

Chemical Analysis Report

SO-DIST-2021-08-04-01

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

Event Description: **2021 SMP: Hatchee Cricks**

Request ID: **RQ-2021-08-09-68**

Customer: **SO-DIST**

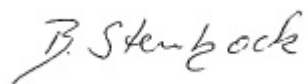
Project ID: **SMP**

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

Date Certified: 30-AUG-2021 14:37



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: PalmCreek@LeeCivicCtr

Collection Date/Time: 08/03/2021 08:25

Field ID: G3SD0190

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2267226	EPA 8321B	2,4-D	0.44		ug/L	P402147	
		Acesulfame K	0.12	I	ug/L	P401931	
		2,4,5-T	0.0040	U	ug/L	P402147	
		AMPA	0.14	I	ug/L	P401931	
		Acetaminophen	0.0080	U	ug/L	P402147	
		Acetamiprid	0.0020	U	ug/L	P402147	
		Endothall	0.25	U	ug/L	P401931	
		Glufosinate	0.10	U	ug/L	P401931	
		Glyphosate	0.19	I	ug/L	P401931	
		Afidopyropen	0.0020	U	ug/L	P402147	
		Bentazon	8.0E-04	U	ug/L	P402147	
		Sucralose	0.10		ug/L	P401931	
		Benzovindiflupyr	0.0020	U	ug/L	P402147	
		Carbamazepine	8.0E-04	U	ug/L	P402147	
		Clothianidin	0.0020	U	ug/L	P402147	
		Dinotefuran	0.0020	U	ug/L	P402147	
		Diuron	0.0020	U	ug/L	P402147	
		Fenuron	0.016	U	ug/L	P402147	
		Fluridone	8.0E-04	U	ug/L	P402147	
		Imazapyr	0.0040	U	ug/L	P402147	
		Hydrocodone	0.0020	U	ug/L	P402147	
		Ibuprofen	0.020	U	ug/L	P402147	
		Imidacloprid	0.031	J	ug/L	P402147	MS
		Linuron	0.0040	U	ug/L	P402147	
		Mandestrobin	0.0020	U	ug/L	P402147	
		MCPP	0.0058	I	ug/L	P402147	
		Naproxen	0.0080	U	ug/L	P402147	
		Primidone	0.0040	U	ug/L	P402147	
		Pyraclostrobin	0.0020	U	ug/L	P402147	
		Thiamethoxam	0.0020	UJ	ug/L	P402147	MS
		Tolfenpyrad	0.0020	U	ug/L	P402147	
		Triclopyr	0.0040	U	ug/L	P402147	

Ref. Method and Comment:

EPA 8321B: MS accuracy for 2,4-D 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: Palm Creek

Collection Date/Time: 08/03/2021 08:40

Field ID: G3SD0163

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2267227	EPA 8321B	2,4-D	0.038		ug/L	P402147	
		Acesulfame K	0.17	I	ug/L	P401931	
		2,4,5-T	0.0040	U	ug/L	P402147	
		AMPA	0.28	I	ug/L	P401931	
		Acetaminophen	0.0080	U	ug/L	P402147	
		Acetamiprid	0.0020	U	ug/L	P402147	
		Endothall	0.25	U	ug/L	P401931	
		Glufosinate	0.10	U	ug/L	P401931	
		Glyphosate	0.65		ug/L	P401931	
		Afidopyropen	0.0020	U	ug/L	P402147	
		Bentazon	0.017		ug/L	P402147	
		Sucralose	0.36		ug/L	P401931	
		Benzovindiflupyr	0.0020	U	ug/L	P402147	
		Carbamazepine	0.0012	I	ug/L	P402147	
		Clothianidin	0.0020	U	ug/L	P402147	
		Dinotefuran	0.0020	U	ug/L	P402147	
		Diuron	0.0020	U	ug/L	P402147	
		Fenuron	0.016	U	ug/L	P402147	
		Fluridone	0.0034		ug/L	P402147	
		Imazapyr	0.021		ug/L	P402147	
		Hydrocodone	0.0020	U	ug/L	P402147	
		Ibuprofen	0.020	U	ug/L	P402147	
		Imidacloprid	0.0020	U	ug/L	P402147	MS
		Linuron	0.0040	U	ug/L	P402147	
		Mandestrobin	0.0020	U	ug/L	P402147	
		MCPP	0.0020	U	ug/L	P402147	
		Naproxen	0.0080	U	ug/L	P402147	
		Primidone	0.015	I	ug/L	P402147	
		Pyraclostrobin	0.0020	U	ug/L	P402147	
		Thiamethoxam	0.0020	U	ug/L	P402147	MS
		Tolfenpyrad	0.0020	U	ug/L	P402147	
		Triclopyr	0.0040	U	ug/L	P402147	

