

Chemical Analysis Report

SO-DIST-2020-08-06-02

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

Event Description: **2020 SMP : Peace River/Lee Combo**
Request ID: **RQ-2020-08-03-55**
Customer: **SO-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FLDEP South District Office
2295 Victoria Ave. Suite 364
Fort Myers, FL 33901-3381
Attn: Nicole Reistad

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

Certified by: Liang Lin, Environmental Administrator

Date Certified: 28-AUG-2020 13:58

A handwritten signature in black ink, appearing to read "Liang Lin", is shown on a light-colored background.

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: 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: Peace River Estuary @ Harbour Heights

Collection Date/Time: 08/05/2020 09:50

Field ID: G3SD0148

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2189024	EPA 180.1 Rev. 2.0	Turbidity	3.8		NTU	P385742	
	EPA 300.0 Rev. 2.1	Bromide	0.94		mg Br/L	P386267	
	SM 2320 B-2011	Total Alkalinity	56		mg CaCO3/L	P385833	
	SM 2540 D-2011	TSS	2	I J	mg/L	P385853	
	SM 4500 F-C-2011	Fluoride	0.51		mg F/L	P385836	
2189025	EPA 350.1 Rev. 2.0	Ammonia-N	0.053		mg N/L	P386128	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P385881	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.16		mg N/L	P385766	
	EPA 365.1 Rev. 2.0	Total-P	0.63		mg P/L	P385827	
	SM 5310 B-2011	Organic Carbon	25		mg C/L	P385883	
2189026	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.57		mg P/L	P385740	

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample. The recovery of the QC standard was outside of the acceptable limit.

SM 4500 F-C-2011: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Peace River Above Horse Creek 2

Collection Date/Time: 08/05/2020 10:45

Field ID: G3SD0154

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2189027	EPA 180.1 Rev. 2.0	Turbidity	4.5		NTU	P385744	
	EPA 300.0 Rev. 2.1	Chloride	19		mg Cl/L	P385891	
		Sulfate	32		mg SO4/L	P385896	
	SM 2120 B-2011	Color (true)	340		PCU	P385746	
	SM 2320 B-2011	Total Alkalinity	54		mg CaCO3/L	P385833	
	SM 2540 C-2011	TDS	206	A	mg/L	P386384	
	SM 2540 D-2011	TSS	4	IAJ	mg/L	P385853	
	SM 4500 F-C-2011	Fluoride	0.51		mg F/L	P385836	
2189028	EPA 350.1 Rev. 2.0	Ammonia-N	0.032		mg N/L	P386128	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P385881	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.20		mg N/L	P385766	
	EPA 365.1 Rev. 2.0	Total-P	0.66		mg P/L	P385868	
	SM 5310 B-2011	Organic Carbon	30		mg C/L	P385884	
2189029	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.56		mg P/L	P385740	

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample. The recovery of the QC standard was outside of the acceptable limit.

SM 4500 F-C-2011: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

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

Sample Location: FB080520

Collection Date/Time: 08/05/2020 11:00

Field ID: FB080520

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2189030	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P385744	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P385891	
		Sulfate	0.20	U	mg SO4/L	P385896	
	SM 2120 B-2011	Color (true)	2.5	U	PCU	P385746	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P385857	
	SM 2540 C-2011	TDS	15	U	mg/L	P386183	
	SM 2540 D-2011	TSS	2	UJ	mg/L	P385853	
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P385837	
2189031	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	I	mg N/L	P386128	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P385881	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P385766	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P385868	
	SM 5310 B-2011	Organic Carbon	0.50	U	mg C/L	P385884	
2189032	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P385740	

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample. The recovery of the QC standard was outside of the acceptable limit.

EPA 350.1 Rev. 2.0: The result was confirmed on 08/26/2020.

