

Chemical Analysis Report

NE-DIST-2020-12-11-01

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

Event Description: **Pellicer Creek boat**
Request ID: **RQ-2020-12-07-42**
Customer: **NE-DIST**
Project ID: **SMP**

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Date Certified: 04-JAN-2021 09:40



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: Pellicer Creek @ Styles Creek

Collection Date/Time: 12/10/2020 11:45

Field ID: G5NE0592

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2212454	EPA 180.1 Rev. 2.0	Turbidity	3.1		NTU	P391053	
	EPA 300.0 Rev. 2.1	Bromide	36		mg Br/L	P391241	
		Sulfate	1.4E+03		mg SO4/L	P391259	
	SM 2320 B-2011	Total Alkalinity	87		mg CaCO3/L	P391137	
	SM 2540 D-2011	TSS	7	I	mg/L	P391530	
	SM 4500 F-C-2011	Fluoride	0.68		mg F/L	P391139	
2212455	EPA 350.1 Rev. 2.0	Ammonia-N	0.014		mg N/L	P391491	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.58		mg N/L	P391454	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.021		mg N/L	P391399	
	EPA 365.1 Rev. 2.0	Total-P	0.054		mg P/L	P391108	
	SM 5310 B-2011	Organic Carbon	15		mg C/L	P391174	
2212466	EPA 8321B	2,4-D	0.0020	U	ug/L	P391438	
		Acesulfame K**	0.10	UJ	ug/L	P391110	MS, SUR
		AMPA**	0.10	UJ	ug/L	P391110	SUR
		Sucralose**	0.19		ug/L	P391110	MS
		Acetaminophen**	0.0080	UJ	ug/L	P391438	RPD
		Acetamiprid**	0.0020	U	ug/L	P391438	
		Endothall**	0.25	UJ	ug/L	P391110	MS, SUR
		Glufosinate**	0.10	UJ	ug/L	P391110	SUR
		Glyphosate**	0.10	UJ	ug/L	P391110	SUR
		Afidopyropen**	0.0020	U	ug/L	P391438	
		Bentazon	0.019		ug/L	P391438	
		Benzovindiflupyr**	0.0020	U	ug/L	P391438	
		Carbamazepine**	8.0E-04	U	ug/L	P391438	
		Clothianidin**	0.0020	U	ug/L	P391438	
		Dinotefuran**	0.0020	U	ug/L	P391438	
		Diuron	0.0020	U	ug/L	P391438	
		Fenuron	0.016	U	ug/L	P391438	
		Fluridone**	8.0E-04	U	ug/L	P391438	
		Imazapyr**	0.049	J	ug/L	P391438	MS
		Hydrocodone**	0.0020	U	ug/L	P391438	
		Ibuprofen**	0.020	U	ug/L	P391438	
		Imidacloprid	0.0020	U	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**	0.0020	U	ug/L	P391438	
		Tolfenpyrad**	0.0020	U	ug/L	P391438	
		Triclopyr**	0.0040	U	ug/L	P391438	
2212468	EPA 200.7 Rev. 4.4	Chromium	7.6	I	ug/L	P391276	
		Iron	300	I	ug/L	P391276	

Field ID: G5NE0592

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2212468	EPA 200.7 Rev. 4.4	Manganese	8.1	I	ug/L	P391276	
		Zinc	15	U	ug/L	P391276	
	EPA 200.8 Rev. 5.4	Aluminum	170	I	ug/L	P391276	
		Antimony	0.20	U	ug/L	P391276	
		Arsenic	1.39		ug/L	P391276	
		Beryllium	0.10	U	ug/L	P391276	
		Cadmium	0.080	U	ug/L	P391276	
		Copper	1.6	U	ug/L	P391276	
		Lead	2.0	U	ug/L	P391276	
		Nickel	2.0	U	ug/L	P391276	
		Selenium	0.80	U	ug/L	P391276	
		Silver	0.040	U	ug/L	P391276	
		Thallium	1.0	U	ug/L	P391276	
		O-Phosphate-P	0.034		mg P/L	P391051	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Bromide: Batch relative percent difference and matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low 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 8321B: MS accuracy for bentazon could not be assessed due to high concentration of parameter in the spiked sample. Refer to the Lab Analysis Report for an explanation of QC Codes.