Ref. Method and Comment:

EPA 8321B: MS accuracy for 2,4-D could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: Bee Branch @ Loblolly Bay Rd

Collection Date/Time: 08/03/2021 09:30

Field ID: G3SD0085

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2267208	EPA 180.1 Rev. 2.0	Turbidity	4.5		NTU	P401996	
	EPA 300.0 Rev. 2.1	Chloride	25		mg Cl/L	P402412	
		Sulfate	8.0		mg SO4/L	P402415	
	SM 2120 B-2011	Color (true)	520		PCU	P402002	
	SM 2320 B-2011	Total Alkalinity	13		mg CaCO3/L	P402115	
	SM 2540 C-2011	TDS	186		mg/L	P402433	
	SM 2540 D-2011	TSS	8	I	mg/L	P402191	
	SM 4500 F-C-2011	Fluoride	0.086	I	mg F/L	P402117	
2267210	EPA 350.1 Rev. 2.0	Ammonia-N	0.021		mg N/L	P402383	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.1		mg N/L	P402885	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.062		mg N/L	P402105	
	EPA 365.1 Rev. 2.0	Total-P	0.24		mg P/L	P402437	MS
	SM 5310 B-2011	Organic Carbon	43		mg C/L	P402490	
2267212	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.13		mg P/L	P401991	

Ref. Method and Comment:

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

Sample Location: Pollywog Creek @ SR 78

Collection Date/Time: 08/03/2021 10:05

Field ID: G3SD0098

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2267228	EPA 8321B	2,4-D	0.0032	I	ug/L	P402147	
		Acesulfame K	0.10	U	ug/L	P401931	
		2,4,5-T	0.0040	U	ug/L	P402147	
		AMPA	0.10	U	ug/L	P401931	
		Acetaminophen	0.0080	U	ug/L	P402147	
		Acetamiprid	0.0020	U	ug/L	P402147	
		Endothall	0.25	U	ug/L	P401931	
		Glufosinate	0.10	U	ug/L	P401931	
		Glyphosate	0.12	I	ug/L	P401931	
		Afidopyropen	0.0020	U	ug/L	P402147	
		Bentazon	8.0E-04	U	ug/L	P402147	
		Sucralose	0.12		ug/L	P401931	
		Benzovindiflupyr	0.0020	U	ug/L	P402147	
		Carbamazepine	8.0E-04	U	ug/L	P402147	
		Clothianidin	0.0020	U	ug/L	P402147	
		Dinotefuran	0.0064	I	ug/L	P402147	
		Diuron	0.0020	U	ug/L	P402147	
		Fenuron	0.016	U	ug/L	P402147	
		Fluridone	8.0E-04	U	ug/L	P402147	
		Imazapyr	0.0040	U	ug/L	P402147	
		Hydrocodone	0.0020	U	ug/L	P402147	
		Ibuprofen	0.020	U	ug/L	P402147	
		Imidacloprid	0.0027	I	ug/L	P402147	MS
		Linuron	0.0040	U	ug/L	P402147	
		Mandestrobin	0.0020	U	ug/L	P402147	
		MCPP	0.0020	U	ug/L	P402147	
		Naproxen	0.0080	U	ug/L	P402147	
		Primidone	0.0040	U	ug/L	P402147	
		Pyraclostrobin	0.0020	U	ug/L	P402147	
		Thiamethoxam	0.0020	U	ug/L	P402147	MS
		Tolfenpyrad	0.0020	U	ug/L	P402147	
		Triclopyr	0.0040	U	ug/L	P402147	