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

Sample Location: Whiskey Creek @ College Blvd

Collection Date/Time: 08/05/2020 08:40

Field ID: G3SD0169

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2189039	EPA 8321B	2,4-D	14		ug/L	P385828	
		Acesulfame K**	0.15	I	ug/L	P385723	
		AMPA**	4.1		ug/L	P385723	
		Sucralose**	1.9		ug/L	P385723	
		Acetaminophen**	0.0080	U	ug/L	P385828	
		Acetamiprid**	0.0020	U	ug/L	P385828	
		Endothall**	0.25	U	ug/L	P385723	
		Glufosinate**	0.10	U	ug/L	P385723	
		Glyphosate**	26		ug/L	P385723	
		Afidopyropen**	0.0020	U	ug/L	P385828	
		Bentazon	0.27		ug/L	P385828	
		Benzovindiflupyr**	0.0020	U	ug/L	P385828	
		Carbamazepine**	0.0018	I	ug/L	P385828	
		Clothianidin**	0.0020	U	ug/L	P385828	
		Dinotefuran**	0.0020	U	ug/L	P385828	
		Diuron	0.0020	U	ug/L	P385828	
		Fenuron	0.016	U	ug/L	P385828	
		Fluridone**	0.015		ug/L	P385828	
		Imazapyr**	11		ug/L	P385828	
		Hydrocodone**	0.0020	U	ug/L	P385828	
		Ibuprofen**	0.020	U	ug/L	P385828	
		Imidacloprid	0.024		ug/L	P385828	
		Linuron	0.0040	U	ug/L	P385828	
		Mandestrobin**	0.0020	U	ug/L	P385828	
		MCPP	0.0020	U	ug/L	P385828	
		Naproxen**	0.0080	U	ug/L	P385828	
		Primidone**	0.014	I	ug/L	P385828	
		Pyraclostrobin**	0.0020	U	ug/L	P385828	
		Thiamethoxam**	0.0020	U	ug/L	P385828	
		Tolfenpyrad**	0.0020	U	ug/L	P385828	
		Triclopyr**	0.0040	U	ug/L	P385828	

Ref. Method and Comment:

EPA 8321B: The surrogate 2,4-D-d3 recovery could not be assessed due to an elevated level of 2,4-D in the sample matrix.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P385742

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P385744

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P385891

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P385896

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P386267

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P386128

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P385881

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P385766

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P385827

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P385868

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P385740

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

Reference Method: EPA 8321B
 Batch ID: P385723

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: P385828

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	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
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 2120 B-2011
Batch ID: P385746

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P385833

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

Reference Method: SM 2320 B-2011
Batch ID: P385857

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

Reference Method: SM 2540 C-2011
Batch ID: P386183

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-2011
Batch ID: P386384

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P385853

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P385836

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-2011
Batch ID: P385837

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P385883

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: P385884

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P385891

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P385896

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P386267

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P386128

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: P385881

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P385766

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	105		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P385827

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P385868

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P385740

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P385723

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	113		P	40 - 150
AMPA	95.9		P	40 - 150
Endothall	97.0		P	40 - 150
Glufosinate	82.7		P	40 - 150
Glyphosate	79.2		P	40 - 140
Sucralose	97.9		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P385828

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	115		P	30 - 160
Acetaminophen	71.5		P	30 - 160
Acetamiprid	70.2		P	30 - 160
Afidopyropen	55.5		P	30 - 160
Bentazon	67.4		P	30 - 160
Benzovindiflupyr	84.5		P	30 - 160
Carbamazepine	54.6		P	30 - 160
Clothianidin	67.8		P	30 - 160
Dinotefuran	92.3		P	30 - 160
Diuron	51.4		P	30 - 160
Fenuron	101		P	30 - 160
Fluridone	82.7		P	30 - 160
Hydrocodone	90.0		P	30 - 160
Ibuprofen	66.5		P	30 - 160
Imazapyr	73.8		P	30 - 160
Imidacloprid	88.8		P	30 - 160
Linuron	65.7		P	30 - 160
Mandestrobin	94.7		P	30 - 160
MCPP	107		P	30 - 160
Naproxen	76.6		P	30 - 160
Primidone	67.5		P	30 - 160
Pyraclostrobin	79.9		P	30 - 160
Thiamethoxam	56.4		P	30 - 160
Tolfenpyrad	48.2		P	30 - 160
Triclopyr	86.5		P	30 - 160

