

Chemical Analysis Report

SO-DIST-2021-06-24-01

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

Event Description: **2021 SMP: Placid Lakes**
Request ID: **RQ-2021-06-21-17**
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: William Mullen

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: 20-JUL-2021 16:02

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: JacksonCreek@Weir

Collection Date/Time: 06/23/2021 10:15

Field ID: G4SD0204

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2256846	EPA 180.1 Rev. 2.0	Turbidity	2.1		NTU	P400180	
	EPA 300.0 Rev. 2.1	Chloride	12		mg Cl/L	P400552	
		Sulfate	16		mg SO4/L	P400555	
	SM 2120 B-2011	Color (true)	52	A	PCU	P400183	
	SM 2320 B-2011	Total Alkalinity	8.2		mg CaCO3/L	P400616	
	SM 2540 C-2011	TDS	76		mg/L	P400604	
	SM 2540 D-2011	TSS	3	I	mg/L	P400607	
	SM 4500 F-C-2011	Fluoride	0.039	I	mg F/L	P400620	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.005		mg N/L	P400461	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.61		mg N/L	P400473	
2256848	EPA 353.2 Rev. 2.0	NO2NO3-N	0.19		mg N/L	P400234	
	EPA 365.1 Rev. 2.0	Total-P	0.040		mg P/L	P400336	
	SM 5310 B-2011	Organic Carbon	8.3		mg C/L	P400533	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.006	I	mg P/L	P400188	
	dissolved						

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: Lake Francis

Collection Date/Time: 06/23/2021 11:15

Field ID: G4SD0187

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2256852	EPA 180.1 Rev. 2.0	Turbidity	2.1	A	NTU	P400180	
	EPA 300.0 Rev. 2.1	Chloride	20		mg Cl/L	P400552	
		Sulfate	23		mg SO4/L	P400555	
	SM 2120 B-2011	Color (true)	9.4		PCU	P400183	
	SM 2320 B-2011	Total Alkalinity	27		mg CaCO3/L	P400616	
	SM 2540 C-2011	TDS	109		mg/L	P400604	
	SM 2540 D-2011	TSS	4	I	mg/L	P400607	
	SM 4500 F-C-2011	Fluoride	0.059	I	mg F/L	P400620	
2256855	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P400461	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.59		mg N/L	P400474	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P400234	
	EPA 365.1 Rev. 2.0	Total-P	0.011		mg P/L	P400336	
	SM 5310 B-2011	Organic Carbon	7.1		mg C/L	P400533	
2256858	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P400188	
2256868	EPA 8321B	2,4-D	0.022		ug/L	P400315	
		Acesulfame K	0.10	U	ug/L	P400090	RPD
		2,4,5-T	0.0040	U	ug/L	P400315	
		AMPA	0.10	U	ug/L	P400090	
		Acetaminophen	0.0080	U	ug/L	P400315	
		Acetamiprid	0.0020	U	ug/L	P400315	
		Endothall	0.25	U	ug/L	P400090	
		Glufosinate	0.10	U	ug/L	P400090	
		Glyphosate	0.10	U	ug/L	P400090	
		Afidopyropen	0.0020	U	ug/L	P400315	
		Bentazon	0.0029	I	ug/L	P400315	
		Sucralose	0.31		ug/L	P400090	
		Benzovindiflupyr	0.0020	U	ug/L	P400315	
		Carbamazepine	8.0E-04	U	ug/L	P400315	
		Clothianidin	0.0020	U	ug/L	P400315	
		Dinotefuran	0.0020	U	ug/L	P400315	
		Diuron	0.0020	U	ug/L	P400315	
		Fenuron	0.016	U	ug/L	P400315	
		Fluridone	8.0E-04	U	ug/L	P400315	
		Imazapyr	0.0040	UJ	ug/L	P400315	MS
		Hydrocodone	0.0020	U	ug/L	P400315	
		Ibuprofen	0.020	U	ug/L	P400315	
		Imidacloprid	0.015		ug/L	P400315	
		Linuron	0.0040	U	ug/L	P400315	
		Mandestrobin	0.0020	U	ug/L	P400315	
		MCP	0.0020	U	ug/L	P400315	
		Naproxen	0.0080	U	ug/L	P400315	
		Primidone	0.0040	U	ug/L	P400315	
		Pyraclostrobin	0.0020	U	ug/L	P400315	

Field ID: G4SD0187

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2256868	EPA 8321B	Thiamethoxam	0.0020	U	ug/L	P400315	
		Tolfenpyrad	0.0020	U	ug/L	P400315	
		Triclopyr	0.0040	U	ug/L	P400315	