Ref. Method and Comment:

EPA 8321B: MS accuracy for 2,4-D could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: Bee Branch @ 78

Collection Date/Time: 08/03/2021 10:45

Field ID: G3SD0188

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2267209	EPA 180.1 Rev. 2.0	Turbidity	6.3		NTU	P401996	
	EPA 300.0 Rev. 2.1	Chloride	56		mg Cl/L	P402412	
		Sulfate	35		mg SO4/L	P402415	
	SM 2120 B-2011	Color (true)	79		PCU	P402002	
	SM 2320 B-2011	Total Alkalinity	278		mg CaCO3/L	P402115	
	SM 2540 C-2011	TDS	457	A	mg/L	P402434	
	SM 2540 D-2011	TSS	5	IA	mg/L	P402192	
2267211	SM 4500 F-C-2011	Fluoride	0.32		mg F/L	P402117	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.024		mg N/L	P402383	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.77		mg N/L	P402885	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.040		mg N/L	P402105	
	EPA 365.1 Rev. 2.0	Total-P	0.39	J	mg P/L	P402437	MS
2267213	SM 5310 B-2011	Organic Carbon	13		mg C/L	P402490	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.19		mg P/L	P401991	

Ref. Method and Comment:

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

EPA 365.1 Rev. 2.0: Total-P: Refer to the Lab Analysis Report for an explanation of QC Codes.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P401996

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P402412

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P402415

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402383

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402885

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P402105

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P402437

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P401991

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

Reference Method: EPA 8321B
Batch ID: P401931

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P401931

Component	Result	Code	Units
Glyphosate	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P402147

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2120 B-2011
Batch ID: P402002

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P402115

Component	Result	Code	Units
Total Alkalinity	0.65	U	mg CaCO3/L

Reference Method: SM 2540 C-2011
Batch ID: P402433

Component	Result	Code	Units
TDS	15	U	mg/L

Quality Assurance Report Method Blank Results

Reference Method: SM 2540 C-2011
Batch ID: P402434

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P402191

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P402192

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P402117

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P402490

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: P402412

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P402415

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402383

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402885

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P402105

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P402437

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P401991

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

Reference Method: EPA 8321B
Batch ID: P401931

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	109		P	40 - 150
AMPA	103		P	40 - 150
Endothall	76.4		P	40 - 150
Glufosinate	99.1		P	40 - 150
Glyphosate	101		P	40 - 150
Sucralose	98.2		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P402147

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	96.5		P	40 - 150
2,4,5-T	90.2		P	40 - 150
Acetaminophen	75.1		P	30 - 150
Acetamiprid	77.9		P	40 - 150
Afidopyropen	53.3		P	40 - 150
Bentazon	92.8		P	30 - 150
Benzovindiflupyr	78.0		P	40 - 150
Carbamazepine	83.5		P	40 - 150
Clothianidin	82.0		P	40 - 150
Dinotefuran	79.9		P	40 - 150
Diuron	82.1		P	40 - 150
Fenuron	85.4		P	40 - 150
Fluridone	83.8		P	40 - 150
Hydrocodone	83.8		P	40 - 150
Ibuprofen	76.5		P	40 - 150
Imazapyr	88.2		P	40 - 150
Imidacloprid	83.1		P	40 - 150
Linuron	75.9		P	40 - 150
Mandestrobin	78.0		P	40 - 150
MCPP	95.5		P	40 - 150
Naproxen	82.6		P	40 - 150
Primidone	82.1		P	40 - 150
Pyraclostrobin	75.7		P	40 - 150
Thiamethoxam	86.2		P	40 - 150
Tolfenpyrad	46.0		P	30 - 150
Triclopyr	94.3		P	40 - 150