Reference Method: SM 2120 B-2011
Batch ID: P385746

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	102		P	85 - 115

Reference Method: SM 2320 B-2011
Batch ID: P385833

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	93 - 104

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P385857

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

Reference Method: SM 4500 F-C-2011
Batch ID: P385836

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

Reference Method: SM 4500 F-C-2011
Batch ID: P385837

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.4		P	90 - 106

Reference Method: SM 5310 B-2011
Batch ID: P385883

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

Reference Method: SM 5310 B-2011
Batch ID: P385884

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P385891

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2188987	Chloride	102		P	90 - 110
2189101	Chloride	103		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P385896

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2188987	Sulfate	103		P	90 - 110
2189101	Sulfate	104		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P386267

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2188924	Bromide	105	104	P/P	90 - 110
2189535	Bromide	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P386128

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2188991	Ammonia-N	100	98.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P385881

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2189045	Kjeldahl Nitrogen	103	106	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P385766

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2189025	NO2NO3-N	99.5	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P385827

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2188920	Total-P	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P385740

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2189046	O-Phosphate-P	98.6	99.1	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P385723

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2189008	Acesulfame K	119	117	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
 Batch ID: P385723

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2189008	AMPA	115	115	P/P	40 - 150
2189008	Endothall	111	112	P/P	40 - 150
2189008	Glufosinate	93.3	92.3	P/P	40 - 150
2189008	Glyphosate	64.6	75.0	P/P	40 - 140
2189008	Sucralose	59.2	57.1	P/P	40 - 150

Reference Method: EPA 8321B
 Batch ID: P385828

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2189009	2,4-D	119	111	P/P	30 - 160
2189009	Acetaminophen	89.0	82.7	P/P	30 - 160
2189009	Acetamiprid	67.6	66.7	P/P	30 - 160
2189009	Afidopyropen	51.2	47.7	P/P	30 - 160
2189009	Bentazon	61.9	49.0	P/P	30 - 160
2189009	Benzovindiflupyr	75.5	73.5	P/P	30 - 160
2189009	Carbamazepine	49.2	47.9	P/P	30 - 160
2189009	Clothianidin	59.5	60.9	P/P	30 - 160
2189009	Dinotefuran	89.2	91.0	P/P	30 - 160
2189009	Diuron	44.6	43.1	P/P	30 - 160
2189009	Fenuron	89.9	88.5	P/P	30 - 160
2189009	Fluridone	79.9	77.8	P/P	30 - 160
2189009	Hydrocodone	84.7	88.7	P/P	30 - 160
2189009	Ibuprofen	63.6	58.2	P/P	30 - 160
2189009	Imazapyr	95.3	76.6	P/P	30 - 160
2189009	Imidacloprid	96.4	101	P/P	30 - 160
2189009	Linuron	61.6	55.7	P/P	30 - 160
2189009	Mandestrobin	78.4	79.6	P/P	30 - 160
2189009	MCPP	99.0	97.1	P/P	30 - 160
2189009	Naproxen	61.1	59.5	P/P	30 - 160
2189009	Primidone	65.4	66.6	P/P	30 - 160
2189009	Pyraclostrobin	70.5	73.2	P/P	30 - 160
2189009	Thiamethoxam	77.0	80.7	P/P	30 - 160
2189009	Tolfenpyrad	45.0	45.0	P/P	30 - 160
2189009	Triclopyr	86.0	91.3	P/P	30 - 160

Reference Method: SM 4500 F-C-2011
 Batch ID: P385837

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2189089	Fluoride	100	100	P/P	94 - 107

Reference Method: SM 5310 B-2011
 Batch ID: P385883

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2188901	Organic Carbon	102	102	P/P	85 - 115