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.
EPA 8321B: Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: Lake June In Winter

Collection Date/Time: 06/23/2021 12:15

Field ID: G4SD0186

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2256853	EPA 180.1 Rev. 2.0	Turbidity	2.1		NTU	P400180	
	EPA 300.0 Rev. 2.1	Chloride	19		mg Cl/L	P400552	
		Sulfate	26		mg SO4/L	P400555	
	SM 2120 B-2011	Color (true)	8.7		PCU	P400183	
	SM 2320 B-2011	Total Alkalinity	23		mg CaCO3/L	P400616	
	SM 2540 C-2011	TDS	105		mg/L	P400604	
	SM 2540 D-2011	TSS	5	I	mg/L	P400607	
	SM 4500 F-C-2011	Fluoride	0.063	I	mg F/L	P400620	
2256856	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P400461	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.61		mg N/L	P400474	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P400234	
	EPA 365.1 Rev. 2.0	Total-P	0.008		mg P/L	P400337	
	SM 5310 B-2011	Organic Carbon	6.5		mg C/L	P400533	
2256859	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P400188	
2256869	EPA 8321B	2,4-D	0.0064	I	ug/L	P400315	
		Acesulfame K	0.10	U	ug/L	P400090	RPD
		2,4,5-T	0.0040	U	ug/L	P400315	
		AMPA	0.10	U	ug/L	P400090	
		Acetaminophen	0.0080	U	ug/L	P400315	
		Acetamiprid	0.0020	U	ug/L	P400315	
		Endothall	0.25	U	ug/L	P400090	
		Glufosinate	0.10	U	ug/L	P400090	
		Glyphosate	0.10	U	ug/L	P400090	
		Afidopyropen	0.0020	U	ug/L	P400315	
		Bentazon	0.0035		ug/L	P400315	
		Sucralose	0.35		ug/L	P400090	
		Benzovindiflupyr	0.0020	U	ug/L	P400315	
		Carbamazepine	8.0E-04	U	ug/L	P400315	
		Clothianidin	0.0044	I	ug/L	P400315	
		Dinotefuran	0.0020	U	ug/L	P400315	
		Diuron	0.0020	U	ug/L	P400315	
		Fenuron	0.016	U	ug/L	P400315	
		Fluridone	8.0E-04	U	ug/L	P400315	
		Imazapyr	0.0040	U	ug/L	P400315	MS
		Hydrocodone	0.0020	U	ug/L	P400315	
		Ibuprofen	0.020	U	ug/L	P400315	
		Imidacloprid	0.021		ug/L	P400315	
		Linuron	0.0040	U	ug/L	P400315	
		Mandestrobin	0.0020	U	ug/L	P400315	
		MCPP	0.0020	U	ug/L	P400315	
		Naproxen	0.0080	U	ug/L	P400315	
		Primidone	0.0040	U	ug/L	P400315	
		Pyraclostrobin	0.0020	U	ug/L	P400315	

Field ID: G4SD0186

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2256869	EPA 8321B	Thiamethoxam	0.0059	I	ug/L	P400315	
		Tolfenpyrad	0.0020	U	ug/L	P400315	
		Triclopyr	0.0040	U	ug/L	P400315	

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.
EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: PlacidJuneCnl@LkeGrvsRd

Collection Date/Time: 06/23/2021 13:10

Field ID: G4SD0209

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2256847	EPA 180.1 Rev. 2.0	Turbidity	0.90		NTU	P400180	
	EPA 300.0 Rev. 2.1	Chloride	14		mg Cl/L	P400552	
		Sulfate	18		mg SO4/L	P400555	
	SM 2120 B-2011	Color (true)	54		PCU	P400183	
	SM 2320 B-2011	Total Alkalinity	3.2		mg CaCO3/L	P400616	
	SM 2540 C-2011	TDS	97		mg/L	P400604	
	SM 2540 D-2011	TSS	3	I	mg/L	P400607	
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P400620	
2256849	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P400461	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.53		mg N/L	P400474	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.4		mg N/L	P400234	
	EPA 365.1 Rev. 2.0	Total-P	0.024		mg P/L	P400336	
	SM 5310 B-2011	Organic Carbon	12		mg C/L	P400533	
2256851	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.011		mg P/L	P400188	

Ref. Method and Comment:

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

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

Sample Location: Lake Placid @ Center

Collection Date/Time: 06/23/2021 13:40

Field ID: G4SD0191

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2256854	EPA 180.1 Rev. 2.0	Turbidity	3.5		NTU	P400180	
	EPA 300.0 Rev. 2.1	Chloride	15		mg Cl/L	P400552	
		Sulfate	17		mg SO4/L	P400555	
	SM 2120 B-2011	Color (true)	6.9		PCU	P400183	
	SM 2320 B-2011	Total Alkalinity	22	A	mg CaCO3/L	P400616	
	SM 2540 C-2011	TDS	76		mg/L	P400604	
	SM 2540 D-2011	TSS	2	I	mg/L	P400607	
	SM 4500 F-C-2011	Fluoride	0.051	I	mg F/L	P400620	
2256857	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P400461	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.55		mg N/L	P400474	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P400234	
	EPA 365.1 Rev. 2.0	Total-P	0.014		mg P/L	P400337	
	SM 5310 B-2011	Organic Carbon	5.6		mg C/L	P400533	
2256860	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P400188	
2256870	EPA 8321B	2,4-D	0.0028	I	ug/L	P400315	
		Acesulfame K	0.10	U	ug/L	P400090	RPD
		2,4,5-T	0.0040	U	ug/L	P400315	
		AMPA	0.10	U	ug/L	P400090	
		Acetaminophen	0.0086	I	ug/L	P400315	
		Acetamiprid	0.0020	U	ug/L	P400315	
		Endothall	0.25	U	ug/L	P400090	
		Glufosinate	0.10	U	ug/L	P400090	
		Glyphosate	0.10	U	ug/L	P400090	
		Afidopyropen	0.0020	U	ug/L	P400315	
		Bentazon	8.0E-04	U	ug/L	P400315	
		Sucralose	0.028	I	ug/L	P400090	
		Benzovindiflupyr	0.0020	U	ug/L	P400315	
		Carbamazepine	8.0E-04	U	ug/L	P400315	
		Clothianidin	0.0020	U	ug/L	P400315	
		Dinotefuran	0.0020	U	ug/L	P400315	
		Diuron	0.0020	U	ug/L	P400315	
		Fenuron	0.016	U	ug/L	P400315	
		Fluridone	8.0E-04	U	ug/L	P400315	
		Imazapyr	0.0040	U	ug/L	P400315	MS
		Hydrocodone	0.0020	U	ug/L	P400315	
		Ibuprofen	0.020	U	ug/L	P400315	
		Imidacloprid	0.0053	I	ug/L	P400315	
		Linuron	0.0040	U	ug/L	P400315	
		Mandestrobin	0.0020	U	ug/L	P400315	
		MCPD	0.0020	U	ug/L	P400315	
		Naproxen	0.0080	U	ug/L	P400315	
		Primidone	0.0040	U	ug/L	P400315	
		Pyraclostrobin	0.0020	U	ug/L	P400315	

Field ID: G4SD0191

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2256870	EPA 8321B	Thiamethoxam	0.0020	U	ug/L	P400315	
		Tolfenpyrad	0.0020	U	ug/L	P400315	
		Triclopyr	0.0040	U	ug/L	P400315	

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.
EPA 365.1 Rev. 2.0: Total-P: 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: P400180

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P400552

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P400555

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P400461

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P400473

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P400474

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P400234

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P400336

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P400337

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 dissolved
 Batch ID: P400188

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

Reference Method: EPA 8321B
 Batch ID: P400090

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: P400315

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: P400183

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report

Method Blank Results

Reference Method: SM 2320 B-2011
Batch ID: P400616

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

Reference Method: SM 2540 C-2011
Batch ID: P400604

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P400607

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P400620

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P400533

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: P400552

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P400555

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P400461

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	97.2		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P400473

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	99.9		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P400474

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: P400234

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO ₂ NO ₃ -N	99.0		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P400336

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P400337

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P400188

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P400090

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	83.9		P	40 - 150
AMPA	97.9		P	40 - 150
Endothall	72.9		P	40 - 150
Glufosinate	96.7		P	40 - 150
Glyphosate	102		P	40 - 140
Sucralose	92.1		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P400315

