

Chemical Analysis Report

SO-DIST-2021-07-01-02

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

Event Description: **SMP_2021_BuckLake**
Request ID: **RQ-2021-06-28-54**
Customer: **SO-DIST**
Project ID: **SMP**

Send Reports to:
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FLDEP South District Office
2295 Victoria Ave. Suite 364
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Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 23-JUL-2021 11:07

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line above the first name.

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: Buck Lake @ Middle

Collection Date/Time: 06/30/2021 09:20

Field ID: G4SD0158

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2258566	EPA 180.1 Rev. 2.0	Turbidity	0.40		NTU	P400482	
	EPA 300.0 Rev. 2.1	Chloride	16		mg Cl/L	P400720	
		Sulfate	55		mg SO4/L	P400722	
	SM 2120 B-2011	Color (true)	3.7	I	PCU	P400486	
	SM 2320 B-2011	Total Alkalinity	17	A	mg CaCO3/L	P400782	
	SM 2540 C-2011	TDS	184		mg/L	P400832	
	SM 2540 D-2011	TSS	2	I	mg/L	P400835	
	SM 4500 F-C-2011	Fluoride	0.088	I	mg F/L	P400786	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.021		mg N/L	P401323	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.38		mg N/L	P400638	
2258567	EPA 353.2 Rev. 2.0	NO2NO3-N	11		mg N/L	P400513	
	EPA 365.1 Rev. 2.0	Total-P	0.004	I	mg P/L	P400577	
	SM 5310 B-2011	Organic Carbon	3.3		mg C/L	P400823	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.004	U	mg P/L	P400465	
	dissolved						
2258570	EPA 8321B	2,4-D	0.0020	U	ug/L	P400469	
		Acesulfame K	0.10	U	ug/L	P400441	
		2,4,5-T	0.0040	U	ug/L	P400469	
		AMPA	0.10	U	ug/L	P400441	
		Acetaminophen	0.0080	U	ug/L	P400469	
		Acetamiprid	0.0020	U	ug/L	P400469	
		Endothall	0.25	U	ug/L	P400441	
		Glufosinate	0.10	U	ug/L	P400441	
		Glyphosate	0.10	U	ug/L	P400441	
		Afidopyrophen	0.0020	U	ug/L	P400469	
		Bentazon	8.0E-04	U	ug/L	P400469	
		Sucralose	0.010	U	ug/L	P400441	
		Benzovindiflupyr	0.0020	U	ug/L	P400469	
		Carbamazepine	8.0E-04	U	ug/L	P400469	
		Clothianidin	0.046		ug/L	P400469	
		Dinotefuran	0.0020	U	ug/L	P400469	
		Diuron	0.029		ug/L	P400469	
		Fenuron	0.016	U	ug/L	P400469	
		Fluridone	8.0E-04	U	ug/L	P400469	
		Imazapyr	0.0040	U	ug/L	P400469	
		Hydrocodone	0.0020	U	ug/L	P400469	
		Ibuprofen	0.020	U	ug/L	P400469	
		Imidacloprid	0.13		ug/L	P400469	MS
		Linuron	0.0040	U	ug/L	P400469	
		Mandestrobin	0.0020	U	ug/L	P400469	
		MCP	0.0020	U	ug/L	P400469	
		Naproxen	0.0080	U	ug/L	P400469	
		Primidone	0.0040	U	ug/L	P400469	
		Pyraclostrobin	0.0020	U	ug/L	P400469	

Field ID: G4SD0158

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2258570	EPA 8321B	Thiamethoxam	0.049		ug/L	P400469	MS
		Tolfenpyrad	0.0020	U	ug/L	P400469	
		Triclopyr	0.0040	U	ug/L	P400469	
2258571	EPA 200.7 Rev. 4.4	Barium	9.9		ug/L	P400630	
		Calcium	29.4		mg/L	P400630	
		Iron	30	U	ug/L	P400630	
		Magnesium	9.96		mg/L	P400630	
		Manganese	3.2	I	ug/L	P400630	
		Potassium	19.2		mg/L	P400630	
		Sodium	4.5		mg/L	P400630	
		Zinc	19	I	ug/L	P400630	
	EPA 200.8 Rev. 5.4	Aluminum	175		ug/L	P400630	
		Antimony	0.77		ug/L	P400630	
		Arsenic	0.23		ug/L	P400630	
		Beryllium	0.010	U	ug/L	P400630	
		Boron**	138		ug/L	P400630	
		Cadmium	0.113		ug/L	P400630	
		Chromium	0.66	I	ug/L	P400630	
		Copper	2.00		ug/L	P400630	
		Lead	0.20	U	ug/L	P400630	
		Nickel	1.2	I	ug/L	P400630	
		Selenium	0.83		ug/L	P400630	
		Silver	0.010	U	ug/L	P400630	
		Thallium	0.10	U	ug/L	P400630	
	SM 2340B	Hardness	114		mg/L	P400630	

