

Chemical Analysis Report

SO-DIST-2020-12-15-03

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

Event Description: **2020 Continuous Monitoring**

Request ID: **RQ-2020-12-07-15**

Customer: **SO-DIST**

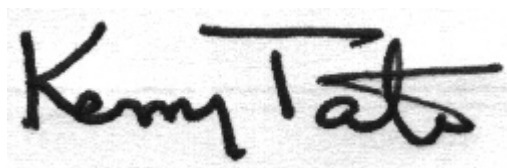
Project ID: **SMP**

Send Reports to:
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Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 05-JAN-2021 14:07

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: Little Alligator Creek @ Midway Blvd

Collection Date/Time: 12/14/2020 09:55

Field ID: G3SD0071

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2213359	EPA 180.1 Rev. 2.0	Turbidity	1.7		NTU	P391266	
	EPA 300.0 Rev. 2.1	Bromide	25		mg Br/L	P391328	
	SM 2320 B-2011	Total Alkalinity	162		mg CaCO3/L	P391317	
	SM 2540 D-2011	TSS	5	I	mg/L	P391643	
	SM 4500 F-C-2011	Fluoride	0.71		mg F/L	P391749	
2213360	EPA 350.1 Rev. 2.0	Ammonia-N	0.15		mg N/L	P391715	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.81		mg N/L	P391706	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.066		mg N/L	P391400	
	EPA 365.1 Rev. 2.0	Total-P	0.12		mg P/L	P391443	
	SM 5310 B-2011	Organic Carbon	8.7		mg C/L	P391751	
2213361	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.11		mg P/L	P391228	
2213376	EPA 200.7 Rev. 4.4	Chromium	5.5	I	ug/L	P391764	
		Iron	90	U	ug/L	P391764	
		Manganese	11	I	ug/L	P391764	
		Zinc	15	U	ug/L	P391764	
	EPA 200.8 Rev. 5.4	Aluminum	64	I	ug/L	P391764	
		Antimony	0.33	I	ug/L	P391764	
		Arsenic	2.10		ug/L	P391764	
		Cadmium	0.79		ug/L	P391764	
		Copper	1.6	U	ug/L	P391764	
		Lead	0.80	U	ug/L	P391764	
		Nickel	2.0	U	ug/L	P391764	
		Selenium	0.80	U	ug/L	P391764	
		Silver	0.040	U	ug/L	P391764	
		Thallium	0.40	U	ug/L	P391764	
	SM 2340B	Hardness	2.67E+03		mg/L	P391764	

Ref. Method and Comment:

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

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Apollo Waterway @ Bend

Collection Date/Time: 12/14/2020 11:10

Field ID: G3SD0069

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2213362	EPA 180.1 Rev. 2.0	Turbidity	3.4		NTU	P391266	
	EPA 300.0 Rev. 2.1	Bromide	13		mg Br/L	P391328	
	SM 2320 B-2011	Total Alkalinity	115		mg CaCO3/L	P391317	
	SM 2540 D-2011	TSS	5	I	mg/L	P391641	
	SM 4500 F-C-2011	Fluoride	0.45		mg F/L	P391749	
2213363	EPA 350.1 Rev. 2.0	Ammonia-N	0.009		mg N/L	P391715	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.96		mg N/L	P391706	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P391400	
	EPA 365.1 Rev. 2.0	Total-P	0.20		mg P/L	P391443	
	SM 5310 B-2011	Organic Carbon	16		mg C/L	P391417	
2213364	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.16		mg P/L	P391228	

Ref. Method and Comment:

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

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Rock Creek @ Eisenhower Dr

Collection Date/Time: 12/14/2020 11:40

Field ID: G3SD0070

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2213365	EPA 180.1 Rev. 2.0	Turbidity	3.9	A	NTU	P391266	
	EPA 300.0 Rev. 2.1	Bromide	11		mg Br/L	P391328	
	SM 2320 B-2011	Total Alkalinity	96		mg CaCO3/L	P391317	
	SM 2540 D-2011	TSS	5	I	mg/L	P391641	
	SM 4500 F-C-2011	Fluoride	0.41		mg F/L	P391749	
2213366	EPA 350.1 Rev. 2.0	Ammonia-N	0.011		mg N/L	P391715	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P391706	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.007	I	mg N/L	P391400	
	EPA 365.1 Rev. 2.0	Total-P	0.23		mg P/L	P391443	
	SM 5310 B-2011	Organic Carbon	18		mg C/L	P391417	
2213367	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.18		mg P/L	P391228	
2213375	EPA 8321B	2,4-D	0.017		ug/L	P391438	
		Acesulfame K**	0.10	UJ	ug/L	P391314	SUR
		AMPA**	0.24	IJ	ug/L	P391314	SUR
		Sucralose**	0.11		ug/L	P391314	
		Acetaminophen**	0.0080	U	ug/L	P391438	RPD
		Acetamiprid**	0.0020	U	ug/L	P391438	
		Endothall**	0.25	UJ	ug/L	P391314	SUR
		Glufosinate**	0.10	UJ	ug/L	P391314	SUR
		Glyphosate**	4.2	J	ug/L	P391314	SUR
		Afidopyropen**	0.0020	U	ug/L	P391438	
		Bentazon	0.021		ug/L	P391438	
		Benzovindiflupyr**	0.0020	U	ug/L	P391438	
		Carbamazepine**	8.8E-04	I	ug/L	P391438	
		Clothianidin**	0.0020	U	ug/L	P391438	
		Dinotefuran**	0.061		ug/L	P391438	
		Diuron	0.0020	U	ug/L	P391438	
		Fenuron	0.016	U	ug/L	P391438	
		Fluridone**	0.025		ug/L	P391438	
		Imazapyr**	0.037		ug/L	P391438	MS
		Hydrocodone**	0.0020	U	ug/L	P391438	
		Ibuprofen**	0.020	U	ug/L	P391438	
		Imidacloprid	0.015		ug/L	P391438	
		Linuron	0.0040	U	ug/L	P391438	
		Mandestrobin**	0.0020	U	ug/L	P391438	
		MCP	0.0020	U	ug/L	P391438	
		Naproxen**	0.0080	U	ug/L	P391438	
		Primidone**	0.0040	U	ug/L	P391438	
		Pyraclostrobin**	0.0020	U	ug/L	P391438	
		Thiamethoxam**	0.0034	I	ug/L	P391438	
		Tolfenpyrad**	0.0020	U	ug/L	P391438	
		Triclopyr**	0.0040	U	ug/L	P391438	
2213377	EPA 200.7 Rev. 4.4	Chromium	3.0	U	ug/L	P391764	

Field ID: G3SD0070

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2213377	EPA 200.7 Rev. 4.4	Iron	440		ug/L	P391764	
		Manganese	10	I	ug/L	P391764	
		Zinc	15	U	ug/L	P391764	
	EPA 200.8 Rev. 5.4	Aluminum	157		ug/L	P391764	
		Antimony	0.20	U	ug/L	P391764	
		Arsenic	1.65		ug/L	P391764	
		Cadmium	0.080	U	ug/L	P391764	
		Copper	1.6	U	ug/L	P391764	
		Lead	0.80	U	ug/L	P391764	
		Nickel	2.0	U	ug/L	P391764	
		Selenium	0.80	U	ug/L	P391764	
		Silver	0.040	U	ug/L	P391764	
		Thallium	0.40	U	ug/L	P391764	
	SM 2340B	Hardness	1.24E+03		mg/L	P391764	

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
 EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high 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.
 EPA 8321B: Results confirmed in sample duplicate. 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: P391266

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P391764

Component	Result	Code	Units
Chromium	1.0	U	ug/L
Iron	30	U	ug/L
Manganese	1.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P391764

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Cadmium	0.020	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: P391328

