103	P/P	60 - 150
Ibuprofen	105	90.4	P/P	50 - 160
Imazapyr	96.8	111	P/P	50 - 150
Imidacloprid	94.8	123	P/P	60 - 150
Linuron	84.4	103	P/P	60 - 150
Mandestrobin	106	110	P/P	50 - 150
MCPP	92.6	98.2	P/P	50 - 150
Naproxen	90.6	148	P/P	50 - 160
Primidone	95.0	131	P/P	60 - 150
Pyraclostrobin	103	116	P/P	60 - 150
Thiamethoxam	103	113	P/P	50 - 150
Tolfenpyrad	98.3	105	P/P	60 - 150
Triclopyr	93.5	94.9	P/P	50 - 150

Reference Method: SM 2320 B-2011

Run ID: A107502

Included Lab Sample IDs: 2271289

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.8	101	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A107502

Included Lab Sample IDs: 2271289

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A107506

Included Lab Sample IDs: 2271290

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

Reference Method: EPA 8321B

Run ID: A107519

Included Lab Sample IDs: 2271294

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	78.1		P	60 - 160
Glufosinate	99.7		P	60 - 160
Glyphosate	101		P	60 - 160

Reference Method: EPA 8321B

Run ID: A107530

Included Lab Sample IDs: 2271294

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	61.3	65.2	P/P	60 - 160
Endothall	69.1	73.4	P/P	60 - 160
Sucralose	94.7	90.6	P/P	60 - 160

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A107531

Included Lab Sample IDs: 2271295

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	98.3	99.6	P/P	90 - 110
Iron	97.4	98.5	P/P	90 - 110
Magnesium	97.7	98.4	P/P	90 - 110
Manganese	101	102	P/P	90 - 110
Potassium	97.9	97.2	P/P	90 - 110
Sodium	98.7	97.8	P/P	90 - 110
Strontium	100	99.3	P/P	90 - 110
Tin	99.8	102	P/P	90 - 110
Titanium	99.5	98.9	P/P	90 - 110
Vanadium	99.2	98.8	P/P	90 - 110
Zinc	101	103	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A107544

Included Lab Sample IDs: 2271290

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.3	97.7	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A107619

Included Lab Sample IDs: 2271290

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.4	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-2011

Run ID: A107644

Included Lab Sample IDs: 2271290

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.0	98.0	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					0.0	
EPA 200.7 Rev. 4.4	Calcium	103	102				1.50
	Iron	106	110	111			1.32
	Magnesium	107	110	113			1.41
	Manganese	102	102	104			2.00
	Potassium	104	110	111			0.893
	Sodium	104	101				1.30
	Strontium	100	102	102			0.560
	Tin	102	99.7	102			2.08
	Titanium	102	104	106			1.99
	Vanadium	101	104	107			2.15
	Zinc	101	105	107			1.99
EPA 200.8 Rev. 5.4	Aluminum	98.6	93.3	95.1			1.15
	Antimony	98.8	100	100			0.0361
	Arsenic	96.6	98.4	98.5			0.108
	Barium	100	99.9	101			1.27
	Beryllium	94.5	97.6	95.2			2.25
	Boron	99.0	97.1	96.3			0.678
	Cadmium	97.4	101	98.5			2.24
	Chromium	97.2	97.6	98.1			0.522
	Cobalt	96.0	94.4	95.5			1.09
	Copper	96.8	96.3	96.1			0.149
	Lead	97.2	98.5	99.3			0.821
	Molybdenum	96.2	98.3	100			1.81
	Nickel	96.4	97.0	96.9			0.117
	Selenium	94.5	97.3	96.8			0.420
	Silver	100	97.9	99.9			1.97
	Thallium	99.2	104	105			0.375
EPA 300.0 Rev. 2.1	Chloride	102	102	100		0.864	
	Sulfate	104	98.3	101		1.14	
EPA 350.1 Rev. 2.0	Ammonia-N	98.4	96.4	96.2			0.187
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.6	99.4	104			4.09
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	99.5	99.0	98.5			0.506
EPA 365.1 Rev. 2.0	Total-P	104	108	109			0.173
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	100	101	101			0.199
EPA 8321B	2,4-D	82.9	107	104			2.53
	2,4,5-T	87.1	100	99.1			1.19
	Acesulfame K	78.6	56.7	57.9			2.14
	Acetaminophen	75.1	85.7	86.3			0.572
	Acetamiprid	80.5	94.1	94.9			0.839
	Afidopyropen	65.6	80.2	67.1			17.7
	AMPA	82.4	91.0	91.7			0.789
	Bentazon	92.0					4.63
	Benzovindiflupyr	78.8	80.8	89.7			10.4
	Carbamazepine	77.0	89.4	96.8			7.90
	Clothianidin	74.8	114	102			10.7
	Dinotefuran	75.8	101	108			5.97
	Diuron	96.1	78.5	74.7			4.62
	Endothall	68.1	101	103			2.32
	Fenuron	85.3	88.6	88.4			0.216
	Fluridone	81.8	84.1	85.0			1.02
	Glufosinate	105	107	106			0.745
	Glyphosate	107	108	110			2.50
	Hydrocodone	77.3	89.9	88.8			1.23