Reference Method: SM 2120 B-2011

Batch ID: P402002

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.1		P	85 - 115

Reference Method: SM 2320 B-2011

Batch ID: P402115

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	100		P	94 - 106

Reference Method: SM 4500 F-C-2011

Batch ID: P402117

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.5		P	93 - 104

Reference Method: SM 5310 B-2011

Batch ID: P402490

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P402412

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267169	Chloride	97.8		P	90 - 110
2267317	Chloride	99.6		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P402415

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267169	Sulfate	98.7		P	90 - 110
2267317	Sulfate	98.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402383

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267184	Ammonia-N	98.4	98.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402885

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267151	Kjeldahl Nitrogen	96.5	111	P/F	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P402105

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267184	NO2NO3-N	99.5	96.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P402437

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267211	Total-P	114	106	F/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P401991

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267251	O-Phosphate-P	104	97.2	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P401931

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267098	Acesulfame K	94.7	104	P/P	40 - 150
2267098	AMPA	91.7	92.4	P/P	40 - 150
2267098	Endothall	105	106	P/P	40 - 150
2267098	Glufosinate	124	132	P/P	40 - 150
2267098	Glyphosate	82.4	87.0	P/P	40 - 150
2267098	Sucralose	106	103	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P402147

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267226	2,4,5-T	120	104	P/P	40 - 150
2267226	Acetaminophen	98.7	111	P/P	30 - 150
2267226	Acetamiprid	83.4	84.7	P/P	40 - 150
2267226	Afidopyropen	70.6	65.5	P/P	40 - 150
2267226	Bentazon	84.7	93.5	P/P	30 - 150
2267226	Benzovindiflupyr	83.3	87.2	P/P	40 - 150
2267226	Carbamazepine	97.1	105	P/P	40 - 150
2267226	Clothianidin	112	121	P/P	40 - 150
2267226	Dinotefuran	112	130	P/P	40 - 150
2267226	Diuron	74.8	79.0	P/P	40 - 150
2267226	Fenuron	78.7	89.6	P/P	40 - 150
2267226	Fluridone	82.0	78.2	P/P	40 - 150
2267226	Hydrocodone	94.9	104	P/P	40 - 150
2267226	Ibuprofen	78.9	75.4	P/P	40 - 150
2267226	Imazapyr	121	138	P/P	40 - 150
2267226	Imidacloprid	169	172	F/F	40 - 150
2267226	Linuron	76.8	81.4	P/P	40 - 150
2267226	Mandestrobin	84.7	91.4	P/P	40 - 150
2267226	MCP	135	131	P/P	40 - 150
2267226	Naproxen	116	115	P/P	40 - 150
2267226	Primidone	98.2	112	P/P	40 - 150
2267226	Pyraclostrobin	83.4	92.3	P/P	40 - 150
2267226	Thiamethoxam	138	150	P/F	40 - 150
2267226	Tolfenpyrad	54.2	58.1	P/P	30 - 150
2267226	Triclopyr	122	113	P/P	40 - 150

Reference Method: SM 4500 F-C-2011

Batch ID: P402117

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267182	Fluoride	99.6	99.6	P/P	92 - 107

Reference Method: SM 5310 B-2011

Batch ID: P402490

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267073	Organic Carbon	97.1	96.2	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P401996

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267169	Turbidity	8.59	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P402412

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267317	Chloride	1.35	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P402415

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267317	Sulfate	0.597	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402383

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267184	Ammonia-N	0.369	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402885

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267151	Kjeldahl Nitrogen	8.13	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P402105

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267184	NO2NO3-N	3.58	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P402437

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267211	Total-P	3.73	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P401991

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267251	O-Phosphate-P	5.78	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P401931

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267098	Acesulfame K	8.44	Spike	P	0 - 30
2267098	AMPA	0.626	Spike	P	0 - 30
2267098	Endothall	0.228	Spike	P	0 - 30
2267098	Glufosinate	6.32	Spike	P	0 - 30
2267098	Glyphosate	3.37	Spike	P	0 - 30
2267098	Sucralose	2.78	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P402147