Ref. Method and Comment:

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

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

EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for potassium are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P400482

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P400630

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: P400630

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: P400720

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P400722

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P401323

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: P400638

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P400513

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P400577

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P400465

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

Reference Method: EPA 8321B
Batch ID: P400441

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: P400469

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: P400469

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: P400486

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011

Batch ID: P400782

Component	Result	Code	Units
Total Alkalinity	0.72	I	mg CaCO3/L

Reference Method: SM 2540 C-2011

Batch ID: P400832

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011

Batch ID: P400835

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011

Batch ID: P400786

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011

Batch ID: P400823

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: P400630

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	104		P	85 - 115
Calcium	100		P	85 - 115
Iron	112		P	85 - 115
Magnesium	101		P	85 - 115
Manganese	102		P	85 - 115
Potassium	99.6		P	85 - 115
Sodium	102		P	85 - 115
Zinc	103		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P400630

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	113		P	85 - 115
Antimony	115		P	85 - 115
Arsenic	111		P	85 - 115
Beryllium	109		P	80 - 120
Boron	114		P	85 - 115
Cadmium	110		P	85 - 115
Chromium	108		P	85 - 115
Copper	110		P	85 - 115
Lead	109		P	85 - 115
Nickel	110		P	85 - 115
Selenium	109		P	85 - 115
Silver	114		P	85 - 115
Thallium	110		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P400720

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	96.6		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P400722

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	96.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P401323

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P400638

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	105		P	90 - 110

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P400513

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

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P400577

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P400465

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

Reference Method: EPA 8321B

Batch ID: P400441

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	85.0		P	40 - 150
AMPA	87.6		P	40 - 150
Endothall	73.5		P	40 - 150
Glufosinate	83.7		P	40 - 150
Glyphosate	89.3		P	40 - 150
Sucralose	73.7		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P400469

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	102		P	40 - 150
2,4,5-T	88.8		P	40 - 150
Acetaminophen	91.0		P	30 - 150
Acetamiprid	75.9		P	40 - 150
Afidopyropen	78.3		P	40 - 150
Bentazon	115		P	30 - 150
Benzovindiflupyr	83.0		P	40 - 150
Carbamazepine	90.2		P	40 - 150
Clothianidin	88.8		P	40 - 150
Dinotefuran	82.7		P	40 - 150
Diuron	73.3		P	40 - 150
Fenuron	87.3		P	40 - 150
Fluridone	87.1		P	40 - 150
Hydrocodone	81.5		P	40 - 150
Ibuprofen	85.2		P	40 - 150
Imazapyr	92.9		P	40 - 150
Imidacloprid	94.3		P	40 - 150
Linuron	64.3		P	40 - 150
Mandestrobin	79.4		P	40 - 150
MCPP	113		P	40 - 150
Naproxen	123		P	40 - 150
Primidone	62.4		P	40 - 150
Pyraclostrobin	80.5		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P400469

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Thiamethoxam	93.4		P	40 - 150
Tolfenpyrad	50.5		P	30 - 150
Triclopyr	87.2		P	40 - 150

Reference Method: SM 2120 B-2011
Batch ID: P400486

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.6		P	85 - 115

Reference Method: SM 2320 B-2011
Batch ID: P400782

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	94 - 106

Reference Method: SM 4500 F-C-2011
Batch ID: P400786

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

Reference Method: SM 5310 B-2011
Batch ID: P400823

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.4		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P400630