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

Sample Location: FB12102020

Collection Date/Time: 12/10/2020 11:50

Field ID: FB12102020

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2212456	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P391053	
	EPA 300.0 Rev. 2.1	Bromide	0.013	U	mg Br/L	P391241	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P391136	
	SM 2540 D-2011	TSS	2	U	mg/L	P391526	
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P391138	
2212457	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P391484	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P391451	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P391152	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P391158	
	SM 5310 B-2011	Organic Carbon	0.50	U	mg C/L	P391280	
2212458	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P391050	
2212467	EPA 8321B	2,4-D	0.0020	U	ug/L	P391438	
		Acesulfame K**	0.10	U	ug/L	P391110	MS
		AMPA**	0.10	U	ug/L	P391110	
		Sucralose**	0.010	U	ug/L	P391110	MS
		Acetaminophen**	0.0080	U	ug/L	P391438	RPD
		Acetamiprid**	0.0020	U	ug/L	P391438	
		Endothall**	0.25	U	ug/L	P391110	MS
		Glufosinate**	0.10	U	ug/L	P391110	
		Glyphosate**	0.10	U	ug/L	P391110	
		Afidopyropen**	0.0020	U	ug/L	P391438	
		Bentazon	8.0E-04	U	ug/L	P391438	
		Benzovindiflupyr**	0.0020	U	ug/L	P391438	
		Carbamazepine**	8.0E-04	U	ug/L	P391438	
		Clothianidin**	0.0020	U	ug/L	P391438	
		Dinotefuran**	0.0020	U	ug/L	P391438	
		Diuron	0.0020	U	ug/L	P391438	
		Fenuron	0.016	U	ug/L	P391438	
		Fluridone**	8.0E-04	U	ug/L	P391438	
		Imazapyr**	0.0040	U	ug/L	P391438	MS
		Hydrocodone**	0.0020	U	ug/L	P391438	
		Ibuprofen**	0.020	U	ug/L	P391438	
		Imidacloprid	0.0020	U	ug/L	P391438	
		Linuron	0.0040	U	ug/L	P391438	
		Mandestrobin**	0.0020	U	ug/L	P391438	
		MCPP	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**	0.0020	U	ug/L	P391438	
		Tolfenpyrad**	0.0020	U	ug/L	P391438	
		Triclopyr**	0.0040	U	ug/L	P391438	
2212469	EPA 200.7 Rev. 4.4	Barium	1.0	U	ug/L	P391181	

Field ID: FB12102020

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2212469	EPA 200.7 Rev. 4.4	Calcium	0.075	U	mg/L	P391181	
		Iron	30	U	ug/L	P391181	
		Magnesium	0.040	U	mg/L	P391181	
		Potassium	0.30	U	mg/L	P391181	
		Sodium	0.50	U	mg/L	P391181	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P391181	
		Aluminum	5.0	U	ug/L	P391181	
		Antimony	0.050	U	ug/L	P391181	
		Arsenic	0.050	U	ug/L	P391181	
		Beryllium	0.010	U	ug/L	P391181	
		Boron**	2.0	U	ug/L	P391181	
		Cadmium	0.020	U	ug/L	P391181	
		Chromium	0.40	U	ug/L	P391181	
		Copper	0.40	U	ug/L	P391181	
		Lead	0.20	U	ug/L	P391181	
		Nickel	0.50	U	ug/L	P391181	
		Selenium	0.20	U	ug/L	P391181	
		Silver	0.010	U	ug/L	P391181	
		Thallium	0.10	U	ug/L	P391181	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Bromide: Batch relative percent difference and matrix spike recoveries 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 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: MS accuracy for glyphosate could not be assessed due to high concentration of parameter in the spiked 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.

EPA 200.8 Rev. 5.4: Batch matrix spike recoveries for aluminum are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

Sample Location: Pellicer 1.3 Mi Downstream Of I95

Collection Date/Time: 12/10/2020 12:40

Field ID: G5NE0593

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2212474	EPA 180.1 Rev. 2.0	Turbidity	2.1		NTU	P391053	
	EPA 300.0 Rev. 2.1	Bromide	0.87		mg Br/L	P391241	
	SM 2320 B-2011	Total Alkalinity	45		mg CaCO3/L	P391136	
	SM 2540 D-2011	TSS	2	I	mg/L	P391526	
	SM 4500 F-C-2011	Fluoride	0.072	I	mg F/L	P391138	
2212475	EPA 350.1 Rev. 2.0	Ammonia-N	0.018		mg N/L	P391484	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.80		mg N/L	P391451	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.018		mg N/L	P391152	
	EPA 365.1 Rev. 2.0	Total-P	0.051		mg P/L	P391158	
	SM 5310 B-2011	Organic Carbon	31		mg C/L	P391280	
2212476	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.034		mg P/L	P391050	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Bromide: Batch relative percent difference and matrix spike recoveries 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 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable 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: P391053

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P391181

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
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P391276

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: P391181

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 200.8 Rev. 5.4
Batch ID: P391276

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
Cadmium	0.020	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P391276