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267226	2,4-D	3.44	Spike	P	0 - 30
2267226	2,4,5-T	14.0	Spike	P	0 - 30
2267226	Acetaminophen	11.7	Spike	P	0 - 30
2267226	Acetamiprid	1.63	Spike	P	0 - 30
2267226	Afidopyropen	7.41	Spike	P	0 - 30
2267226	Bentazon	9.86	Spike	P	0 - 30
2267226	Benzovindiflupyr	4.60	Spike	P	0 - 30
2267226	Carbamazepine	7.70	Spike	P	0 - 30
2267226	Clothianidin	7.64	Spike	P	0 - 30
2267226	Dinotefuran	14.6	Spike	P	0 - 30
2267226	Diuron	5.44	Spike	P	0 - 30
2267226	Fenuron	13.0	Spike	P	0 - 30
2267226	Fluridone	4.79	Spike	P	0 - 30
2267226	Hydrocodone	9.47	Spike	P	0 - 30
2267226	Ibuprofen	4.53	Spike	P	0 - 30
2267226	Imazapyr	12.7	Spike	P	0 - 30
2267226	Imidacloprid	1.35	Spike	P	0 - 30
2267226	Linuron	5.81	Spike	P	0 - 30
2267226	Mandestrobin	7.60	Spike	P	0 - 30
2267226	MCPP	3.06	Spike	P	0 - 30
2267226	Naproxen	0.941	Spike	P	0 - 30
2267226	Primidone	12.7	Spike	P	0 - 30
2267226	Pyraclostrobin	10.2	Spike	P	0 - 30
2267226	Thiamethoxam	8.81	Spike	P	0 - 30
2267226	Tolfenpyrad	7.08	Spike	P	0 - 30
2267226	Triclopyr	7.01	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P402002

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267245	Color (true)	0.272	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P402115

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
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Quality Assurance Report Precision

Reference Method: SM 2320 B-2011
Batch ID: P402115

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267182	Total Alkalinity	0.584	Sample	P	0 - 5.2

Reference Method: SM 2540 C-2011
Batch ID: P402433

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267075	TDS	4.36	Sample	P	0 - 10

Reference Method: SM 2540 C-2011
Batch ID: P402434

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267209	TDS	6.56	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P402117

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267182	Fluoride	0.0	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
Batch ID: P402490

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267073	Organic Carbon	0.501	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2267226

Field Sample ID: G3SD0190

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	149	P	30 - 160
EPA 8321B	Acetaminophen-d4	100	P	30 - 160
EPA 8321B	Carbamazepine-d10	97.5	P	30 - 160
EPA 8321B	Diuron-d6	76.0	P	30 - 160
EPA 8321B	Endothall-d6	98.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	79.8	P	30 - 160
EPA 8321B	Ibuprofen-d3	84.9	P	30 - 160
EPA 8321B	Primidone-d5	105	P	30 - 160
EPA 8321B	Sucralose-d6	108	P	30 - 160

Lab Sample ID: 2267227

Field Sample ID: G3SD0163

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	142	P	30 - 160
EPA 8321B	Acetaminophen-d4	97.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	85.5	P	30 - 160
EPA 8321B	Diuron-d6	63.8	P	30 - 160
EPA 8321B	Endothall-d6	65.7	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	69.8	P	30 - 160
EPA 8321B	Ibuprofen-d3	87.2	P	30 - 160
EPA 8321B	Primidone-d5	84.3	P	30 - 160
EPA 8321B	Sucralose-d6	115	P	30 - 160

Lab Sample ID: 2267228

Field Sample ID: G3SD0098

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	133	P	30 - 160
EPA 8321B	Acetaminophen-d4	96.3	P	30 - 160
EPA 8321B	Carbamazepine-d10	77.2	P	30 - 160
EPA 8321B	Diuron-d6	60.6	P	30 - 160
EPA 8321B	Endothall-d6	60.0	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	91.8	P	30 - 160
EPA 8321B	Ibuprofen-d3	89.1	P	30 - 160
EPA 8321B	Primidone-d5	78.0	P	30 - 160
EPA 8321B	Sucralose-d6	119	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A107045