Reference Method: SM 5310 B-2011
 Batch ID: P385884

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P385884

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2189164	Organic Carbon	100	102	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P385742

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2188757	Turbidity	0.635	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P385744

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2188990	Turbidity	4.61	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P385891

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2188987	Chloride	0.277	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P385896

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2188987	Sulfate	0.935	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P386267

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2188924	Bromide	1.43	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P386128

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2188991	Ammonia-N	1.30	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P385881

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2189045	Kjeldahl Nitrogen	2.16	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P385766

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2189025	NO2NO3-N	0.275	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P385827

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2188920	Total-P	0.0460	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P385868

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2189028	Total-P	0.671	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P385740

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2189046	O-Phosphate-P	0.461	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P385723

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2189008	Acesulfame K	1.30	Spike	P	0 - 30
2189008	AMPA	0.419	Spike	P	0 - 30
2189008	Endothall	1.08	Spike	P	0 - 30
2189008	Glufosinate	1.05	Spike	P	0 - 30
2189008	Glyphosate	14.9	Spike	P	0 - 30
2189008	Sucralose	3.50	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P385828

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2189009	2,4-D	6.43	Spike	P	0 - 30
2189009	Acetaminophen	7.34	Spike	P	0 - 30
2189009	Acetamiprid	1.28	Spike	P	0 - 30
2189009	Afidopyropen	7.00	Spike	P	0 - 30
2189009	Bentazon	15.8	Spike	P	0 - 30
2189009	Benzovindiflupyr	2.65	Spike	P	0 - 30
2189009	Carbamazepine	2.77	Spike	P	0 - 30
2189009	Clothianidin	2.34	Spike	P	0 - 30
2189009	Dinotefuran	1.95	Spike	P	0 - 30
2189009	Diuron	3.51	Spike	P	0 - 30
2189009	Fenuron	1.60	Spike	P	0 - 30
2189009	Fluridone	2.67	Spike	P	0 - 30
2189009	Hydrocodone	4.56	Spike	P	0 - 30
2189009	Ibuprofen	8.90	Spike	P	0 - 30
2189009	Imazapyr	21.8	Spike	P	0 - 30
2189009	Imidacloprid	4.46	Spike	P	0 - 30
2189009	Linuron	10.1	Spike	P	0 - 30
2189009	Mandestrobin	1.53	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P385828

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2189009	MCP	1.98	Spike	P	0 - 30
2189009	Naproxen	2.62	Spike	P	0 - 30
2189009	Primidone	1.82	Spike	P	0 - 30
2189009	Pyraclostrobin	3.79	Spike	P	0 - 30
2189009	Thiamethoxam	4.72	Spike	P	0 - 30
2189009	Tolfenpyrad	0.0506	Spike	P	0 - 30
2189009	Triclopyr	5.89	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P385746

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2188993	Color (true)	1.65	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P385833

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2188775	Total Alkalinity	0.0281	Sample	P	0 - 8.1

Reference Method: SM 2320 B-2011
Batch ID: P385857

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2189215	Total Alkalinity	1.18	Sample	P	0 - 8.1

Reference Method: SM 2540 C-2011
Batch ID: P386183

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2189516	TDS	5.35	Sample	P	0 - 10

Reference Method: SM 2540 C-2011
Batch ID: P386384

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2189027	TDS	2.43	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P385836

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2188775	Fluoride	0.966	Spike	P	0 - 2.8

Quality Assurance Report Precision

Reference Method: SM 4500 F-C-2011
Batch ID: P385837

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2189089	Fluoride	0.0	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011
Batch ID: P385883

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2188901	Organic Carbon	0.0306	Spike	P	0 - 20

Reference Method: SM 5310 B-2011
Batch ID: P385884

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2189164	Organic Carbon	1.72	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2189039