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	120		P	30 - 160
2,4,5-T	128		P	30 - 160
Acetaminophen	83.0		P	30 - 160
Acetamiprid	90.6		P	30 - 160
Afidopyropen	73.6		P	30 - 160
Bentazon	92.3		P	30 - 160
Benzovindiflupyr	92.8		P	30 - 160
Carbamazepine	92.0		P	30 - 160
Clothianidin	92.2		P	30 - 160
Dinotefuran	88.1		P	30 - 160
Diuron	73.7		P	30 - 160
Fenuron	99.7		P	30 - 160
Fluridone	87.6		P	30 - 160
Hydrocodone	94.6		P	30 - 160
Ibuprofen	86.0		P	30 - 160
Imazapyr	101		P	30 - 160
Imidacloprid	92.6		P	30 - 160
Linuron	73.3		P	30 - 160
Mandestrobin	94.1		P	30 - 160
MCPP	125		P	30 - 160
Naproxen	82.1		P	30 - 160
Primidone	93.3		P	30 - 160
Pyraclostrobin	81.1		P	30 - 160
Thiamethoxam	91.7		P	30 - 160
Tolfenpyrad	47.4		P	30 - 160
Triclopyr	122		P	30 - 160

Reference Method: SM 2120 B-2011
Batch ID: P400183

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	101		P	85 - 115

Reference Method: SM 2320 B-2011
Batch ID: P400616

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-2011
Batch ID: P400620

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.5		P	93 - 104

Reference Method: SM 5310 B-2011
Batch ID: P400533

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.9		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P400552

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2256665	Chloride	99.6		P	90 - 110
2256775	Chloride	100		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P400555

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2256665	Sulfate	99.6		P	90 - 110
2256775	Sulfate	98.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P400461

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2256766	Ammonia-N	94.8	96.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P400473

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2256744	Kjeldahl Nitrogen	109	107	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P400234

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2256756	NO2NO3-N	94.0		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P400336

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2256776	Total-P	104	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P400188

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2256840	O-Phosphate-P	103	103	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P400090

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2256374	Acesulfame K	105	77.0	P/P	40 - 150
2256374	AMPA	79.8	84.1	P/P	40 - 150
2256374	Endothall	102	99.8	P/P	40 - 150
2256374	Glufosinate	94.5	100	P/P	40 - 150
2256374	Glyphosate	100	100	P/P	40 - 140
2256374	Sucralose	94.2	101	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P400315

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2256868	2,4-D	122	124	P/P	30 - 160
2256868	2,4,5-T	113	116	P/P	30 - 160
2256868	Acetaminophen	112	112	P/P	30 - 160
2256868	Acetamiprid	82.4	74.6	P/P	30 - 160
2256868	Afidopyropen	71.1	57.7	P/P	30 - 160
2256868	Bentazon	79.5	74.5	P/P	30 - 160
2256868	Benzovindiflupyr	84.5	91.2	P/P	30 - 160
2256868	Carbamazepine	85.2	87.3	P/P	30 - 160
2256868	Clothianidin	114	107	P/P	30 - 160
2256868	Dinotefuran	125	123	P/P	30 - 160
2256868	Diuron	75.7	68.5	P/P	30 - 160
2256868	Fenuron	83.1	79.1	P/P	30 - 160
2256868	Fluridone	79.7	81.1	P/P	30 - 160
2256868	Hydrocodone	108	107	P/P	30 - 160
2256868	Ibuprofen	84.8	67.3	P/P	30 - 160
2256868	Imazapyr	168	159	F/P	30 - 160
2256868	Imidacloprid	148	155	P/P	30 - 160
2256868	Linuron	70.6	70.0	P/P	30 - 160
2256868	Mandestrobin	94.0	90.3	P/P	30 - 160
2256868	MCCPP	113	112	P/P	30 - 160
2256868	Naproxen	97.4	75.5	P/P	30 - 160
2256868	Primidone	122	111	P/P	30 - 160
2256868	Pyraclostrobin	88.6	80.2	P/P	30 - 160
2256868	Thiamethoxam	145	148	P/P	30 - 160
2256868	Tolfenpyrad	53.7	55.9	P/P	30 - 160
2256868	Triclopyr	121	113	P/P	30 - 160

Reference Method: SM 4500 F-C-2011

Batch ID: P400620

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2256854	Fluoride	101	101	P/P	92 - 107

Reference Method: SM 5310 B-2011

Batch ID: P400533

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2256776	Organic Carbon	95.9	95.5	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P400180

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2256852	Turbidity	1.89	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P400552

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2256665	Chloride	0.827	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P400555

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2256665	Sulfate	1.15	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P400461

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2256766	Ammonia-N	1.29	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P400473

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2256744	Kjeldahl Nitrogen	1.51	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P400474

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2256913	Kjeldahl Nitrogen	2.60	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P400234

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2256756	NO2NO3-N	0.193	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P400336

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2256776	Total-P	1.61	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P400337

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2256932	Total-P	0.800	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P400188

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2256840	O-Phosphate-P	0.486	Spike	P	0 - 20

