

Chemical Analysis Report

SO-DIST-2019-06-25-01

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

Event Description: **Highlands**
Request ID: **RQ-2019-06-24-13**
Customer: **SO-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FLDEP South District Office
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Certified by: Liang Lin, Environmental Administrator

Date Certified: 11-JUL-2019 15:11

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: Little Charlie Bowlegs

Collection Date/Time: 06/24/2019 11:35

Field ID: G3SD0093

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2098189	EPA 180.1 Rev. 2.0	Turbidity	1.7		NTU	P366308	
	EPA 300.0 Rev. 2.1	Chloride	16		mg Cl/L	P366537	
		Sulfate	11		mg SO4/L	P366538	
	SM 2120 B	Color (true)	480		PCU	P366289	
	SM 2320 B-97	Total Alkalinity	2.9		mg CaCO3/L	P366445	RPD
	SM 2540 C-97	TDS	152		mg/L	P366618	
	SM 2540 D-97	TSS	2	U	mg/L	P366610	
2098190	SM 4500 F-C-97	Fluoride	0.071	I	mg F/L	P366583	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.036		mg N/L	P366754	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.1		mg N/L	P366395	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P366438	
	EPA 365.1 Rev. 2.0	Total-P	0.35		mg P/L	P366339	
2098191	SM 5310 B-00	Organic Carbon	46		mg C/L	P366423	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.27		mg P/L	P366292	
2098201	EPA 8321B	Acesulfame K**	0.10	U	ug/L	P366232	
		2,4-D	0.0020	U	ug/L	P366199	MS
		AMPA**	0.10	U	ug/L	P366232	
		Acetaminophen**	0.0080	U	ug/L	P366199	
		Endothall**	0.25	U	ug/L	P366232	
		Glufosinate**	0.10	U	ug/L	P366232	
		Glyphosate**	0.10	U	ug/L	P366232	
		Sucralose**	0.019	I	ug/L	P366232	
		Bentazon	8.0E-04	U	ug/L	P366199	
		Carbamazepine**	8.0E-04	U	ug/L	P366199	
		Diuron	0.0020	U	ug/L	P366199	
		Fenuron	0.016	U	ug/L	P366199	
		Fluridone**	8.0E-04	U	ug/L	P366199	
		Imazapyr**	0.0040	U	ug/L	P366199	MS
		Hydrocodone**	0.0020	U	ug/L	P366199	
		Ibuprofen**	0.020	U	ug/L	P366199	
		Imidacloprid	0.0020	U	ug/L	P366199	MS
		Linuron	0.0040	U	ug/L	P366199	
		MCP	0.0020	U	ug/L	P366199	MS
		Naproxen**	0.0080	U	ug/L	P366199	
		Primidone**	0.0040	U	ug/L	P366199	
		Pyraclostrobin**	0.0020	U	ug/L	P366199	
		Triclopyr**	0.0040	U	ug/L	P366199	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Lake Damon @ Middle

Collection Date/Time: 06/24/2019 12:30

Field ID: G4SD0168

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2098177	EPA 180.1 Rev. 2.0	Turbidity	1.3		NTU	P366308	
	EPA 300.0 Rev. 2.1	Chloride	17		mg Cl/L	P366537	
		Sulfate	34		mg SO4/L	P366538	
	SM 2120 B	Color (true)	10		PCU	P366288	
	SM 2320 B-97	Total Alkalinity	21		mg CaCO3/L	P366445	RPD
	SM 2540 C-97	TDS	108	A	mg/L	P366618	
	SM 2540 D-97	TSS	2	IA	mg/L	P366610	
	SM 4500 F-C-97	Fluoride	0.11		mg F/L	P366583	
2098181	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	I	mg N/L	P366549	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.37		mg N/L	P366342	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.005	I	mg N/L	P366437	
	EPA 365.1 Rev. 2.0	Total-P	0.011		mg P/L	P366338	
	SM 5310 B-00	Organic Carbon	4.2		mg C/L	P366422	
2098185	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P366292	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Lake Pythias @ Middle