Field Sample ID: G3SD0169

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	64.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	39.1	P	30 - 160
EPA 8321B	Diuron-d6	43.3	P	30 - 160
EPA 8321B	Endothall-d6	102	P	30 - 160
EPA 8321B	Endothall-d6	102	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	64.8	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	64.8	P	30 - 160
EPA 8321B	Ibuprofen-d3	69.1	P	30 - 160
EPA 8321B	Primidone-d5	60.7	P	30 - 160
EPA 8321B	Sucralose-d6	80.8	P	30 - 160
EPA 8321B	Sucralose-d6	80.8	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: 100407
Included Lab Sample IDs: 2189039

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	104	124	P/P	50 - 150
Acetaminophen	123	131	P/P	60 - 160
Acetamiprid	102	123	P/P	50 - 150
Afidopyropen	97.5	107	P/P	50 - 150
Bentazon	77.6	92.9	P/P	50 - 160
Benzovindiflupyr	118	119	P/P	50 - 150
Carbamazepine	111	111	P/P	60 - 150
Clothianidin	115	106	P/P	60 - 150
Dinotefuran	105	114	P/P	50 - 150
Diuron	111	108	P/P	60 - 160
Fenuron	118	126	P/P	60 - 150
Fluridone	113	111	P/P	60 - 160
Hydrocodone	134	127	P/P	60 - 150
Ibuprofen	72.5	80.9	P/P	50 - 160
Imazapyr	98.3	108	P/P	50 - 150
Imidacloprid	105	105	P/P	60 - 150
Linuron	121	118	P/P	60 - 150
Mandestrobin	118	110	P/P	50 - 150
MCPP	95.6	94.6	P/P	50 - 150
Naproxen	139	101	P/P	50 - 160
Primidone	92.8	97.6	P/P	60 - 150
Pyraclostrobin	113	103	P/P	60 - 150
Thiamethoxam	112	115	P/P	50 - 150
Tolfenpyrad	106	111	P/P	60 - 150
Triclopyr	88.0	90.9	P/P	50 - 150

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A100321
Included Lab Sample IDs: 2189026, 2189029, 2189032

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.5	98.0	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A100322
Included Lab Sample IDs: 2189024, 2189027, 2189030

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

Reference Method: SM 2120 B-2011
Run ID: A100323
Included Lab Sample IDs: 2189027, 2189030

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	103	103	P/P	90 - 115
Color (true)	103	104	P/P	90 - 115

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A100340

Included Lab Sample IDs: 2189025, 2189028, 2189031

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	102	102	P/P	90 - 110
NO2NO3-N	102	103	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A100346

Included Lab Sample IDs: 2189039

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	98.7	104	P/P	60 - 160
Endothall	111	103	P/P	60 - 160

Reference Method: SM 2320 B-2011

Run ID: A100371

Included Lab Sample IDs: 2189024, 2189027

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	97.9	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A100371

Included Lab Sample IDs: 2189024, 2189027, 2189030

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	100	P/P	90 - 110
Fluoride	100	101	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A100379

Included Lab Sample IDs: 2189030

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	98.0	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A100385

Included Lab Sample IDs: 2189025, 2189028, 2189031

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	100	101	P/P	90 - 110
Organic Carbon	101	100	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A100386

Included Lab Sample IDs: 2189027, 2189030

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A100390
Included Lab Sample IDs: 2189039

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	96.0	101	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A100391
Included Lab Sample IDs: 2189039

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	98.3	107	P/P	60 - 160
Glufosinate	91.3	100	P/P	60 - 160
Glyphosate	80.8	91.2	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A100396
Included Lab Sample IDs: 2189025

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A100415
Included Lab Sample IDs: 2189028

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A100416
Included Lab Sample IDs: 2189025, 2189028, 2189031

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A100427
Included Lab Sample IDs: 2189031

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.5	98.0	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A100497
Included Lab Sample IDs: 2189025, 2189028, 2189031

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	96.4	98.0	P/P	90 - 110
Ammonia-N	98.0	98.0	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A100541

Included Lab Sample IDs: 2189024

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bromide	99.6	101	P/P	90 - 110

* Pass/Fail determinations are made for each bracketing calibration verification check.