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391715

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P391706

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P391400

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P391443

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P391228

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

Reference Method: EPA 8321B
Batch ID: P391314

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: P391438

Component	Result	Code	Units
2,4-D	0.0020	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	0.030	I	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
Pyraclostrobin	0.0020	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 2320 B-2011
Batch ID: P391317

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

Reference Method: SM 2540 D-2011
Batch ID: P391641

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P391643

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P391749

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P391417

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

Reference Method: SM 5310 B-2011
Batch ID: P391751

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: P391764

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chromium	99.7		P	85 - 115
Iron	106		P	85 - 115
Manganese	104		P	85 - 115
Zinc	99.3		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P391764

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	100		P	85 - 115
Antimony	104		P	85 - 115
Arsenic	100		P	85 - 115
Cadmium	99.6		P	85 - 115
Copper	98.9		P	85 - 115
Lead	104		P	85 - 115
Nickel	99.2		P	85 - 115
Selenium	96.6		P	85 - 115
Silver	106		P	85 - 115
Thallium	104		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P391328

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391715

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: P391706

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P391400

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO ₂ NO ₃ -N	102		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P391443

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P391228

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

Reference Method: EPA 8321B
 Batch ID: P391314

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	106		P	40 - 150
AMPA	93.5		P	40 - 150
Endothall	90.9		P	40 - 150
Glufosinate	96.9		P	40 - 150
Glyphosate	92.3		P	40 - 140
Sucralose	105		P	40 - 150

Reference Method: EPA 8321B
 Batch ID: P391438

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	68.4		P	30 - 160
Acetaminophen	68.2		P	30 - 150
Acetamiprid	96.5		P	30 - 160
Afidopyropen	70.6		P	30 - 160
Bentazon	52.0		P	30 - 150
Benzovindiflupyr	83.9		P	30 - 160
Carbamazepine	66.9		P	30 - 160
Clothianidin	87.6		P	30 - 160
Dinotefuran	82.9		P	30 - 160
Diuron	54.9		P	30 - 160
Fenuron	97.0		P	30 - 160
Fluridone	73.6		P	30 - 160
Hydrocodone	92.6		P	30 - 160
Ibuprofen	50.3		P	30 - 160
Imazapyr	68.4		P	30 - 160
Imidacloprid	96.9		P	30 - 160
Linuron	62.6		P	30 - 160
Mandestrobin	81.0		P	30 - 160
MCPP	80.0		P	30 - 160
Naproxen	48.0		P	30 - 160
Primidone	73.8		P	30 - 160
Pyraclostrobin	72.2		P	30 - 160
Thiamethoxam	91.6		P	30 - 160
Tolfenpyrad	49.7		P	30 - 160
Triclopyr	69.6		P	30 - 160

Reference Method: SM 2320 B-2011
 Batch ID: P391317

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-2011
Batch ID: P391749

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	94.8		P	90 - 106

Reference Method: SM 5310 B-2011
Batch ID: P391417

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.2		P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P391751

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	103		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P391764

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2213377	Chromium	105	104	P/P	70 - 130
2213377	Iron	109	110	P/P	70 - 130
2213377	Manganese	104	104	P/P	70 - 130
2213377	Zinc	98.8	101	P/P	70 - 130

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P391764

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2213377	Aluminum	116	112	P/P	70 - 130
2213377	Antimony	109	106	P/P	70 - 130
2213377	Arsenic	111	109	P/P	70 - 130
2213377	Cadmium	99.5	98.2	P/P	70 - 130
2213377	Copper	114	113	P/P	70 - 130
2213377	Lead	114	109	P/P	70 - 130
2213377	Nickel	108	106	P/P	70 - 130
2213377	Selenium	103	99.6	P/P	70 - 130
2213377	Silver	97.2	97.9	P/P	70 - 130
2213377	Thallium	111	110	P/P	70 - 130

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P391328

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2213031	Bromide	101	101	P/P	90 - 110
2213032	Bromide	97.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391715

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2213363	Ammonia-N	98.6	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P391400