Reference Method: EPA 8321B

Batch ID: P400090

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2256374	Acesulfame K	31.2	Spike	F	0 - 30
2256374	AMPA	5.21	Spike	P	0 - 30
2256374	Endothall	1.71	Spike	P	0 - 30
2256374	Glufosinate	5.98	Spike	P	0 - 30
2256374	Glyphosate	0.0759	Spike	P	0 - 30
2256374	Sucralose	6.69	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P400315

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2256868	2,4-D	1.26	Spike	P	0 - 30
2256868	2,4,5-T	3.02	Spike	P	0 - 30
2256868	Acetaminophen	0.0414	Spike	P	0 - 30
2256868	Acetamiprid	10.0	Spike	P	0 - 30
2256868	Afidopyropen	20.9	Spike	P	0 - 30
2256868	Bentazon	4.42	Spike	P	0 - 30
2256868	Benzovindiflupyr	7.62	Spike	P	0 - 30
2256868	Carbamazepine	2.49	Spike	P	0 - 30
2256868	Clothianidin	6.72	Spike	P	0 - 30
2256868	Dinotefuran	1.79	Spike	P	0 - 30
2256868	Diuron	9.87	Spike	P	0 - 30
2256868	Fenuron	4.91	Spike	P	0 - 30
2256868	Fluridone	1.73	Spike	P	0 - 30
2256868	Hydrocodone	1.10	Spike	P	0 - 30
2256868	Ibuprofen	23.0	Spike	P	0 - 30
2256868	Imazapyr	5.53	Spike	P	0 - 30
2256868	Imidacloprid	3.73	Spike	P	0 - 30
2256868	Linuron	0.884	Spike	P	0 - 30
2256868	Mandestrobin	4.05	Spike	P	0 - 30
2256868	MCCP	0.487	Spike	P	0 - 30
2256868	Naproxen	25.3	Spike	P	0 - 30
2256868	Primidone	9.27	Spike	P	0 - 30
2256868	Pyraclostrobin	9.94	Spike	P	0 - 30
2256868	Thiamethoxam	2.44	Spike	P	0 - 30
2256868	Tolfenpyrad	4.05	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P400315

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2256868	Triclopyr	6.44	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P400183

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2256846	Color (true)	1.48	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P400616

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2256854	Total Alkalinity	3.03	Sample	P	0 - 5.2

Reference Method: SM 2540 C-2011
Batch ID: P400604

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2256890	TDS	8.70	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P400620

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2256854	Fluoride	0.0	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
Batch ID: P400533

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2256776	Organic Carbon	0.323	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2256868

Field Sample ID: G4SD0187

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	117	P	30 - 160
EPA 8321B	Acetaminophen-d4	120	P	30 - 160
EPA 8321B	Carbamazepine-d10	86.3	P	30 - 160
EPA 8321B	Diuron-d6	62.2	P	30 - 160
EPA 8321B	Endothall-d6	88.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	113	P	40 - 160
EPA 8321B	Ibuprofen-d3	84.1	P	30 - 160
EPA 8321B	Primidone-d5	92.2	P	30 - 160
EPA 8321B	Sucralose-d6	96.9	P	30 - 160

Lab Sample ID: 2256869

Field Sample ID: G4SD0186

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	123	P	30 - 160
EPA 8321B	Acetaminophen-d4	124	P	30 - 160
EPA 8321B	Carbamazepine-d10	95.7	P	30 - 160
EPA 8321B	Diuron-d6	62.8	P	30 - 160
EPA 8321B	Endothall-d6	96.8	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	105	P	40 - 160
EPA 8321B	Ibuprofen-d3	74.5	P	30 - 160
EPA 8321B	Primidone-d5	98.6	P	30 - 160
EPA 8321B	Sucralose-d6	105	P	30 - 160

Lab Sample ID: 2256870

Field Sample ID: G4SD0191

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	124	P	30 - 160
EPA 8321B	Acetaminophen-d4	113	P	30 - 160
EPA 8321B	Carbamazepine-d10	97.2	P	30 - 160
EPA 8321B	Diuron-d6	68.7	P	30 - 160
EPA 8321B	Endothall-d6	84.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	103	P	40 - 160
EPA 8321B	Ibuprofen-d3	79.0	P	30 - 160
EPA 8321B	Primidone-d5	104	P	30 - 160
EPA 8321B	Sucralose-d6	93.3	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A106265

Included Lab Sample IDs: 2256846, 2256847, 2256852, 2256853, 2256854

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.0	99.0	P/P	95 - 105

Reference Method: SM 2120 B-2011

Run ID: A106266

Included Lab Sample IDs: 2256846, 2256847, 2256852, 2256853, 2256854

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	102	103	P/P	90 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A106267