Component	Result	Code	Units
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: P391241

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P391259

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391484

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391491

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P391451

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P391454

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P391152

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P391399

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: P391108

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P391158

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P391050

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P391051

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

Reference Method: EPA 8321B
Batch ID: P391110

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
Afidopyrophen	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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P391438

Component	Result	Code	Units
Mandestrobin	0.0020	U	ug/L
MCP	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 2320 B-2011
Batch ID: P391136

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

Reference Method: SM 2320 B-2011
Batch ID: P391137

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

Reference Method: SM 2540 D-2011
Batch ID: P391526

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P391530

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P391138

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-2011
Batch ID: P391139

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P391174

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

Quality Assurance Report

Method Blank Results

Reference Method: SM 5310 B-2011
Batch ID: P391280

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: P391181

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	97.5		P	85 - 115
Calcium	98.3		P	85 - 115
Iron	97.9		P	85 - 115
Magnesium	97.1		P	85 - 115
Potassium	95.1		P	85 - 115
Sodium	97.3		P	85 - 115
Zinc	92.5		P	85 - 115

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P391276

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chromium	102		P	85 - 115
Iron	105		P	85 - 115
Manganese	105		P	85 - 115
Zinc	97.6		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P391181

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	100		P	85 - 115
Antimony	102		P	85 - 115
Arsenic	96.2		P	85 - 115
Beryllium	99.1		P	85 - 115
Boron	101		P	85 - 115
Cadmium	94.2		P	85 - 115
Chromium	102		P	85 - 115
Copper	93.2		P	85 - 115
Lead	101		P	85 - 115
Nickel	92.6		P	85 - 115
Selenium	95.9		P	85 - 115
Silver	108		P	85 - 115
Thallium	99.2		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P391276

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	95.2		P	85 - 115
Antimony	102		P	85 - 115
Arsenic	98.6		P	85 - 115
Beryllium	86.5		P	85 - 115
Cadmium	96.5		P	85 - 115
Copper	93.4		P	85 - 115
Lead	103		P	85 - 115
Nickel	92.6		P	85 - 115
Selenium	94.7		P	85 - 115
Silver	103		P	85 - 115
Thallium	102		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P391241

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P391259

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391484

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391491

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P391451

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P391454

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P391152

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P391399

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P391108

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P391158

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	106		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P391050

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P391051

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

Reference Method: EPA 8321B
Batch ID: P391110

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	81.6		P	40 - 150
AMPA	101		P	40 - 150
Endothall	92.3		P	40 - 150
Glufosinate	104		P	40 - 150
Glyphosate	91.2		P	40 - 140
Sucralose	104		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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P391438

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Tolfenpyrad	49.7		P	30 - 160
Triclopyr	69.6		P	30 - 160

Reference Method: SM 2320 B-2011
Batch ID: P391136

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	93 - 104

Reference Method: SM 2320 B-2011
Batch ID: P391137

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	93 - 104

Reference Method: SM 4500 F-C-2011
Batch ID: P391138

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.8		P	90 - 106

Reference Method: SM 4500 F-C-2011
Batch ID: P391139

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	102		P	90 - 106

Reference Method: SM 5310 B-2011
Batch ID: P391174

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	106		P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P391280

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.0		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P391181

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2212388	Barium	104	104	P/P	80 - 120
2212388	Calcium	99.7		P	80 - 120
2212388	Iron	105	105	P/P	80 - 120
2212388	Magnesium	104	104	P/P	80 - 120
2212388	Potassium	102	101	P/P	80 - 120
2212388	Sodium	101		P	80 - 120
2212388	Zinc	100	99.5	P/P	80 - 120
2212526	Barium	90.0		P	80 - 120
2212526	Calcium	82.7		P	80 - 120
2212526	Iron	93.1		P	80 - 120
2212526	Magnesium	80.4		P	80 - 120
2212526	Sodium	85.8		P	80 - 120
2212526	Zinc	83.8		P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P391276

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2213309	Chromium	93.2	92.0	P/P	70 - 130
2213309	Iron	103	104	P/P	70 - 130
2213309	Manganese	98.2	100	P/P	70 - 130
2213309	Zinc	90.1	91.1	P/P	70 - 130