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2258571	Barium	108	95.8	P/P	80 - 120
2258571	Calcium	80.5		P	80 - 120
2258571	Iron	118	107	P/P	80 - 120
2258571	Magnesium	84.3		P	80 - 120
2258571	Manganese	106	94.6	P/P	80 - 120
2258571	Sodium	90.1		P	80 - 120
2258571	Zinc	105	92.3	P/P	80 - 120
2259780	Barium	101		P	80 - 120
2259780	Calcium	101		P	80 - 120
2259780	Iron	114		P	80 - 120
2259780	Magnesium	106		P	80 - 120
2259780	Manganese	99.5		P	80 - 120
2259780	Potassium	115		P	80 - 120
2259780	Sodium	109		P	80 - 120
2259780	Zinc	101		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P400630

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2258571	Aluminum	110	112	P/P	80 - 120
2258571	Antimony	114	117	P/P	80 - 120
2258571	Arsenic	109	111	P/P	80 - 120
2258571	Beryllium	110	111	P/P	80 - 120
2258571	Boron	112	114	P/P	80 - 120
2258571	Cadmium	107	109	P/P	80 - 120
2258571	Chromium	103	105	P/P	80 - 120
2258571	Copper	105	105	P/P	80 - 120
2258571	Lead	106	109	P/P	80 - 120
2258571	Nickel	104	106	P/P	80 - 120
2258571	Selenium	104	107	P/P	80 - 120
2258571	Silver	109	108	P/P	80 - 120
2258571	Thallium	110	113	P/P	80 - 120
2259780	Aluminum	104		P	80 - 120
2259780	Antimony	111		P	80 - 120
2259780	Arsenic	107		P	80 - 120
2259780	Beryllium	107		P	80 - 120
2259780	Boron	108		P	80 - 120
2259780	Cadmium	106		P	80 - 120
2259780	Chromium	102		P	80 - 120
2259780	Copper	101		P	80 - 120
2259780	Lead	106		P	80 - 120
2259780	Nickel	105		P	80 - 120
2259780	Selenium	104		P	80 - 120
2259780	Silver	108		P	80 - 120
2259780	Thallium	112		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P400720

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2258506	Chloride	97.6		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P400720

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2258641	Chloride	96.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P400722

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2258641	Sulfate	95.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P401323

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2260508	Ammonia-N	98.2	91.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P400638

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2258567	Kjeldahl Nitrogen	92.4	93.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P400513

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2258500	NO2NO3-N	100	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P400465

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2258568	O-Phosphate-P	94.7	95.6	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P400441

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2258570	Acesulfame K	87.0	84.0	P/P	40 - 150
2258570	AMPA	80.5	82.7	P/P	40 - 150
2258570	Endothall	77.7	80.3	P/P	40 - 150
2258570	Glufosinate	85.7	95.5	P/P	40 - 150
2258570	Glyphosate	87.3	87.9	P/P	40 - 150
2258570	Sucralose	72.2	74.8	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P400469

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2258016	2,4-D	111	115	P/P	40 - 150
2258016	2,4,5-T	118	102	P/P	40 - 150
2258016	Acetaminophen	125	106	P/P	30 - 150
2258016	Acetamiprid	96.2	76.6	P/P	40 - 150
2258016	Afidopyropen	43.0	40.8	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P400469

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2258016	Bentazon	88.1	84.4	P/P	30 - 150
2258016	Benzovindiflupyr	80.1	64.9	P/P	40 - 150
2258016	Carbamazepine	105	98.4	P/P	40 - 150
2258016	Clothianidin	125	117	P/P	40 - 150
2258016	Dinotefuran	127	105	P/P	40 - 150
2258016	Diuron	87.6	80.3	P/P	40 - 150
2258016	Fenuron	90.1	84.1	P/P	40 - 150
2258016	Fluridone	84.7	76.1	P/P	40 - 150
2258016	Hydrocodone	118	106	P/P	40 - 150
2258016	Ibuprofen	75.0	81.1	P/P	40 - 150
2258016	Imazapyr	149	128	P/P	40 - 150
2258016	Imidacloprid	206	191	F/F	40 - 150
2258016	Linuron	86.5	74.3	P/P	40 - 150
2258016	Mandestrobin	86.5	81.5	P/P	40 - 150
2258016	MCP	131	107	P/P	40 - 150
2258016	Naproxen	131	128	P/P	40 - 150
2258016	Primidone	98.1	104	P/P	40 - 150
2258016	Pyraclostrobin	76.2	67.4	P/P	40 - 150
2258016	Thiamethoxam	174	153	F/F	40 - 150
2258016	Tolfenpyrad	58.5	53.5	P/P	30 - 150
2258016	Triclopyr	119	110	P/P	40 - 150