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2213208	NO2NO3-N	101	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P391443

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2213360	Total-P	98.0	96.7	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P391228

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2213330	O-Phosphate-P	102	102	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P391314

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2213076	Acesulfame K	110	109	P/P	40 - 150
2213076	AMPA	130	144	P/P	40 - 150
2213076	Endothall	106	117	P/P	40 - 150
2213076	Glufosinate	95.1	110	P/P	40 - 150
2213076	Glyphosate	72.1	89.2	P/P	40 - 140
2213076	Sucralose	104	109	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P391438

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2212466	2,4-D	60.9	71.6	P/P	30 - 160
2212466	Acetaminophen	63.8	107	P/P	30 - 150
2212466	Acetamiprid	93.8	90.8	P/P	30 - 160
2212466	Afidopyropen	58.9	70.8	P/P	30 - 160
2212466	Benzovindiflupyr	74.6	74.7	P/P	30 - 160
2212466	Carbamazepine	58.9	59.8	P/P	30 - 160
2212466	Clothianidin	73.6	73.0	P/P	30 - 160
2212466	Dinotefuran	98.1	97.0	P/P	30 - 160
2212466	Diuron	42.3	40.6	P/P	30 - 160
2212466	Fenuron	76.9	77.6	P/P	30 - 160
2212466	Fluridone	69.6	58.1	P/P	30 - 160
2212466	Hydrocodone	101	102	P/P	30 - 160
2212466	Ibuprofen	37.2	48.6	P/P	30 - 160
2212466	Imazapyr	15.0	13.7	F/F	30 - 160
2212466	Imidacloprid	128	123	P/P	30 - 160
2212466	Linuron	56.1	58.4	P/P	30 - 160
2212466	Mandestrobin	70.8	68.2	P/P	30 - 160
2212466	MCPP	65.5	65.3	P/P	30 - 160
2212466	Naproxen	35.2	42.7	P/P	30 - 160
2212466	Primidone	69.4	71.7	P/P	30 - 160
2212466	Pyraclostrobin	73.9	75.0	P/P	30 - 160
2212466	Thiamethoxam	114	120	P/P	30 - 160
2212466	Tolfenpyrad	50.5	44.8	P/P	30 - 160
2212466	Triclopyr	64.4	66.0	P/P	30 - 160

Reference Method: SM 4500 F-C-2011
Batch ID: P391749

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2213362	Fluoride	99.3	100	P/P	94 - 107

Reference Method: SM 5310 B-2011
Batch ID: P391417

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2213328	Organic Carbon	96.4	95.0	P/P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P391751

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

Reference Method: SM 5310 B-2011
Batch ID: P391751

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2215526	Organic Carbon	100	100	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P391266

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2213365	Turbidity	1.29	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P391764

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2213377	Chromium	0.618	Spike	P	0 - 20
2213377	Iron	1.23	Spike	P	0 - 20
2213377	Manganese	0.244	Spike	P	0 - 20
2213377	Zinc	2.50	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P391764

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2213377	Aluminum	3.02	Spike	P	0 - 20
2213377	Antimony	2.67	Spike	P	0 - 20
2213377	Arsenic	2.34	Spike	P	0 - 20
2213377	Cadmium	1.29	Spike	P	0 - 20
2213377	Copper	1.07	Spike	P	0 - 20
2213377	Lead	4.00	Spike	P	0 - 20
2213377	Nickel	1.98	Spike	P	0 - 20
2213377	Selenium	3.40	Spike	P	0 - 20
2213377	Silver	0.722	Spike	P	0 - 20
2213377	Thallium	1.00	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P391328

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2213031	Bromide	0.0591	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391715

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2213363	Ammonia-N	1.37	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P391706

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2213733	Kjeldahl Nitrogen	7.51	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P391400

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2213208	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P391443

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2213360	Total-P	1.13	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P391228

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2213330	O-Phosphate-P	0.196	Spike	P	0 - 20