Included Lab Sample IDs: 2267212, 2267213

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.7	98.8	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A107046

Included Lab Sample IDs: 2267208, 2267209

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

Reference Method: SM 2120 B-2011

Run ID: A107047

Included Lab Sample IDs: 2267208, 2267209

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.5	99.7	P/P	90 - 115

Reference Method: EPA 8321B

Run ID: A107069

Included Lab Sample IDs: 2267226, 2267227, 2267228

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	65.0	80.9	P/P	60 - 160
Endothall	72.4	66.0	P/P	60 - 160
Sucralose	90.4	85.4	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A107073

Included Lab Sample IDs: 2267226, 2267227, 2267228

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	103	105	P/P	60 - 160
AMPA	109	114	P/P	60 - 160
Glufosinate	96.8	101	P/P	60 - 160
Glufosinate	97.5	106	P/P	60 - 160
Glyphosate	101	106	P/P	60 - 160
Glyphosate	97.7	110	P/P	60 - 160

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A107091

Included Lab Sample IDs: 2267210, 2267211

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

Reference Method: SM 2320 B-2011

Run ID: A107093

Included Lab Sample IDs: 2267208, 2267209

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.4	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 4500 F-C-2011

Run ID: A107093

Included Lab Sample IDs: 2267208, 2267209

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

Reference Method: EPA 8321B

Run ID: A107150

Included Lab Sample IDs: 2267226, 2267227, 2267228

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	101	92.1	P/P	50 - 150
2,4-D	92.1	95.1	P/P	50 - 150
2,4,5-T	100	97.9	P/P	50 - 150
2,4,5-T	99.8	100	P/P	50 - 150
Acetaminophen	103	93.2	P/P	60 - 160
Acetaminophen	93.2	92.0	P/P	60 - 160
Acetamiprid	100	99.9	P/P	50 - 150
Acetamiprid	101	100	P/P	50 - 150
Afidopyropen	95.8	93.1	P/P	50 - 150
Afidopyropen	96.8	95.8	P/P	50 - 150
Bentazon	108	110	P/P	50 - 160
Bentazon	110	108	P/P	50 - 160
Benzovindiflupyr	97.9	99.4	P/P	50 - 150
Benzovindiflupyr	98.0	97.9	P/P	50 - 150
Carbamazepine	106	101	P/P	60 - 150
Carbamazepine	107	106	P/P	60 - 150
Clothianidin	104	96.9	P/P	60 - 150
Clothianidin	96.9	95.0	P/P	60 - 150
Dinotefuran	102	98.6	P/P	50 - 150
Dinotefuran	98.6	98.9	P/P	50 - 150
Diuron	107	104	P/P	60 - 160
Diuron	109	107	P/P	60 - 160
Fenuron	102	98.6	P/P	60 - 150
Fenuron	98.6	101	P/P	60 - 150
Fluridone	101	102	P/P	60 - 160
Fluridone	102	101	P/P	60 - 160
Hydrocodone	103	105	P/P	60 - 150
Hydrocodone	104	103	P/P	60 - 150
Ibuprofen	90.7	91.2	P/P	50 - 160
Ibuprofen	96.0	90.7	P/P	50 - 160
Imazapyr	101	101	P/P	50 - 150
Imazapyr	105	101	P/P	50 - 150
Imidacloprid	95.6	95.6	P/P	60 - 150
Imidacloprid	98.0	95.6	P/P	60 - 150
Linuron	102	97.9	P/P	60 - 150
Linuron	103	102	P/P	60 - 150
Mandestrobin	100	98.8	P/P	50 - 150
Mandestrobin	98.8	100	P/P	50 - 150
MCPP	96.7	95.7	P/P	50 - 150
MCPP	98.4	96.7	P/P	50 - 150
Naproxen	107	93.7	P/P	50 - 160
Naproxen	93.7	110	P/P	50 - 160
Primidone	93.9	92.6	P/P	60 - 150
Primidone	94.4	93.9	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A107150