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P391181

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2212388	Aluminum	98.8	99.1	P/P	80 - 120
2212388	Antimony	102	102	P/P	80 - 120
2212388	Arsenic	95.5	95.7	P/P	80 - 120
2212388	Beryllium	99.6	99.9	P/P	80 - 120
2212388	Boron	98.7	98.9	P/P	80 - 120
2212388	Cadmium	93.4	95.1	P/P	80 - 120
2212388	Chromium	100	99.7	P/P	80 - 120
2212388	Copper	93.4	95.4	P/P	80 - 120
2212388	Lead	101	102	P/P	80 - 120
2212388	Nickel	91.3	92.4	P/P	80 - 120
2212388	Selenium	93.5	94.8	P/P	80 - 120
2212388	Silver	106	107	P/P	80 - 120
2212388	Thallium	101	103	P/P	80 - 120
2212526	Antimony	102		P	80 - 120
2212526	Arsenic	94.4		P	80 - 120
2212526	Beryllium	95.4		P	80 - 120
2212526	Boron	98.6		P	80 - 120
2212526	Cadmium	93.5		P	80 - 120
2212526	Chromium	96.1		P	80 - 120
2212526	Copper	92.7		P	80 - 120
2212526	Lead	99.4		P	80 - 120
2212526	Nickel	91.7		P	80 - 120
2212526	Selenium	92.4		P	80 - 120
2212526	Silver	105		P	80 - 120
2212526	Thallium	98.9		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P391276

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2213309	Aluminum	106	106	P/P	70 - 130
2213309	Antimony	110	112	P/P	70 - 130
2213309	Arsenic	108	109	P/P	70 - 130
2213309	Beryllium	90.4	92.8	P/P	70 - 130
2213309	Cadmium	94.4	93.6	P/P	70 - 130
2213309	Copper	117	119	P/P	70 - 130
2213309	Lead	109	110	P/P	70 - 130
2213309	Nickel	105	107	P/P	70 - 130
2213309	Selenium	100	102	P/P	70 - 130
2213309	Silver	94.5	94.8	P/P	70 - 130
2213309	Thallium	106	108	P/P	70 - 130

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P391259

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2212333	Sulfate	101		P	90 - 110
2212500	Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391484

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2212492	Ammonia-N	99.0	99.0	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391491

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2212278	Ammonia-N	105	106	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P391454

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2212398	Kjeldahl Nitrogen	104	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P391152

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2212383	NO2NO3-N	98.5	97.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P391399

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2212397	NO2NO3-N	102	101	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P391108

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2212279	Total-P	96.4	95.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P391158

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2212433	Total-P	104	107	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P391050

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2212394	O-Phosphate-P	99.1	99.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P391051

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2212399	O-Phosphate-P	99.5	99.5	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P391110

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2212306	Acesulfame K	9.67	9.17	F/F	40 - 150
2212306	AMPA	72.0	76.9	P/P	40 - 150
2212306	Endothall	270	290	F/F	40 - 150
2212306	Glufosinate	89.8	78.1	P/P	40 - 150
2212306	Sucralose	33.6	32.3	F/F	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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P391438

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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: P391138

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2212431	Fluoride	98.4	98.4	P/P	94 - 107

Reference Method: SM 4500 F-C-2011
Batch ID: P391139

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2212395	Fluoride	103	104	P/P	94 - 107

Reference Method: SM 5310 B-2011
Batch ID: P391174

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2212274	Organic Carbon	101	101	P/P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P391280

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2212504	Organic Carbon	99.4		P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P391053

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2212382	Turbidity	3.16	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P391181

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2212388	Barium	0.619	Spike	P	0 - 20
2212388	Calcium	0.872	Spike	P	0 - 20
2212388	Iron	0.0366	Spike	P	0 - 20
2212388	Magnesium	0.376	Spike	P	0 - 20
2212388	Potassium	0.529	Spike	P	0 - 20
2212388	Sodium	1.73	Spike	P	0 - 20
2212388	Zinc	0.769	Spike	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P391276

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2213309	Chromium	1.19	Spike	P	0 - 20
2213309	Iron	1.44	Spike	P	0 - 20
2213309	Manganese	1.73	Spike	P	0 - 20
2213309	Zinc	1.08	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P391181

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2212388	Aluminum	0.241	Spike	P	0 - 20
2212388	Antimony	0.674	Spike	P	0 - 20
2212388	Arsenic	0.193	Spike	P	0 - 20
2212388	Beryllium	0.239	Spike	P	0 - 20
2212388	Boron	0.115	Spike	P	0 - 20
2212388	Cadmium	1.78	Spike	P	0 - 20
2212388	Chromium	0.626	Spike	P	0 - 20
2212388	Copper	2.10	Spike	P	0 - 20
2212388	Lead	1.05	Spike	P	0 - 20
2212388	Nickel	1.11	Spike	P	0 - 20
2212388	Selenium	1.44	Spike	P	0 - 20
2212388	Silver	1.36	Spike	P	0 - 20
2212388	Thallium	2.55	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P391276

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2213309	Aluminum	0.711	Spike	P	0 - 20
2213309	Antimony	2.39	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P391276