Reference Method: EPA 8321B
 Batch ID: P391314

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2213076	Acesulfame K	0.833	Spike	P	0 - 30
2213076	AMPA	10.4	Spike	P	0 - 30
2213076	Endothall	9.97	Spike	P	0 - 30
2213076	Glufosinate	14.9	Spike	P	0 - 30
2213076	Glyphosate	21.3	Spike	P	0 - 30
2213076	Sucralose	3.89	Spike	P	0 - 30

Reference Method: EPA 8321B
 Batch ID: P391438

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2212466	2,4-D	16.0	Spike	P	0 - 30
2212466	Acetaminophen	50.9	Spike	F	0 - 30
2212466	Acetamiprid	3.22	Spike	P	0 - 30
2212466	Afidopyrophen	18.4	Spike	P	0 - 30
2212466	Bentazon	4.05	Spike	P	0 - 30
2212466	Benzovindiflupyr	0.184	Spike	P	0 - 30
2212466	Carbamazepine	1.52	Spike	P	0 - 30
2212466	Clothianidin	0.915	Spike	P	0 - 30
2212466	Dinotefuran	1.09	Spike	P	0 - 30
2212466	Diuron	3.93	Spike	P	0 - 30
2212466	Fenuron	0.995	Spike	P	0 - 30
2212466	Fluridone	17.9	Spike	P	0 - 30
2212466	Hydrocodone	1.60	Spike	P	0 - 30
2212466	Ibuprofen	26.7	Spike	P	0 - 30
2212466	Imazapyr	1.65	Spike	P	0 - 30
2212466	Imidacloprid	4.29	Spike	P	0 - 30
2212466	Linuron	3.93	Spike	P	0 - 30
2212466	Mandestrobin	3.66	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
 Batch ID: P391438

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2212466	MCP	0.246	Spike	P	0 - 30
2212466	Naproxen	19.3	Spike	P	0 - 30
2212466	Primidone	3.21	Spike	P	0 - 30
2212466	Pyraclostrobin	1.41	Spike	P	0 - 30
2212466	Thiamethoxam	5.50	Spike	P	0 - 30
2212466	Tolfenpyrad	11.8	Spike	P	0 - 30
2212466	Triclopyr	2.49	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
 Batch ID: P391317

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2213233	Total Alkalinity	1.87	Sample	P	0 - 8.1

Reference Method: SM 4500 F-C-2011
 Batch ID: P391749

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2213362	Fluoride	0.509	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011
 Batch ID: P391417

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2213328	Organic Carbon	1.23	Spike	P	0 - 20

Reference Method: SM 5310 B-2011
 Batch ID: P391751

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2215526	Organic Carbon	0.444	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2213375

Field Sample ID: G3SD0070

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	54.1	P	30 - 160
EPA 8321B	Acetaminophen-d4	46.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	39.9	P	30 - 160
EPA 8321B	Diuron-d6	38.5	P	30 - 160
EPA 8321B	Endothall-d6	623	F	40 - 160
EPA 8321B	Endothall-d6	623	F	40 - 160
EPA 8321B	Glyphosate 13C 15N	613	F	40 - 160
EPA 8321B	Glyphosate 13C 15N	613	F	40 - 160
EPA 8321B	Ibuprofen-d3	48.8	P	30 - 160
EPA 8321B	Primidone-d5	53.4	P	30 - 160
EPA 8321B	Sucralose-d6	42.4	P	30 - 160
EPA 8321B	Sucralose-d6	42.4	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A102610
Included Lab Sample IDs: 2213361, 2213364, 2213367

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.9	99.3	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A102613
Included Lab Sample IDs: 2213359, 2213362, 2213365

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

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A102618
Included Lab Sample IDs: 2213359, 2213362, 2213365

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	104	104	P/P	95 - 105

Reference Method: SM 2320 B-2011
Run ID: A102634
Included Lab Sample IDs: 2213359, 2213362, 2213365

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.1	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A102660
Included Lab Sample IDs: 2213360, 2213363, 2213366