Reference Method: SM 4500 F-C-2011

Batch ID: P400786

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2258566	Fluoride	99.4	98.8	P/P	92 - 107

Reference Method: SM 5310 B-2011

Batch ID: P400823

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2258555	Organic Carbon	101	102	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P400482

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2258548	Turbidity	0.396	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P400630

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2258571	Barium	11.4	Spike	P	0 - 20
2258571	Calcium	11.0	Spike	P	0 - 20
2258571	Iron	9.76	Spike	P	0 - 20
2258571	Magnesium	9.43	Spike	P	0 - 20
2258571	Manganese	11.1	Spike	P	0 - 20
2258571	Potassium	5.41	Spike	P	0 - 20
2258571	Sodium	10.2	Spike	P	0 - 20
2258571	Zinc	12.1	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P400630

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2258571	Aluminum	1.96	Spike	P	0 - 20
2258571	Antimony	2.26	Spike	P	0 - 20
2258571	Arsenic	1.60	Spike	P	0 - 20
2258571	Beryllium	0.278	Spike	P	0 - 20
2258571	Boron	0.937	Spike	P	0 - 20
2258571	Cadmium	1.87	Spike	P	0 - 20
2258571	Chromium	1.23	Spike	P	0 - 20
2258571	Copper	0.488	Spike	P	0 - 20
2258571	Lead	2.43	Spike	P	0 - 20
2258571	Nickel	1.73	Spike	P	0 - 20
2258571	Selenium	2.80	Spike	P	0 - 20
2258571	Silver	0.380	Spike	P	0 - 20
2258571	Thallium	2.73	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P400720

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2258506	Chloride	0.669	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P401323

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2260508	Ammonia-N	4.59	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P400638

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2258567	Kjeldahl Nitrogen	0.932	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P400513

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2258500	NO2NO3-N	0.496	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P400577

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2258642	Total-P	1.04	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P400465

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2258568	O-Phosphate-P	0.946	Spike	P	0 - 20

Reference Method: EPA 8321B

Batch ID: P400441

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2258570	Acesulfame K	3.53	Spike	P	0 - 30
2258570	AMPA	2.70	Spike	P	0 - 30
2258570	Endothall	3.17	Spike	P	0 - 30
2258570	Glufosinate	10.9	Spike	P	0 - 30
2258570	Glyphosate	0.726	Spike	P	0 - 30
2258570	Sucralose	3.61	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P400469

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2258016	2,4-D	3.51	Spike	P	0 - 30
2258016	2,4,5-T	15.0	Spike	P	0 - 30
2258016	Acetaminophen	15.9	Spike	P	0 - 30
2258016	Acetamiprid	22.6	Spike	P	0 - 30
2258016	Afidopyropen	5.24	Spike	P	0 - 30
2258016	Bentazon	4.36	Spike	P	0 - 30
2258016	Benzovindiflupyr	21.0	Spike	P	0 - 30
2258016	Carbamazepine	6.92	Spike	P	0 - 30
2258016	Clothianidin	6.15	Spike	P	0 - 30
2258016	Dinotefuran	19.0	Spike	P	0 - 30
2258016	Diuron	8.61	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B

Batch ID: P400469

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2258016	Fenuron	6.91	Spike	P	0 - 30
2258016	Fluridone	10.7	Spike	P	0 - 30
2258016	Hydrocodone	11.3	Spike	P	0 - 30
2258016	Ibuprofen	7.81	Spike	P	0 - 30
2258016	Imazapyr	14.0	Spike	P	0 - 30
2258016	Imidacloprid	5.16	Spike	P	0 - 30
2258016	Linuron	15.1	Spike	P	0 - 30
2258016	Mandestrobin	5.98	Spike	P	0 - 30
2258016	MCCP	19.7	Spike	P	0 - 30
2258016	Naproxen	2.81	Spike	P	0 - 30
2258016	Primidone	6.22	Spike	P	0 - 30
2258016	Pyraclostrobin	12.3	Spike	P	0 - 30
2258016	Thiamethoxam	13.0	Spike	P	0 - 30
2258016	Tolfenpyrad	8.86	Spike	P	0 - 30
2258016	Triclopyr	7.54	Spike	P	0 - 30