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2213309	Arsenic	1.15	Spike	P	0 - 20
2213309	Beryllium	2.62	Spike	P	0 - 20
2213309	Cadmium	0.878	Spike	P	0 - 20
2213309	Copper	1.78	Spike	P	0 - 20
2213309	Lead	1.05	Spike	P	0 - 20
2213309	Nickel	1.61	Spike	P	0 - 20
2213309	Selenium	1.36	Spike	P	0 - 20
2213309	Silver	0.275	Spike	P	0 - 20
2213309	Thallium	2.20	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391484

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2212492	Ammonia-N	0.0	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391491

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2212278	Ammonia-N	0.766	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P391451

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2212492	Kjeldahl Nitrogen	3.98	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P391454

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2212398	Kjeldahl Nitrogen	0.325	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P391152

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2212383	NO2NO3-N	0.619	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P391399

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2212397	NO2NO3-N	0.387	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P391108

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2212279	Total-P	0.964	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P391158

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2212433	Total-P	2.46	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P391050

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2212394	O-Phosphate-P	0.302	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P391051

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2212399	O-Phosphate-P	0.0	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P391110

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2212306	Acesulfame K	5.30	Spike	P	0 - 30
2212306	AMPA	6.67	Spike	P	0 - 30
2212306	Endothall	7.37	Spike	P	0 - 30
2212306	Glufosinate	13.9	Spike	P	0 - 30
2212306	Glyphosate	12.0	Spike	P	0 - 30
2212306	Sucralose	3.13	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	Afidopyropen	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

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	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
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: P391136

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2212431	Total Alkalinity	1.03	Sample	P	0 - 8.1

Reference Method: SM 2320 B-2011
 Batch ID: P391137

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2212395	Total Alkalinity	1.88	Sample	P	0 - 8.1

Reference Method: SM 4500 F-C-2011
 Batch ID: P391138

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2212431	Fluoride	0.0	Spike	P	0 - 2.8

Reference Method: SM 4500 F-C-2011
 Batch ID: P391139

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2212395	Fluoride	0.946	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011
 Batch ID: P391174

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2212274	Organic Carbon	0.372	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 5310 B-2011
Batch ID: P391280

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2212504	Organic Carbon	0.651	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2212466
Field Sample ID: G5NE0592

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	66.6	P	30 - 160
EPA 8321B	Acetaminophen-d4	64.4	P	30 - 160
EPA 8321B	Carbamazepine-d10	50.7	P	30 - 160
EPA 8321B	Diuron-d6	54.3	P	30 - 160
EPA 8321B	Endothall-d6	1030	F	40 - 160
EPA 8321B	Endothall-d6	1030	F	40 - 160
EPA 8321B	Glyphosate 13C 15N	200	F	40 - 160
EPA 8321B	Glyphosate 13C 15N	200	F	40 - 160
EPA 8321B	Ibuprofen-d3	52.3	P	30 - 160
EPA 8321B	Primidone-d5	76.7	P	30 - 160
EPA 8321B	Sucralose-d6	33.4	P	30 - 160
EPA 8321B	Sucralose-d6	33.4	P	30 - 160

Lab Sample ID: 2212467
Field Sample ID: FB12102020

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	60.2	P	30 - 160
EPA 8321B	Acetaminophen-d4	75.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	59.0	P	30 - 160
EPA 8321B	Diuron-d6	59.0	P	30 - 160
EPA 8321B	Endothall-d6	93.6	P	40 - 160
EPA 8321B	Endothall-d6	93.6	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	108	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	108	P	40 - 160
EPA 8321B	Ibuprofen-d3	46.8	P	30 - 160
EPA 8321B	Primidone-d5	86.1	P	30 - 160
EPA 8321B	Sucralose-d6	100	P	30 - 160
EPA 8321B	Sucralose-d6	100	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A102545

Included Lab Sample IDs: 2212454, 2212456, 2212474

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A102546

Included Lab Sample IDs: 2212458, 2212476, 2212487

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	101	98.5	P/P	90 - 110
O-Phosphate-P	98.9	99.0	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A102568

Included Lab Sample IDs: 2212466, 2212467

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	84.2	92.1	P/P	60 - 160
AMPA	79.1	107	P/P	60 - 160
Endothall	95.6	96.3	P/P	60 - 160
Glufosinate	76.8	81.4	P/P	60 - 160
Glyphosate	74.0	103	P/P	60 - 160

Reference Method: SM 2320 B-2011

Run ID: A102580

Included Lab Sample IDs: 2212454, 2212456, 2212474

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	103	99.9	P/P	90 - 110
Total Alkalinity	103	101	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A102580