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

Reference Method: SM 5310 B-2011
Run ID: A102665
Included Lab Sample IDs: 2213363, 2213366

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.2	96.2	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A102674
Included Lab Sample IDs: 2213375

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	105	104	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A102700
Included Lab Sample IDs: 2213360, 2213363, 2213366

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.8	98.5	P/P	85 - 115

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A102710

Included Lab Sample IDs: 2213375

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	97.9	103	P/P	60 - 160
AMPA	87.6	95.4	P/P	60 - 160
Endothall	99.2	105	P/P	60 - 160
Glufosinate	89.3	99.2	P/P	60 - 160
Glyphosate	103	89.1	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A102718

Included Lab Sample IDs: 2213375

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	84.2	75.1	P/P	50 - 150
Acetaminophen	108	105	P/P	60 - 160
Acetamiprid	125	111	P/P	50 - 150
Afidopyropen	120	98.9	P/P	50 - 150
Bentazon	120	102	P/P	50 - 160
Benzovindiflupyr	112	101	P/P	50 - 150
Carbamazepine	95.6	91.4	P/P	60 - 150
Clothianidin	102	109	P/P	60 - 150
Dinotefuran	92.3	106	P/P	50 - 150
Diuron	86.1	84.4	P/P	60 - 160
Fenuron	104	106	P/P	60 - 150
Fluridone	114	117	P/P	60 - 160
Hydrocodone	98.3	102	P/P	60 - 150
Ibuprofen	78.4	87.4	P/P	50 - 160
Imazapyr	82.4	82.0	P/P	50 - 150
Imidacloprid	104	98.1	P/P	60 - 150
Linuron	109	95.1	P/P	60 - 150
Mandestrobin	110	106	P/P	50 - 150
MCPP	78.1	89.7	P/P	50 - 150
Naproxen	80.8	107	P/P	50 - 160
Primidone	96.1	91.7	P/P	60 - 150
Pyraclostrobin	105	106	P/P	60 - 150
Thiamethoxam	99.3	105	P/P	50 - 150
Tolfenpyrad	104	109	P/P	60 - 150
Triclopyr	94.6	99.8	P/P	50 - 150

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A102771

Included Lab Sample IDs: 2213360, 2213363, 2213366

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.1	98.7	P/P	90 - 110
Ammonia-N	99.7	99.1	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A102789

Included Lab Sample IDs: 2213359, 2213362, 2213365

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	98.6	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 4500 F-C-2011

Run ID: A102789

Included Lab Sample IDs: 2213359, 2213362, 2213365

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.1	100	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A102792

Included Lab Sample IDs: 2213360

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	99.6	99.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A102804

Included Lab Sample IDs: 2213360, 2213363, 2213366

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	95.5	98.9	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A102825

Included Lab Sample IDs: 2213376, 2213377

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	103	105	P/P	90 - 110
Antimony	98.5	99.2	P/P	90 - 110
Arsenic	102	103	P/P	90 - 110
Cadmium	99.0	98.8	P/P	90 - 110
Copper	102	105	P/P	90 - 110
Lead	106	103	P/P	90 - 110
Nickel	101	103	P/P	90 - 110
Selenium	98.6	98.8	P/P	90 - 110
Thallium	105	105	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A102827

Included Lab Sample IDs: 2213376, 2213377

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chromium	98.9	99.2	P/P	90 - 110
Iron	103	104	P/P	90 - 110
Manganese	103	103	P/P	90 - 110
Zinc	99.4	98.1	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A102843