Reference Method: SM 2120 B-2011

Batch ID: P400486

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2258554	Color (true)	1.97	Sample	P	0 - 20

Reference Method: SM 2320 B-2011

Batch ID: P400782

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2258566	Total Alkalinity	1.54	Sample	P	0 - 5.2

Reference Method: SM 2540 C-2011

Batch ID: P400832

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2258554	TDS	3.02	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011

Batch ID: P400786

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2258566	Fluoride	0.506	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011

Batch ID: P400823

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2258555	Organic Carbon	0.558	Spike	P	0 - 20

Quality Assurance Report Precision

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

Quality Assurance Report Surrogates

Lab Sample ID: 2258570

Field Sample ID: G4SD0158

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	112	P	30 - 160
EPA 8321B	Acetaminophen-d4	108	P	30 - 160
EPA 8321B	Carbamazepine-d10	98.0	P	30 - 160
EPA 8321B	Diuron-d6	91.2	P	30 - 160
EPA 8321B	Endothall-d6	69.8	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	84.9	P	30 - 160
EPA 8321B	Ibuprofen-d3	84.1	P	30 - 160
EPA 8321B	Primidone-d5	93.2	P	30 - 160
EPA 8321B	Sucralose-d6	80.4	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A106399

Included Lab Sample IDs: 2258568

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.4	98.6	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A106410

Included Lab Sample IDs: 2258566

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

Reference Method: SM 2120 B-2011

Run ID: A106412

Included Lab Sample IDs: 2258566

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	100	P/P	90 - 115

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A106426

Included Lab Sample IDs: 2258567

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

Reference Method: EPA 8321B

Run ID: A106430

Included Lab Sample IDs: 2258570

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	82.0	102	P/P	60 - 160
Glufosinate	71.6	91.0	P/P	60 - 160
Glyphosate	78.9	99.3	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A106461

Included Lab Sample IDs: 2258570

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	77.8	97.4	P/P	60 - 160
Endothall	75.1	76.5	P/P	60 - 160
Sucralose	71.0	72.8	P/P	60 - 160

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A106481

Included Lab Sample IDs: 2258566

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.8	99.8	P/P	90 - 110
Sulfate	98.6	99.6	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A106482

Included Lab Sample IDs: 2258567

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

Reference Method: EPA 8321B

Run ID: A106497

Included Lab Sample IDs: 2258570

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	106	98.0	P/P	50 - 150
2,4,5-T	94.1	91.4	P/P	50 - 150
Acetaminophen	98.2	99.4	P/P	60 - 160
Acetamiprid	102	106	P/P	50 - 150
Afidopyropen	116	95.9	P/P	50 - 150
Bentazon	119	108	P/P	50 - 160
Benzovindiflupyr	109	95.7	P/P	50 - 150
Carbamazepine	100	101	P/P	60 - 150
Clothianidin	108	101	P/P	60 - 150
Dinotefuran	103	107	P/P	50 - 150
Diuron	109	109	P/P	60 - 160
Fenuron	91.5	96.6	P/P	60 - 150
Fluridone	106	103	P/P	60 - 160
Hydrocodone	109	104	P/P	60 - 150
Ibuprofen	83.6	92.8	P/P	50 - 160
Imazapyr	100	96.0	P/P	50 - 150
Imidacloprid	99.7	104	P/P	60 - 150
Linuron	86.4	107	P/P	60 - 150
Mandestrobin	104	102	P/P	50 - 150
MCPP	99.8	99.6	P/P	50 - 150
Naproxen	114	158	P/P	50 - 160
Primidone	83.0	96.9	P/P	60 - 150
Pyraclostrobin	100	105	P/P	60 - 150
Thiamethoxam	105	108	P/P	50 - 150
Tolfenpyrad	92.3	98.7	P/P	60 - 150
Triclopyr	96.3	95.5	P/P	50 - 150