Included Lab Sample IDs: 2212454, 2212456, 2212474

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	101	102	P/P	90 - 110
Fluoride	102	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A102586

Included Lab Sample IDs: 2212457, 2212475

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

Reference Method: SM 5310 B-2011

Run ID: A102590

Included Lab Sample IDs: 2212455

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A102613

Included Lab Sample IDs: 2212454, 2212456, 2212474

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A102617

Included Lab Sample IDs: 2212454

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sulfate	99.3	99.6	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A102621

Included Lab Sample IDs: 2212457, 2212475

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.1	96.8	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A102622

Included Lab Sample IDs: 2212466, 2212467

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	101	103	P/P	60 - 160

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A102629

Included Lab Sample IDs: 2212469

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Antimony	100	100	P/P	90 - 110
Arsenic	97.0	96.8	P/P	90 - 110
Beryllium	104	104	P/P	90 - 110
Boron	101	102	P/P	90 - 110
Cadmium	96.7	96.5	P/P	90 - 110
Chromium	102	101	P/P	90 - 110
Copper	93.2	92.5	P/P	90 - 110
Lead	99.2	98.2	P/P	90 - 110
Nickel	93.0	91.8	P/P	90 - 110
Selenium	97.6	98.1	P/P	90 - 110
Silver	104	103	P/P	90 - 110
Thallium	101	101	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A102635

Included Lab Sample IDs: 2212469

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	101	101	P/P	95 - 105
Calcium	97.8	97.6	P/P	95 - 105
Iron	101	98.6	P/P	95 - 105
Magnesium	100	97.2	P/P	95 - 105
Potassium	100	98.7	P/P	95 - 105

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A102635

Included Lab Sample IDs: 2212469

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sodium	99.2	99.0	P/P	95 - 105
Zinc	97.4	96.6	P/P	95 - 105

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A102653

Included Lab Sample IDs: 2212468

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chromium	99.2	95.6	P/P	90 - 110
Iron	100	100	P/P	90 - 110
Manganese	103	102	P/P	90 - 110
Zinc	96.5	91.4	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A102654

Included Lab Sample IDs: 2212469

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A102660

Included Lab Sample IDs: 2212455

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A102672

Included Lab Sample IDs: 2212455

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A102686

Included Lab Sample IDs: 2212455, 2212457, 2212475

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.2	98.8	P/P	90 - 110
Ammonia-N	99.0	99.6	P/P	90 - 110
Ammonia-N	99.6	97.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A102694

Included Lab Sample IDs: 2212455, 2212457, 2212475

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	105	98.4	P/P	90 - 110
Kjeldahl Nitrogen	98.4	103	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A102718

Included Lab Sample IDs: 2212466, 2212467

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	76.1	78.8	P/P	50 - 150
Acetaminophen	108	128	P/P	60 - 160
Acetamiprid	108	128	P/P	50 - 150
Afidopyropen	89.1	119	P/P	50 - 150
Bentazon	107	137	P/P	50 - 160
Benzovindiflupyr	110	104	P/P	50 - 150
Carbamazepine	112	104	P/P	60 - 150
Clothianidin	126	113	P/P	60 - 150
Dinotefuran	104	108	P/P	50 - 150
Diuron	103	91.2	P/P	60 - 160
Fenuron	109	110	P/P	60 - 150
Fluridone	106	115	P/P	60 - 160
Hydrocodone	104	104	P/P	60 - 150
Ibuprofen	110	81.6	P/P	50 - 160
Imazapyr	84.0	83.1	P/P	50 - 150
Imidacloprid	100	102	P/P	60 - 150
Linuron	94.8	114	P/P	60 - 150
Mandestrobin	111	107	P/P	50 - 150
MCPP	84.1	87.1	P/P	50 - 150
Naproxen	93.2	98.0	P/P	50 - 160
Primidone	104	104	P/P	60 - 150
Pyraclostrobin	109	110	P/P	60 - 150
Thiamethoxam	110	108	P/P	50 - 150
Tolfenpyrad	114	107	P/P	60 - 150
Triclopyr	99.3	98.2	P/P	50 - 150

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A102722

Included Lab Sample IDs: 2212475

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.7	99.9	P/P	85 - 115

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A102725

Included Lab Sample IDs: 2212457

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.2	99.0	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A102772

Included Lab Sample IDs: 2212468

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	100	104	P/P	90 - 110
Antimony	100	103	P/P	90 - 110
Arsenic	98.4	100	P/P	90 - 110
Beryllium	98.6	95.8	P/P	90 - 110
Cadmium	97.2	98.3	P/P	90 - 110
Copper	98.2	103	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A102772