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8321B	Ibuprofen	71.7	84.5	70.1		18.7
	Imazapyr	91.6	157	133		11.1
	Imidacloprid	85.0	142	151		4.03
	Linuron	79.4	76.2	85.8		11.8
	Mandestrobin	77.6	83.6	84.6		1.20
	MCPP	87.3	101	104		2.30
	Naproxen	58.1	76.5	80.5		5.06
	Primidone	87.9	92.5	91.2		1.46
	Pyraclostrobin	66.5	77.8	81.9		5.05
	Sucralose	90.2	93.6	94.0		0.483
	Thiamethoxam	78.0	127	127		0.0550
	Tolfenpyrad	35.0	50.0	55.1		9.75
	Triclopyr	76.0	86.8	92.8		6.74
SM 2120 B-2011	Color (true)	101			1.50	
SM 2320 B-2011	Total Alkalinity	103			0.0215	
SM 2540 C-2011	TDS				5.41	
SM 4500 F-C-2011	Fluoride	100	99.2	98.7		0.469
SM 5310 B-2011	Organic Carbon	96.8	97.0	96.2		0.421

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2271289
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2271295
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2271295
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2271289
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2271289
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2271290
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2271290
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2271290
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2271290
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2271291
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2271294
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2271289
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2271289
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2271295
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2271289
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2271289
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2271289
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2271290

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	08/23/2021			08/24/2021 14:59	Sarah A Nixon	2271289
EPA 200.7 Rev. 4.4	08/23/2021	08/24/2021 14:10	Elliott D. Healy	08/29/2021 14:25	Josef B Mick	2271295
EPA 200.8 Rev. 5.4	08/23/2021	08/24/2021 14:10	Elliott D. Healy	08/25/2021 19:59	Alexander Thompson	2271295
EPA 300.0 Rev. 2.1	08/23/2021			08/27/2021 21:52	Lipi Saha	2271289
EPA 350.1 Rev. 2.0	08/23/2021			08/30/2021 11:59	Ping Hua	2271290
EPA 351.2 Rev. 2.0	08/23/2021	09/01/2021 12:09	Benjamin T. Nordmann	09/02/2021 12:45	Alexandra J Mattheus	2271290
EPA 353.2 Rev. 2.0	08/23/2021			08/27/2021 10:45	Beverly Y. Sanders	2271290
EPA 365.1 Rev. 2.0	08/23/2021	08/25/2021 14:45	Simonne.V. Calhoun	08/26/2021 15:23	Shengyu Ding	2271290
EPA 365.1 Rev. 2.0 dissolved	08/23/2021			08/24/2021 14:40	James L Waggeberby	2271291
EPA 8321B	08/23/2021	08/24/2021 09:00	Hoor Shaik	08/26/2021 21:52	Juyoung Kim	2271294
	08/23/2021	08/27/2021 09:00	Juyoung Kim	08/27/2021 10:45	Juyoung Kim	2271294
	08/23/2021	08/27/2021 09:00	Juyoung Kim	08/27/2021 23:41	Juyoung Kim	2271294
SM 2120 B-2011	08/23/2021			08/24/2021 16:07	Sarah A Nixon	2271289
SM 2320 B-2011	08/23/2021			08/26/2021 18:12	Dale L. Simmons	2271289
SM 2340B	08/23/2021			08/29/2021 14:25	Josef B Mick	2271295
SM 2540 C-2011	08/23/2021			08/25/2021 14:16	Yijie Li	2271289
SM 2540 D-2011	08/23/2021			08/25/2021 14:16	Yijie Li	2271289
SM 4500 F-C-2011	08/23/2021			08/26/2021 18:12	Dale L. Simmons	2271289
SM 5310 B-2011	08/23/2021			09/03/2021 02:11	Touraj Touran	2271290