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A106518

Included Lab Sample IDs: 2258567

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

Reference Method: SM 2320 B-2011

Run ID: A106546

Included Lab Sample IDs: 2258566

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

Quality Assurance Report Calibration Verification

Reference Method: SM 4500 F-C-2011

Run ID: A106546

Included Lab Sample IDs: 2258566

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

Reference Method: SM 5310 B-2011

Run ID: A106565

Included Lab Sample IDs: 2258567

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A106567

Included Lab Sample IDs: 2258571

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	104	91.2	P/P	90 - 110
Calcium	104	99.4	P/P	90 - 110
Iron	105	101	P/P	90 - 110
Magnesium	105	101	P/P	90 - 110
Manganese	103	90.5	P/P	90 - 110
Sodium	105	104	P/P	90 - 110
Zinc	108	94.8	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A106571

Included Lab Sample IDs: 2258571

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	101	102	P/P	90 - 110
Antimony	106	106	P/P	90 - 110
Boron	101	103	P/P	90 - 110
Chromium	96.4	95.9	P/P	90 - 110
Nickel	98.2	97.5	P/P	90 - 110
Selenium	98.8	98.1	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A106589

Included Lab Sample IDs: 2258571

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Potassium	98.9	96.5	P/P	95 - 105

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A106617

Included Lab Sample IDs: 2258571

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	100	99.7	P/P	90 - 110
Beryllium	100	99.8	P/P	90 - 110
Cadmium	105	105	P/P	90 - 110
Copper	97.1	93.9	P/P	90 - 110
Lead	100	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A106617

Included Lab Sample IDs: 2258571

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Silver	104	103	P/P	90 - 110
Thallium	100	99.6	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A106748

Included Lab Sample IDs: 2258567

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.1	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								0.396	
EPA 200.7 Rev. 4.4	Barium	104			108	95.8	101			11.4
	Calcium	100			80.5		101			11.0
	Iron	112			118	107	114			9.76
	Magnesium	101			84.3	106				9.43
	Manganese	102			106	94.6	99.5			11.1
	Potassium	99.6			115					5.41
	Sodium	102			90.1	109				10.2
	Zinc	103			105	92.3	101			12.1
EPA 200.8 Rev. 5.4	Aluminum	113			104	110	112			1.96
	Antimony	115			111	114	117			2.26
	Arsenic	111			107	109	111			1.60
	Beryllium	109			107	110	111			0.278
	Boron	114			108	112	114			0.937
	Cadmium	110			106	107	109			1.87
	Chromium	108			102	103	105			1.23
	Copper	110			101	105	105			0.488
	Lead	109			106	106	109			2.43
	Nickel	110			105	104	106			1.73
	Selenium	109			104	104	107			2.80
	Silver	114			108	109	108			0.380
	Thallium	110			112	110	113			2.73
EPA 300.0 Rev. 2.1	Chloride	96.6			97.6	96.7			0.669	
	Sulfate	96.6			95.9					
EPA 350.1 Rev. 2.0	Ammonia-N	99.6			98.2	91.2				4.59
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	105			92.4	93.5				0.932
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	100			100	101				0.496
EPA 365.1 Rev. 2.0	Total-P	103								1.04
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	100			94.7	95.6				0.946
EPA 8321B	2,4-D	102			111	115				3.51
	2,4,5-T	88.8			118	102				15.0
	Acesulfame K	85.0			87.0	84.0				3.53
	Acetaminophen	91.0			125	106				15.9
	Acetamiprid	75.9			96.2	76.6				22.6
	Afidopyropen	78.3			43.0	40.8				5.24
	AMPA	87.6			80.5	82.7				2.70
	Bentazon	115			88.1	84.4				4.36
	Benzovindiflupyr	83.0			80.1	64.9				21.0
	Carbamazepine	90.2			105	98.4				6.92
	Clothianidin	88.8			125	117				6.15
	Dinotefuran	82.7			127	105				19.0
	Diuron	73.3			87.6	80.3				8.61
	Endothall	73.5			77.7	80.3				3.17
	Fenuron	87.3			90.1	84.1				6.91
	Fluridone	87.1			84.7	76.1				10.7
	Glufosinate	83.7			85.7	95.5				10.9
	Glyphosate	89.3			87.3	87.9				0.726
	Hydrocodone	81.5			118	106				11.3
	Ibuprofen	85.2			75.0	81.1				7.81
	Imazapyr	92.9			149	128				14.0
	Imidacloprid	94.3			206	191				5.16
	Linuron	64.3			86.5	74.3				15.1
	Mandestrobin	79.4			86.5	81.5				5.98
	MCPP	113			131	107				19.7