Included Lab Sample IDs: 2213376, 2213377

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Silver	102	102	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					1.29	
EPA 200.7 Rev. 4.4	Chromium	99.7	105	104			0.618
	Iron	106	109	110			1.23
	Manganese	104	104	104			0.244
	Zinc	99.3	98.8	101			2.50
EPA 200.8 Rev. 5.4	Aluminum	100	116	112			3.02
	Antimony	104	109	106			2.67
	Arsenic	100	111	109			2.34
	Cadmium	99.6	99.5	98.2			1.29
	Copper	98.9	114	113			1.07
	Lead	104	114	109			4.00
	Nickel	99.2	108	106			1.98
	Selenium	96.6	103	99.6			3.40
	Silver	106	97.2	97.9			0.722
	Thallium	104	111	110			1.00
EPA 300.0 Rev. 2.1	Bromide	101	101	101	97.6		0.0591
EPA 350.1 Rev. 2.0	Ammonia-N	96.8	98.6	100			1.37
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	98.0					7.51
EPA 353.2 Rev. 2.0	NO2NO3-N	102	101	101			0.0
EPA 365.1 Rev. 2.0	Total-P	101	98.0	96.7			1.13
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	100	102	102			0.196
EPA 8321B	2,4-D	68.4	60.9	71.6			16.0
	Acesulfame K	106	110	109			0.833
	Acetaminophen	68.2	63.8	107			50.9
	Acetamiprid	96.5	93.8	90.8			3.22
	Afidopyropen	70.6	58.9	70.8			18.4
	AMPA	93.5	130	144			10.4
	Bentazon	52.0					4.05
	Benzovindiflupyr	83.9	74.6	74.7			0.184
	Carbamazepine	66.9	58.9	59.8			1.52
	Clothianidin	87.6	73.6	73.0			0.915
	Dinotefuran	82.9	98.1	97.0			1.09
	Diuron	54.9	42.3	40.6			3.93
	Endothall	90.9	106	117			9.97
	Fenuron	97.0	76.9	77.6			0.995
	Fluridone	73.6	69.6	58.1			17.9
	Glufosinate	96.9	95.1	110			14.9
	Glyphosate	92.3	72.1	89.2			21.3
	Hydrocodone	92.6	101	102			1.60
	Ibuprofen	50.3	37.2	48.6			26.7
	Imazapyr	68.4	15.0	13.7			1.65
	Imidacloprid	96.9	128	123			4.29
	Linuron	62.6	56.1	58.4			3.93
	Mandestrobin	81.0	70.8	68.2			3.66
	MCPP	80.0	65.5	65.3			0.246
	Naproxen	48.0	35.2	42.7			19.3
	Primidone	73.8	69.4	71.7			3.21
	Pyraclostrobin	72.2	73.9	75.0			1.41
	Sucralose	105	104	109			3.89
	Thiamethoxam	91.6	114	120			5.50
	Tolfenpyrad	49.7	50.5	44.8			11.8
	Triclopyr	69.6	64.4	66.0			2.49
SM 2320 B-2011	Total Alkalinity	102				1.87	
SM 4500 F-C-2011	Fluoride	94.8	99.3	100			0.509

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
SM 5310 B-2011	Organic Carbon	95.2	96.4	95.0		1.23
	Organic Carbon	103	100	100		0.444

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2213359, 2213362, 2213365
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2213376, 2213377
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2213376, 2213377
EPA 300.0 Rev. 2.1	Bromide in aqueous matrices	2213359, 2213362, 2213365
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2213360, 2213363, 2213366
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2213360, 2213363, 2213366
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2213360, 2213363, 2213366
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2213360, 2213363, 2213366
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2213361, 2213364, 2213367
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2213375
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2213375
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2213359, 2213362, 2213365
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2213376, 2213377
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2213359, 2213362, 2213365
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2213359, 2213362, 2213365
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2213360, 2213363, 2213366