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity						0.635	
	Turbidity						4.61	
EPA 300.0 Rev. 2.1	Bromide	106	105	104	101			1.43
	Chloride	103	102	103			0.277	
	Sulfate	104	103	104			0.935	
EPA 350.1 Rev. 2.0	Ammonia-N	97.4	100	98.8				1.30
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	106	103	106				2.16
EPA 353.2 Rev. 2.0	NO2NO3-N	105	99.5	100				0.275
EPA 365.1 Rev. 2.0	Total-P	99.2	102	102				0.0460
	Total-P	101						0.671
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	102	98.6	99.1				0.461
EPA 8321B	2,4-D	115	119	111				6.43
	Acesulfame K	113	119	117				1.30
	Acetaminophen	71.5	89.0	82.7				7.34
	Acetamiprid	70.2	67.6	66.7				1.28
	Afidopyropen	55.5	51.2	47.7				7.00
	AMPA	95.9	115	115				0.419
	Bentazon	67.4	61.9	49.0				15.8
	Benzovindiflupyr	84.5	75.5	73.5				2.65
	Carbamazepine	54.6	49.2	47.9				2.77
	Clothianidin	67.8	59.5	60.9				2.34
	Dinotefuran	92.3	89.2	91.0				1.95
	Diuron	51.4	44.6	43.1				3.51
	Endothall	97.0	111	112				1.08
	Fenuron	101	89.9	88.5				1.60
	Fluridone	82.7	79.9	77.8				2.67
	Glufosinate	82.7	93.3	92.3				1.05
	Glyphosate	79.2	64.6	75.0				14.9
	Hydrocodone	90.0	84.7	88.7				4.56
	Ibuprofen	66.5	63.6	58.2				8.90
	Imazapyr	73.8	95.3	76.6				21.8
	Imidacloprid	88.8	96.4	101				4.46
	Linuron	65.7	61.6	55.7				10.1
	Mandestrobin	94.7	78.4	79.6				1.53
	MCPPP	107	99.0	97.1				1.98
	Naproxen	76.6	61.1	59.5				2.62
	Primidone	67.5	65.4	66.6				1.82
	Pyraclostrobin	79.9	70.5	73.2				3.79
	Sucralose	97.9	59.2	57.1				3.50
	Thiamethoxam	56.4	77.0	80.7				4.72
	Tolfenpyrad	48.2	45.0	45.0				0.0506
	Triclopyr	86.5	86.0	91.3				5.89
SM 2120 B-2011	Color (true)	102					1.65	
SM 2320 B-2011	Total Alkalinity	101					0.0281	
	Total Alkalinity	103					1.18	
SM 2540 C-2011	TDS						5.35	
	TDS						2.43	
SM 4500 F-C-2011	Fluoride	98.4						0.966
	Fluoride	98.4	100	100				0.0
SM 5310 B-2011	Organic Carbon	100	102	102				0.0306
	Organic Carbon	102	100	102				1.72

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2189024, 2189027, 2189030
EPA 300.0 Rev. 2.1	Bromide in aqueous matrices	2189024
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2189027, 2189030
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2189027, 2189030
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2189025, 2189028, 2189031
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2189025, 2189028, 2189031
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2189025, 2189028, 2189031
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2189025, 2189028, 2189031
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2189026, 2189029, 2189032
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2189039
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2189039
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2189027, 2189030
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2189024, 2189027, 2189030
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2189027, 2189030
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2189024, 2189027, 2189030
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2189024, 2189027, 2189030
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2189025, 2189028, 2189031