Included Lab Sample IDs: 2256850, 2256851, 2256858, 2256859, 2256860

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	101	99.8	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A106296

Included Lab Sample IDs: 2256848, 2256849, 2256855, 2256856, 2256857

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

Reference Method: EPA 8321B

Run ID: A106300

Included Lab Sample IDs: 2256868, 2256869, 2256870

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	99.7	98.4	P/P	60 - 160
Glufosinate	101	104	P/P	60 - 160
Glyphosate	101	105	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A106301

Included Lab Sample IDs: 2256868, 2256869, 2256870

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	90.0	83.9	P/P	60 - 160
Endothall	86.2	74.9	P/P	60 - 160
Sucralose	94.1	95.9	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A106370

Included Lab Sample IDs: 2256848, 2256849, 2256855

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.5	97.0	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A106375

Included Lab Sample IDs: 2256856, 2256857

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	97.5	98.8	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A106390

Included Lab Sample IDs: 2256868, 2256869, 2256870

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	93.6	93.1	P/P	50 - 150
2,4,5-T	104	96.6	P/P	50 - 150
Acetaminophen	107	102	P/P	60 - 160
Acetamiprid	104	103	P/P	50 - 150
Afidopyropen	113	112	P/P	50 - 150
Bentazon	98.8	104	P/P	50 - 160
Benzovindiflupyr	110	113	P/P	50 - 160
Carbamazepine	106	105	P/P	60 - 150
Clothianidin	103	127	P/P	60 - 150
Dinotefuran	113	97.9	P/P	50 - 150
Diuron	113	113	P/P	60 - 160
Fenuron	104	101	P/P	60 - 150
Fluridone	111	97.5	P/P	60 - 160
Hydrocodone	103	107	P/P	60 - 150
Ibuprofen	110	96.7	P/P	50 - 160
Imazapyr	103	96.9	P/P	50 - 160
Imidacloprid	101	95.5	P/P	60 - 150
Linuron	106	104	P/P	60 - 150
Mandestrobin	110	113	P/P	50 - 150
MCPP	99.4	107	P/P	50 - 150
Naproxen	87.1	89.8	P/P	50 - 160
Primidone	102	113	P/P	60 - 150
Pyraclostrobin	106	105	P/P	60 - 150
Thiamethoxam	107	97.2	P/P	50 - 150
Tolfenpyrad	102	101	P/P	60 - 150
Triclopyr	106	109	P/P	50 - 150

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A106396

Included Lab Sample IDs: 2256848, 2256849, 2256855, 2256856, 2256857

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	96.4	96.5	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A106423

Included Lab Sample IDs: 2256846, 2256847, 2256852, 2256853, 2256854

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

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-2011

Run ID: A106432

Included Lab Sample IDs: 2256848, 2256849, 2256855, 2256856, 2256857

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.0	97.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A106468

Included Lab Sample IDs: 2256848, 2256849, 2256855, 2256856, 2256857

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	100	96.4	P/P	90 - 110
Kjeldahl Nitrogen	93.3	100	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A106477

Included Lab Sample IDs: 2256846, 2256847, 2256852, 2256853, 2256854

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	99.3	P/P	90 - 110
Total Alkalinity	95.5	102	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A106477