Included Lab Sample IDs: 2212468

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Lead	99.9	100	P/P	90 - 110
Nickel	95.1	97.9	P/P	90 - 110
Selenium	95.7	99.2	P/P	90 - 110
Thallium	102	103	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A102795

Included Lab Sample IDs: 2212468

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Silver	96.9	96.8	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						3.16	
EPA 200.7 Rev. 4.4	Barium	97.5	104	104	90.0			0.619
	Calcium	98.3	99.7	82.7				0.872
	Chromium	102	92.0	93.2				1.19
	Iron	97.9	105	105	93.1			0.0366
	Iron	105	103	104				1.44
	Magnesium	97.1	104	104	80.4			0.376
	Manganese	105	98.2	100				1.73
	Potassium	95.1	102	101				0.529
	Sodium	97.3	101	85.8				1.73
	Zinc	92.5	100	99.5	83.8			0.769
	Zinc	97.6	90.1	91.1				1.08
EPA 200.8 Rev. 5.4	Aluminum	100	98.8	99.1				0.241
	Aluminum	95.2	106	106				0.711
	Antimony	102	102	102	102			0.674
	Antimony	102	110	112				2.39
	Arsenic	96.2	95.5	95.7	94.4			0.193
	Arsenic	98.6	108	109				1.15
	Beryllium	99.1	99.6	99.9	95.4			0.239
	Beryllium	86.5	90.4	92.8				2.62
	Boron	101	98.7	98.9	98.6			0.115
	Cadmium	94.2	93.4	95.1	93.5			1.78
	Cadmium	96.5	94.4	93.6				0.878
	Chromium	102	100	99.7	96.1			0.626
	Copper	93.2	93.4	95.4	92.7			2.10
	Copper	93.4	117	119				1.78
	Lead	101	101	102	99.4			1.05
	Lead	103	109	110				1.05
	Nickel	92.6	91.3	92.4	91.7			1.11
	Nickel	92.6	105	107				1.61
	Selenium	95.9	93.5	94.8	92.4			1.44
	Selenium	94.7	100	102				1.36
	Silver	108	106	107	105			1.36
	Silver	103	94.5	94.8				0.275
	Thallium	99.2	101	103	98.9			2.55
	Thallium	102	106	108				2.20
EPA 300.0 Rev. 2.1	Bromide	102						
	Sulfate	102	101	101				
EPA 350.1 Rev. 2.0	Ammonia-N	96.2	99.0	99.0				0.0
	Ammonia-N	97.4	105	106				0.766
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	102						3.98
	Kjeldahl Nitrogen	96.9	104	103				0.325
EPA 353.2 Rev. 2.0	NO2NO3-N	99.0	98.5	97.5				0.619
	NO2NO3-N	102	102	101				0.387
EPA 365.1 Rev. 2.0	Total-P	103	96.4	95.5				0.964
	Total-P	106	107	104				2.46
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.3	99.1	99.4				0.302
	O-Phosphate-P	101	99.5	99.5				0.0
EPA 8321B	2,4-D	68.4	60.9	71.6				16.0
	Acesulfame K	81.6	9.67	9.17				5.30
	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	101	72.0	76.9				6.67

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	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	92.3	270	290		7.37
	Fenuron	97.0	76.9	77.6		0.995
	Fluridone	73.6	69.6	58.1		17.9
	Glufosinate	104	89.8	78.1		13.9
	Glyphosate	91.2				12.0
	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	104	33.6	32.3		3.13
	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	103			1.03	
	Total Alkalinity	103			1.88	
SM 4500 F-C-2011	Fluoride	98.8	98.4	98.4		0.0
	Fluoride	102	103	104		0.946
SM 5310 B-2011	Organic Carbon	106	101	101		0.372
	Organic Carbon	96.0	99.4			0.651

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2212454, 2212456, 2212474
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2212468, 2212469
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2212468, 2212469
EPA 300.0 Rev. 2.1	Bromide in aqueous matrices	2212454, 2212456, 2212474
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2212454
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2212455, 2212457, 2212475
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2212455, 2212457, 2212475
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2212455, 2212457, 2212475
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2212455, 2212457, 2212475
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2212458, 2212476, 2212487
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2212466, 2212467
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2212466, 2212467
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2212454, 2212456, 2212474
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2212454, 2212456, 2212474
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2212454, 2212456, 2212474

Reference Method Descriptions

Method	Description	<u>Associated Samples</u>
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2212455, 2212457, 2212475