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	08/06/2020			08/06/2020 16:18	Blanca Fach	2189024, 2189027, 2189030
EPA 300.0 Rev. 2.1	08/06/2020			08/08/2020 19:24	Julia Storbeck	2189027
	08/06/2020			08/08/2020 19:36	Julia Storbeck	2189030
	08/06/2020			08/15/2020 21:46	Julia Storbeck	2189024
EPA 350.1 Rev. 2.0	08/06/2020			08/12/2020 13:53	Virginia P. Brown	2189025
	08/06/2020			08/12/2020 13:55	Virginia P. Brown	2189028
	08/06/2020			08/12/2020 14:03	Virginia P. Brown	2189031
EPA 351.2 Rev. 2.0	08/06/2020	08/11/2020 08:40	Sima Feizi	08/12/2020 14:18	Jhamieka S. Greenwood	2189025
	08/06/2020	08/11/2020 08:40	Sima Feizi	08/12/2020 14:20	Jhamieka S. Greenwood	2189028
	08/06/2020	08/11/2020 08:40	Sima Feizi	08/12/2020 14:21	Jhamieka S. Greenwood	2189031
EPA 353.2 Rev. 2.0	08/06/2020			08/07/2020 10:21	Beverly Y. Sanders	2189028
	08/06/2020			08/07/2020 10:22	Beverly Y. Sanders	2189031
	08/06/2020			08/07/2020 10:42	Beverly Y. Sanders	2189025
EPA 365.1 Rev. 2.0	08/06/2020	08/10/2020 11:00	Shengyu Wang	08/11/2020 13:10	Benjamin T. Nordmann	2189025
	08/06/2020	08/11/2020 11:28	Yen Ta	08/12/2020 14:37	Benjamin T. Nordmann	2189028
	08/06/2020	08/11/2020 11:28	Yen Ta	08/13/2020 08:16	Lipi Saha	2189031
EPA 365.1 Rev. 2.0 dissolved	08/06/2020			08/06/2020 16:02	Samantha Davila	2189026
	08/06/2020			08/06/2020 16:03	Samantha Davila	2189029
	08/06/2020			08/06/2020 16:04	Samantha Davila	2189032
EPA 8321B	08/06/2020	08/06/2020 13:00	Rebecca Ware	08/06/2020 15:16	Rebecca Ware	2189039
	08/06/2020	08/06/2020 13:00	Rebecca Ware	08/07/2020 12:37	Rebecca Ware	2189039
	08/06/2020	08/06/2020 13:00	Rebecca Ware	08/11/2020 06:22	Rebecca Ware	2189039
	08/06/2020	08/06/2020 13:00	Rebecca Ware	08/11/2020 12:06	Rebecca Ware	2189039
	08/06/2020	08/11/2020 09:00	Hoor Shaik	08/12/2020 15:01	Juyoung Kim	2189039
	08/06/2020	08/11/2020 09:00	Hoor Shaik	08/12/2020 22:32	Juyoung Kim	2189039
SM 2120 B-2011	08/06/2020			08/06/2020 16:10	Madeline Gruver	2189030
	08/06/2020			08/06/2020 16:36	Madeline Gruver	2189027
SM 2320 B-2011	08/06/2020			08/07/2020 18:25	Dale L. Simmons	2189027
	08/06/2020			08/07/2020 18:37	Dale L. Simmons	2189024
	08/06/2020			08/11/2020 00:06	Dale L. Simmons	2189030
SM 2540 C-2011	08/06/2020			08/07/2020 17:33	Madeline Gruver	2189027
	08/06/2020			08/12/2020 10:04	Yijie Li	2189030
SM 2540 D-2011	08/06/2020			08/07/2020 18:09	Madeline Gruver	2189024, 2189027, 2189030
SM 4500 F-C-2011	08/06/2020			08/07/2020 18:25	Dale L. Simmons	2189027
	08/06/2020			08/07/2020 18:37	Dale L. Simmons	2189024
	08/06/2020			08/07/2020 20:57	Dale L. Simmons	2189030
SM 5310 B-2011	08/06/2020			08/11/2020 02:16	David Boose	2189025
	08/06/2020			08/11/2020 04:11	David Boose	2189028
	08/06/2020			08/11/2020 04:23	David Boose	2189031