Included Lab Sample IDs: 2267226, 2267227, 2267228

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pyraclostrobin	102	99.9	P/P	60 - 150
Pyraclostrobin	99.9	101	P/P	60 - 150
Thiamethoxam	101	106	P/P	50 - 150
Thiamethoxam	102	101	P/P	50 - 150
Tolfenpyrad	94.9	93.6	P/P	60 - 150
Tolfenpyrad	97.4	94.9	P/P	60 - 150
Triclopyr	101	99.1	P/P	50 - 150
Triclopyr	99.0	101	P/P	50 - 150

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A107166

Included Lab Sample IDs: 2267208, 2267209

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.1	99.0	P/P	90 - 110
Sulfate	98.7	98.3	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A107211

Included Lab Sample IDs: 2267210, 2267211

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

Reference Method: SM 5310 B-2011

Run ID: A107256

Included Lab Sample IDs: 2267210, 2267211

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.6	98.6	P/P	90 - 110
Organic Carbon	98.0	97.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A107315

Included Lab Sample IDs: 2267210, 2267211

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	108	108	P/P	85 - 115

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A107458

Included Lab Sample IDs: 2267210, 2267211

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	99.3	103	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	MS
						SMP	
EPA 180.1 Rev. 2.0	Turbidity					8.59	
EPA 300.0 Rev. 2.1	Chloride	101	99.6	97.8		1.35	
	Sulfate	101	98.7	98.7		0.597	
EPA 350.1 Rev. 2.0	Ammonia-N	99.6	98.4	98.8			0.369
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	102	96.5	111			8.13
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	100	99.5	96.0			3.58
EPA 365.1 Rev. 2.0	Total-P	108	114	106			3.73
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101	104	97.2			5.78
EPA 8321B	2,4-D	96.5					3.44
	2,4,5-T	90.2	120	104			14.0
	Acesulfame K	109	94.7	104			8.44
	Acetaminophen	75.1	98.7	111			11.7
	Acetamiprid	77.9	83.4	84.7			1.63
	Afidopyropen	53.3	70.6	65.5			7.41
	AMPA	103	91.7	92.4			0.626
	Bentazon	92.8	84.7	93.5			9.86
	Benzovindiflupyr	78.0	83.3	87.2			4.60
	Carbamazepine	83.5	97.1	105			7.70
	Clothianidin	82.0	112	121			7.64
	Dinotefuran	79.9	112	130			14.6
	Diuron	82.1	74.8	79.0			5.44
	Endothall	76.4	105	106			0.228
	Fenuron	85.4	78.7	89.6			13.0
	Fluridone	83.8	82.0	78.2			4.79
	Glufosinate	99.1	124	132			6.32
	Glyphosate	101	82.4	87.0			3.37
	Hydrocodone	83.8	94.9	104			9.47
	Ibuprofen	76.5	78.9	75.4			4.53
	Imazapyr	88.2	121	138			12.7
	Imidacloprid	83.1	169	172			1.35
	Linuron	75.9	76.8	81.4			5.81
	Mandestrobin	78.0	84.7	91.4			7.60
	MCP	95.5	135	131			3.06
	Naproxen	82.6	116	115			0.941
	Primidone	82.1	98.2	112			12.7
	Pyraclostrobin	75.7	83.4	92.3			10.2
	Sucralose	98.2	106	103			2.78
	Thiamethoxam	86.2	138	150			8.81
	Tolfenpyrad	46.0	54.2	58.1			7.08
	Triclopyr	94.3	122	113			7.01
SM 2120 B-2011	Color (true)	98.1				0.272	
SM 2320 B-2011	Total Alkalinity	100				0.584	
SM 2540 C-2011	TDS					4.36	
	TDS					6.56	
SM 4500 F-C-2011	Fluoride	99.5	99.6	99.6			0.0
SM 5310 B-2011	Organic Carbon	97.0	97.1	96.2			0.501

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2267208, 2267209
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2267208, 2267209
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2267208, 2267209