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	12/11/2020			12/11/2020 14:53	Yen Ta	2212454, 2212456, 2212474
EPA 200.7 Rev. 4.4	12/11/2020	12/15/2020 15:45	Elliott D. Healy	12/16/2020 12:10	Betina Topolski	2212469
	12/11/2020	12/16/2020 13:10	Elliott D. Healy	12/17/2020 16:10	Betina Topolski	2212468
EPA 200.8 Rev. 5.4	12/11/2020	12/15/2020 15:45	Elliott D. Healy	12/16/2020 12:00	Alexander Thompson	2212469
	12/11/2020	12/15/2020 15:45	Elliott D. Healy	12/17/2020 14:50	Alexander Thompson	2212469
	12/11/2020	12/16/2020 13:10	Elliott D. Healy	12/23/2020 22:56	Alexander Thompson	2212468
	12/11/2020	12/16/2020 13:10	Elliott D. Healy	12/23/2020 23:26	Alexander Thompson	2212468
	12/11/2020	12/16/2020 13:10	Elliott D. Healy	12/28/2020 11:30	Alexander Thompson	2212468
EPA 300.0 Rev. 2.1	12/11/2020			12/15/2020 22:07	Lipi Saha	2212474
	12/11/2020			12/16/2020 00:31	Lipi Saha	2212454
	12/11/2020			12/16/2020 00:49	Lipi Saha	2212456
	12/11/2020			12/16/2020 02:13	Lipi Saha	2212454
EPA 350.1 Rev. 2.0	12/11/2020			12/20/2020 16:32	Ping Hua	2212475
	12/11/2020			12/20/2020 16:48	Ping Hua	2212457
	12/11/2020			12/20/2020 19:45	Ping Hua	2212455
EPA 351.2 Rev. 2.0	12/11/2020	12/18/2020 10:54	David Boose	12/20/2020 18:47	Julia Storbeck	2212457
	12/11/2020	12/18/2020 10:54	David Boose	12/20/2020 18:48	Julia Storbeck	2212475
	12/11/2020	12/18/2020 10:54	David Boose	12/20/2020 19:05	Julia Storbeck	2212455
EPA 353.2 Rev. 2.0	12/11/2020			12/15/2020 10:03	Beverly Y. Sanders	2212457
	12/11/2020			12/15/2020 10:04	Beverly Y. Sanders	2212475
	12/11/2020			12/18/2020 09:42	Beverly Y. Sanders	2212455
EPA 365.1 Rev. 2.0	12/11/2020	12/14/2020 17:37	Shengyu Wang	12/18/2020 12:33	Shengyu Wang	2212455
	12/11/2020	12/15/2020 12:45	Yen Ta	12/21/2020 15:20	Benjamin T. Nordmann	2212475
	12/11/2020	12/15/2020 12:45	Yen Ta	12/22/2020 14:16	Shengyu Wang	2212457
EPA 365.1 Rev. 2.0 dissolved	12/11/2020			12/11/2020 15:48	Ping Hua	2212476
	12/11/2020			12/11/2020 15:50	Ping Hua	2212458
	12/11/2020			12/11/2020 16:09	Ping Hua	2212487
EPA 8321B	12/11/2020	12/11/2020 11:30	Rebecca Ware	12/12/2020 07:36	Rebecca Ware	2212466
	12/11/2020	12/11/2020 11:30	Rebecca Ware	12/12/2020 07:50	Rebecca Ware	2212467
	12/11/2020	12/11/2020 11:30	Rebecca Ware	12/15/2020 21:40	Rebecca Ware	2212466
	12/11/2020	12/11/2020 11:30	Rebecca Ware	12/15/2020 21:52	Rebecca Ware	2212467
	12/11/2020	12/17/2020 11:00	Hoor Shaik	12/21/2020 05:31	Juyoung Kim	2212466
	12/11/2020	12/17/2020 11:00	Hoor Shaik	12/21/2020 06:06	Juyoung Kim	2212467
SM 2320 B-2011	12/11/2020			12/14/2020 18:03	Dale L. Simmons	2212456
	12/11/2020			12/14/2020 18:15	Dale L. Simmons	2212474
	12/11/2020			12/14/2020 23:53	Dale L. Simmons	2212454
SM 2540 D-2011	12/11/2020			12/14/2020 15:56	Yijie Li	2212454, 2212456, 2212474
SM 4500 F-C-2011	12/11/2020			12/14/2020 18:03	Dale L. Simmons	2212456
	12/11/2020			12/14/2020 18:15	Dale L. Simmons	2212474
	12/11/2020			12/14/2020 22:23	Dale L. Simmons	2212454

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 5310 B-2011	12/11/2020			12/15/2020 06:33	Touraj Touran	2212457
	12/11/2020			12/15/2020 06:47	Touraj Touran	2212475
	12/11/2020			12/15/2020 09:22	Touraj Touran	2212455