Included Lab Sample IDs: 2256846, 2256847, 2256852, 2256853, 2256854

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

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

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements. Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 180.1 Rev. 2.0	Turbidity					1.89	
EPA 300.0 Rev. 2.1	Chloride	102	99.6	100		0.827	
	Sulfate	100	99.6	98.0		1.15	
EPA 350.1 Rev. 2.0	Ammonia-N	97.2	94.8	96.6			1.29
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.9	109	107			1.51
	Kjeldahl Nitrogen	106					2.60
EPA 353.2 Rev. 2.0	NO2NO3-N	99.0	94.0				0.193
EPA 365.1 Rev. 2.0	Total-P	103	104	105			1.61
	Total-P	102					0.800
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101	103	103			0.486
EPA 8321B	2,4-D	120	122	124			1.26
	2,4,5-T	128	113	116			3.02
	Acesulfame K	83.9	105	77.0			31.2
	Acetaminophen	83.0	112	112			0.0414
	Acetamiprid	90.6	82.4	74.6			10.0
	Afidopyropen	73.6	71.1	57.7			20.9
	AMPA	97.9	79.8	84.1			5.21
	Bentazon	92.3	79.5	74.5			4.42
	Benzovindiflupyr	92.8	84.5	91.2			7.62
	Carbamazepine	92.0	85.2	87.3			2.49
	Clothianidin	92.2	114	107			6.72
	Dinotefuran	88.1	125	123			1.79
	Diuron	73.7	75.7	68.5			9.87
	Endothall	72.9	102	99.8			1.71
	Fenuron	99.7	83.1	79.1			4.91
	Fluridone	87.6	79.7	81.1			1.73
	Glufosinate	96.7	94.5	100			5.98
	Glyphosate	102	100	100			0.0759
	Hydrocodone	94.6	108	107			1.10
	Ibuprofen	86.0	84.8	67.3			23.0
	Imazapyr	101	168	159			5.53
	Imidacloprid	92.6	148	155			3.73
	Linuron	73.3	70.6	70.0			0.884
	Mandestrobin	94.1	94.0	90.3			4.05
	MCPP	125	113	112			0.487
	Naproxen	82.1	97.4	75.5			25.3
	Primidone	93.3	122	111			9.27
	Pyraclostrobin	81.1	88.6	80.2			9.94
	Sucralose	92.1	94.2	101			6.69
	Thiamethoxam	91.7	145	148			2.44
	Tolfenpyrad	47.4	53.7	55.9			4.05
	Triclopyr	122	121	113			6.44
SM 2120 B-2011	Color (true)	101				1.48	
SM 2320 B-2011	Total Alkalinity	102				3.03	
SM 2540 C-2011	TDS					8.70	
SM 4500 F-C-2011	Fluoride	98.5	101	101			0.0
SM 5310 B-2011	Organic Carbon	95.9	95.9	95.5			0.323

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2256846, 2256847, 2256852, 2256853, 2256854

Reference Method Descriptions

Method	Description	Associated Samples
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2256846, 2256847, 2256852, 2256853, 2256854
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2256846, 2256847, 2256852, 2256853, 2256854
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2256848, 2256849, 2256855, 2256856, 2256857
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2256848, 2256849, 2256855, 2256856, 2256857
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2256848, 2256849, 2256855, 2256856, 2256857
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2256848, 2256849, 2256855, 2256856, 2256857
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2256850, 2256851, 2256858, 2256859, 2256860
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2256868, 2256869, 2256870
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2256846, 2256847, 2256852, 2256853, 2256854
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2256846, 2256847, 2256852, 2256853, 2256854
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2256846, 2256847, 2256852, 2256853, 2256854
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2256846, 2256847, 2256852, 2256853, 2256854
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2256846, 2256847, 2256852, 2256853, 2256854
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2256848, 2256849, 2256855, 2256856, 2256857