Reference Method Descriptions

Method	Description	Associated Samples
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2267210, 2267211
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2267210, 2267211
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2267210, 2267211
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2267210, 2267211
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2267212, 2267213
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2267226, 2267227, 2267228
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2267208, 2267209
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2267208, 2267209
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2267208, 2267209
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2267208, 2267209
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2267208, 2267209
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2267210, 2267211

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	08/04/2021			08/04/2021 15:23	Sarah A Nixon	2267208, 2267209
EPA 300.0 Rev. 2.1	08/04/2021			08/11/2021 20:05	Lipi Saha	2267208
	08/04/2021			08/11/2021 20:17	Lipi Saha	2267209
EPA 350.1 Rev. 2.0	08/04/2021			08/12/2021 11:27	Roberta Tatti	2267210
	08/04/2021			08/12/2021 11:28	Roberta Tatti	2267211
EPA 351.2 Rev. 2.0	08/04/2021	08/24/2021 13:34	Benjamin T. Nordmann	08/25/2021 09:41	Virginia P. Brown	2267210
	08/04/2021	08/24/2021 13:34	Benjamin T. Nordmann	08/25/2021 09:43	Virginia P. Brown	2267211
EPA 353.2 Rev. 2.0	08/04/2021			08/06/2021 10:23	Beverly Y. Sanders	2267210
	08/04/2021			08/06/2021 10:24	Beverly Y. Sanders	2267211
EPA 365.1 Rev. 2.0	08/04/2021	08/13/2021 15:00	Simonne.V. Calhoun	08/18/2021 14:31	Shengyu Ding	2267210
	08/04/2021	08/13/2021 15:00	Simonne.V. Calhoun	08/18/2021 14:32	Shengyu Ding	2267211
EPA 365.1 Rev. 2.0 dissolved	08/04/2021			08/04/2021 15:26	Patrick M. Roche	2267212
	08/04/2021			08/04/2021 15:27	Patrick M. Roche	2267213
EPA 8321B	08/04/2021	08/05/2021 10:30	Juyoung Kim	08/05/2021 13:38	Juyoung Kim	2267226
	08/04/2021	08/05/2021 10:30	Juyoung Kim	08/05/2021 13:52	Juyoung Kim	2267227
	08/04/2021	08/05/2021 10:30	Juyoung Kim	08/05/2021 14:06	Juyoung Kim	2267228
	08/04/2021	08/05/2021 10:30	Juyoung Kim	08/05/2021 20:22	Juyoung Kim	2267226
	08/04/2021	08/05/2021 10:30	Juyoung Kim	08/06/2021 09:10	Juyoung Kim	2267227
	08/04/2021	08/05/2021 10:30	Juyoung Kim	08/06/2021 09:20	Juyoung Kim	2267228
	08/04/2021	08/09/2021 08:30	Hoor Shaik	08/09/2021 23:52	Juyoung Kim	2267226
	08/04/2021	08/09/2021 08:30	Hoor Shaik	08/10/2021 01:01	Juyoung Kim	2267227
	08/04/2021	08/09/2021 08:30	Hoor Shaik	08/10/2021 01:36	Juyoung Kim	2267228
SM 2120 B-2011	08/04/2021			08/04/2021 16:02	Sarah A Nixon	2267209
	08/04/2021			08/04/2021 16:07	Sarah A Nixon	2267208
SM 2320 B-2011	08/04/2021			08/05/2021 17:46	Dale L. Simmons	2267208
	08/04/2021			08/05/2021 18:01	Dale L. Simmons	2267209
SM 2540 C-2011	08/04/2021			08/06/2021 15:32	Yijie Li	2267208, 2267209
SM 2540 D-2011	08/04/2021			08/06/2021 15:32	Yijie Li	2267208, 2267209
SM 4500 F-C-2011	08/04/2021			08/05/2021 17:46	Dale L. Simmons	2267208
	08/04/2021			08/05/2021 18:01	Dale L. Simmons	2267209
SM 5310 B-2011	08/04/2021			08/14/2021 06:48	Touraj Touran	2267210
	08/04/2021			08/14/2021 07:28	Touraj Touran	2267211