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	12/15/2020			12/15/2020 17:13	Yen Ta	2213359, 2213362, 2213365
EPA 200.7 Rev. 4.4	12/15/2020	12/28/2020 14:15	Elliott D. Healy	12/29/2020 18:40	Betina Topolski	2213376
	12/15/2020	12/28/2020 14:15	Elliott D. Healy	12/29/2020 18:48	Betina Topolski	2213377
EPA 200.8 Rev. 5.4	12/15/2020	12/28/2020 14:15	Elliott D. Healy	12/30/2020 00:57	Alexander Thompson	2213376
	12/15/2020	12/28/2020 14:15	Elliott D. Healy	12/30/2020 01:05	Alexander Thompson	2213377
	12/15/2020	12/28/2020 14:15	Elliott D. Healy	12/30/2020 13:48	Alexander Thompson	2213376
	12/15/2020	12/28/2020 14:15	Elliott D. Healy	12/30/2020 13:52	Alexander Thompson	2213377
EPA 300.0 Rev. 2.1	12/15/2020			12/16/2020 22:12	Lipi Saha	2213359
	12/15/2020			12/16/2020 22:30	Lipi Saha	2213362
	12/15/2020			12/16/2020 22:48	Lipi Saha	2213365
EPA 350.1 Rev. 2.0	12/15/2020			12/23/2020 16:49	Ping Hua	2213363
	12/15/2020			12/23/2020 17:06	Ping Hua	2213360
	12/15/2020			12/23/2020 17:07	Ping Hua	2213366
EPA 351.2 Rev. 2.0	12/15/2020	12/23/2020 14:55	David Boose	12/28/2020 16:53	Julia Storbeck	2213360
	12/15/2020	12/23/2020 14:55	David Boose	12/28/2020 16:54	Julia Storbeck	2213363
	12/15/2020	12/23/2020 14:55	David Boose	12/28/2020 16:56	Julia Storbeck	2213366
EPA 353.2 Rev. 2.0	12/15/2020			12/18/2020 10:06	Beverly Y. Sanders	2213360
	12/15/2020			12/18/2020 10:07	Beverly Y. Sanders	2213363
	12/15/2020			12/18/2020 10:08	Beverly Y. Sanders	2213366
EPA 365.1 Rev. 2.0	12/15/2020	12/18/2020 13:00	Yen Ta	12/21/2020 12:36	Benjamin T. Nordmann	2213360
	12/15/2020	12/18/2020 13:00	Yen Ta	12/21/2020 12:40	Benjamin T. Nordmann	2213363
	12/15/2020	12/18/2020 13:00	Yen Ta	12/21/2020 12:41	Benjamin T. Nordmann	2213366
EPA 365.1 Rev. 2.0 dissolved	12/15/2020			12/15/2020 17:15	Blanca Fach	2213361
	12/15/2020			12/15/2020 17:16	Blanca Fach	2213364
	12/15/2020			12/15/2020 17:17	Blanca Fach	2213367
EPA 8321B	12/15/2020	12/17/2020 11:00	Hoor Shaik	12/21/2020 17:05	Juyoung Kim	2213375
	12/15/2020	12/17/2020 11:00	Rebecca Ware	12/17/2020 15:47	Rebecca Ware	2213375
	12/15/2020	12/17/2020 11:00	Rebecca Ware	12/18/2020 23:45	Rebecca Ware	2213375
SM 2320 B-2011	12/15/2020			12/16/2020 21:01	Dale L. Simmons	2213359
	12/15/2020			12/16/2020 21:14	Dale L. Simmons	2213362
	12/15/2020			12/16/2020 21:28	Dale L. Simmons	2213365
SM 2340B	12/15/2020			12/29/2020 18:48	Betina Topolski	2213377
	12/15/2020			12/30/2020 11:49	Betina Topolski	2213376
SM 2540 D-2011	12/15/2020			12/18/2020 15:11	Yijie Li	2213359, 2213362, 2213365
SM 4500 F-C-2011	12/15/2020			12/23/2020 23:32	Dale L. Simmons	2213362
	12/15/2020			12/24/2020 00:26	Dale L. Simmons	2213365
	12/15/2020			12/24/2020 00:31	Dale L. Simmons	2213359
SM 5310 B-2011	12/15/2020			12/17/2020 07:14	Touraj Touran	2213363
	12/15/2020			12/17/2020 07:28	Touraj Touran	2213366
	12/15/2020			12/24/2020 05:06	Madeline Gruver	2213360