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	06/24/2021			06/24/2021 15:19	Sarah A Nixon	2256846, 2256847, 2256852, 2256853, 2256854
EPA 300.0 Rev. 2.1	06/24/2021			07/02/2021 23:25	Lipi Saha	2256846
	06/24/2021			07/02/2021 23:37	Lipi Saha	2256847
	06/24/2021			07/02/2021 23:50	Lipi Saha	2256852
	06/24/2021			07/03/2021 00:02	Lipi Saha	2256853
	06/24/2021			07/03/2021 00:14	Lipi Saha	2256854
EPA 350.1 Rev. 2.0	06/24/2021			07/01/2021 14:20	Roberta Tatti	2256848
	06/24/2021			07/01/2021 14:21	Roberta Tatti	2256849
	06/24/2021			07/01/2021 14:22	Roberta Tatti	2256855
	06/24/2021			07/01/2021 14:24	Roberta Tatti	2256856
	06/24/2021			07/01/2021 14:25	Roberta Tatti	2256857
EPA 351.2 Rev. 2.0	06/24/2021	07/01/2021 14:00	Benjamin T. Nordmann	07/06/2021 18:58	Letuzia M De Oliveira	2256848
	06/24/2021	07/01/2021 14:00	Benjamin T. Nordmann	07/06/2021 19:06	Letuzia M De Oliveira	2256849
	06/24/2021	07/01/2021 14:00	Benjamin T. Nordmann	07/06/2021 19:08	Letuzia M De Oliveira	2256855
	06/24/2021	07/01/2021 14:00	Benjamin T. Nordmann	07/06/2021 19:09	Letuzia M De Oliveira	2256856
	06/24/2021	07/01/2021 14:00	Benjamin T. Nordmann	07/06/2021 19:11	Letuzia M De Oliveira	2256857
EPA 353.2 Rev. 2.0	06/24/2021			06/25/2021 09:11	Beverly Y. Sanders	2256848
	06/24/2021			06/25/2021 09:15	Beverly Y. Sanders	2256856
	06/24/2021			06/25/2021 09:16	Beverly Y. Sanders	2256857
	06/24/2021			06/25/2021 09:55	Beverly Y. Sanders	2256849
	06/24/2021			06/25/2021 09:56	Beverly Y. Sanders	2256855
EPA 365.1 Rev. 2.0	06/24/2021	06/29/2021 13:16	Madeline Gruver	06/30/2021 12:41	Shengyu Ding	2256848
	06/24/2021	06/29/2021 13:16	Madeline Gruver	06/30/2021 12:42	Shengyu Ding	2256849
	06/24/2021	06/29/2021 13:16	Madeline Gruver	06/30/2021 12:43	Shengyu Ding	2256855
	06/24/2021	06/29/2021 13:16	Madeline Gruver	06/30/2021 15:37	Shengyu Ding	2256856
	06/24/2021	06/29/2021 13:16	Madeline Gruver	06/30/2021 15:38	Shengyu Ding	2256857
EPA 365.1 Rev. 2.0 dissolved	06/24/2021			06/24/2021 15:38	Ping Hua	2256850, 2256851
	06/24/2021			06/24/2021 15:39	Ping Hua	2256858
	06/24/2021			06/24/2021 15:40	Ping Hua	2256859
	06/24/2021			06/24/2021 15:41	Ping Hua	2256860
EPA 8321B	06/24/2021	06/25/2021 08:00	Pramila Ghimire	06/25/2021 13:34	Juyoung Kim	2256868
	06/24/2021	06/25/2021 08:00	Pramila Ghimire	06/25/2021 13:45	Juyoung Kim	2256869
	06/24/2021	06/25/2021 08:00	Pramila Ghimire	06/25/2021 13:55	Juyoung Kim	2256870
	06/24/2021	06/25/2021 08:00	Pramila Ghimire	06/25/2021 22:06	Pramila Ghimire	2256868
	06/24/2021	06/25/2021 08:00	Pramila Ghimire	06/25/2021 22:20	Pramila Ghimire	2256869
	06/24/2021	06/25/2021 08:00	Pramila Ghimire	06/25/2021 22:34	Pramila Ghimire	2256870
	06/24/2021	06/30/2021 09:00	Hoor Shaik	06/30/2021 19:53	Juyoung Kim	2256868
	06/24/2021	06/30/2021 09:00	Hoor Shaik	06/30/2021 20:28	Juyoung Kim	2256869
	06/24/2021	06/30/2021 09:00	Hoor Shaik	06/30/2021 21:03	Juyoung Kim	2256870

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2120 B-2011	06/24/2021			06/24/2021 15:51	Benjamin T. Nordmann	2256846
	06/24/2021			06/24/2021 15:52	Benjamin T. Nordmann	2256847
	06/24/2021			06/24/2021 15:53	Benjamin T. Nordmann	2256852
	06/24/2021			06/24/2021 15:54	Benjamin T. Nordmann	2256853, 2256854
SM 2320 B-2011	06/24/2021			07/06/2021 22:25	Patrick M. Roche	2256854
	06/24/2021			07/07/2021 00:29	Patrick M. Roche	2256846
	06/24/2021			07/07/2021 00:38	Patrick M. Roche	2256847
	06/24/2021			07/07/2021 00:52	Patrick M. Roche	2256852
SM 2540 C-2011	06/24/2021			07/07/2021 01:05	Patrick M. Roche	2256853
	06/24/2021			06/28/2021 14:25	Yijie Li	2256846, 2256847, 2256852, 2256853, 2256854
SM 2540 D-2011	06/24/2021			06/28/2021 14:25	Yijie Li	2256846, 2256847, 2256852, 2256853, 2256854
SM 4500 F-C-2011	06/24/2021			07/06/2021 22:15	Patrick M. Roche	2256854
	06/24/2021			07/07/2021 00:29	Patrick M. Roche	2256846
	06/24/2021			07/07/2021 00:38	Patrick M. Roche	2256847
	06/24/2021			07/07/2021 00:52	Patrick M. Roche	2256852
	06/24/2021			07/07/2021 01:05	Patrick M. Roche	2256853
SM 5310 B-2011	06/24/2021			07/01/2021 06:47	Madeline Gruver	2256848
	06/24/2021			07/01/2021 07:00	Madeline Gruver	2256849
	06/24/2021			07/01/2021 07:13	Madeline Gruver	2256855
	06/24/2021			07/01/2021 07:25	Madeline Gruver	2256856
	06/24/2021			07/01/2021 07:40	Madeline Gruver	2256857