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Naproxen	123	131	128		2.81
	Primidone	62.4	98.1	104		6.22
	Pyraclostrobin	80.5	76.2	67.4		12.3
	Sucralose	73.7	72.2	74.8		3.61
	Thiamethoxam	93.4	174	153		13.0
	Tolfenpyrad	50.5	58.5	53.5		8.86
	Triclopyr	87.2	119	110		7.54
SM 2120 B-2011	Color (true)	98.6			1.97	
SM 2320 B-2011	Total Alkalinity	102			1.54	
SM 2540 C-2011	TDS				3.02	
SM 4500 F-C-2011	Fluoride	100	99.4	98.8		0.506
SM 5310 B-2011	Organic Carbon	99.4	101	102		0.558

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2258566
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2258571
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2258571
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2258566
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2258566
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2258567
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2258567
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2258567
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2258567
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2258568
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2258570
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2258566
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2258566
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2258571
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2258566
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2258566
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2258566
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2258567

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	07/01/2021			07/01/2021 16:21	Sarah A Nixon	2258566
EPA 200.7 Rev. 4.4	07/01/2021	07/07/2021 14:10	Elliott D. Healy	07/12/2021 15:49	Betina Topolski	2258571
	07/01/2021	07/07/2021 14:10	Elliott D. Healy	07/13/2021 11:33	Betina Topolski	2258571
EPA 200.8 Rev. 5.4	07/01/2021	07/07/2021 14:10	Elliott D. Healy	07/12/2021 19:50	McKinley C Carter	2258571
	07/01/2021	07/07/2021 14:10	Elliott D. Healy	07/14/2021 14:36	Alexander Thompson	2258571
EPA 300.0 Rev. 2.1	07/01/2021			07/08/2021 22:55	Lipi Saha	2258566
EPA 350.1 Rev. 2.0	07/01/2021			07/21/2021 13:52	Roberta Tatti	2258567
EPA 351.2 Rev. 2.0	07/01/2021	07/07/2021 13:14	Benjamin T. Nordmann	07/08/2021 15:54	Letuzia M De Oliveira	2258567
EPA 353.2 Rev. 2.0	07/01/2021			07/02/2021 09:45	Beverly Y. Sanders	2258567
EPA 365.1 Rev. 2.0	07/01/2021	07/06/2021 15:49	Madeline Gruver	07/07/2021 13:06	Shengyu Ding	2258567
EPA 365.1 Rev. 2.0 dissolved	07/01/2021			07/01/2021 15:06	Ping Hua	2258568
EPA 8321B	07/01/2021	07/02/2021 08:00	Pramila Ghimire	07/02/2021 08:34	Pramila Ghimire	2258570
	07/01/2021	07/02/2021 08:00	Pramila Ghimire	07/02/2021 15:55	Pramila Ghimire	2258570
	07/01/2021	07/02/2021 14:00	Hoor Shaik	07/07/2021 21:30	Juyoung Kim	2258570
SM 2120 B-2011	07/01/2021			07/01/2021 16:54	Sarah A Nixon	2258566
SM 2320 B-2011	07/01/2021			07/10/2021 04:59	Dale L. Simmons	2258566
SM 2340B	07/01/2021			07/12/2021 15:49	Betina Topolski	2258571
SM 2540 C-2011	07/01/2021			07/06/2021 14:08	Yijie Li	2258566
SM 2540 D-2011	07/01/2021			07/06/2021 14:08	Yijie Li	2258566
SM 4500 F-C-2011	07/01/2021			07/10/2021 04:49	Dale L. Simmons	2258566
SM 5310 B-2011	07/01/2021			07/10/2021 04:12	Madeline Gruver	2258567