Collection Date/Time: 06/24/2019 13:25

Field ID: G4SD0138

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2098178	EPA 180.1 Rev. 2.0	Turbidity	1.7		NTU	P366308	
	EPA 300.0 Rev. 2.1	Chloride	20		mg Cl/L	P366537	
		Sulfate	35		mg SO4/L	P366538	
	SM 2120 B	Color (true)	10		PCU	P366289	
	SM 2320 B-97	Total Alkalinity	3.0	AJ	mg CaCO3/L	P366445	RPD
	SM 2540 C-97	TDS	98		mg/L	P366618	
	SM 2540 D-97	TSS	2	U	mg/L	P366610	
	SM 4500 F-C-97	Fluoride	0.13		mg F/L	P366583	
2098182	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P366549	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.37	J	mg N/L	P366395	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P366437	
	EPA 365.1 Rev. 2.0	Total-P	0.016		mg P/L	P366339	
	SM 5310 B-00	Organic Carbon	4.4		mg C/L	P366422	
2098186	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P366292	

Ref. Method and Comment:

SM 2320 B-97: Refer to the narrative for an explanation of QC Codes.

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 351.2 Rev. 2.0: Refer to the narrative for an explanation of QC Codes.

Sample Location: LittleRedWaterLake@Mid

Collection Date/Time: 06/24/2019 14:05

Field ID: G4SD0171

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2098179	EPA 180.1 Rev. 2.0	Turbidity	1.6		NTU	P366308	
	EPA 300.0 Rev. 2.1	Chloride	17		mg Cl/L	P366537	
		Sulfate	9.4		mg SO4/L	P366538	
	SM 2120 B	Color (true)	49	A	PCU	P366289	
	SM 2320 B-97	Total Alkalinity	3.3		mg CaCO3/L	P366445	RPD
	SM 2540 C-97	TDS	72		mg/L	P366618	
	SM 2540 D-97	TSS	2	U	mg/L	P366610	
	SM 4500 F-C-97	Fluoride	0.055	I	mg F/L	P366583	
2098183	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P366549	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.65		mg N/L	P366395	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P366437	
	EPA 365.1 Rev. 2.0	Total-P	0.030		mg P/L	P366339	
	SM 5310 B-00	Organic Carbon	11		mg C/L	P366423	
2098187	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P366292	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Josephine Creek EofCR17

Collection Date/Time: 06/24/2019 14:50

Field ID: G4SD0104

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2098180	EPA 180.1 Rev. 2.0	Turbidity	1.9		NTU	P366308	
	EPA 300.0 Rev. 2.1	Chloride	13		mg Cl/L	P366537	
		Sulfate	17		mg SO4/L	P366538	
	SM 2120 B	Color (true)	94		PCU	P366289	
	SM 2320 B-97	Total Alkalinity	5.4		mg CaCO3/L	P366445	RPD
	SM 2540 C-97	TDS	84		mg/L	P366618	
	SM 2540 D-97	TSS	2	I	mg/L	P366610	
	SM 4500 F-C-97	Fluoride	0.042	I	mg F/L	P366583	
2098184	EPA 350.1 Rev. 2.0	Ammonia-N	0.037		mg N/L	P366756	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.70		mg N/L	P366395	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.086		mg N/L	P366437	
	EPA 365.1 Rev. 2.0	Total-P	0.046		mg P/L	P366339	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P366423	
2098188	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.016		mg P/L	P366292	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Grassy Creek @CR621E

Collection Date/Time: 06/24/2019 15:20

Field ID: G4SD0165

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2098174	EPA 180.1 Rev. 2.0	Turbidity	1.8		NTU	P366308	
	EPA 300.0 Rev. 2.1	Chloride	20		mg Cl/L	P366537	
		Sulfate	25		mg SO4/L	P366538	
	SM 2120 B	Color (true)	17	A	PCU	P366288	
	SM 2320 B-97	Total Alkalinity	10		mg CaCO3/L	P366445	RPD
	SM 2540 C-97	TDS	95		mg/L	P366617	
	SM 2540 D-97	TSS	2	I	mg/L	P366609	
	SM 4500 F-C-97	Fluoride	0.047	I	mg F/L	P366583	
2098175	EPA 350.1 Rev. 2.0	Ammonia-N	0.01		mg N/L	P366549	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.57		mg N/L	P366342	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.006	I	mg N/L	P366437	
	EPA 365.1 Rev. 2.0	Total-P	0.023		mg P/L	P366338	
	SM 5310 B-00	Organic Carbon	7.8		mg C/L	P366422	
2098176	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P366292	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P366308

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P366537

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P366538

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366549

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366754

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366756

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366342

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366395

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P366437

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P366438

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P366338

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P366339

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P366292

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

Reference Method: EPA 8321B
Batch ID: P366199

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Bentazon	8.0E-04	U	ug/L
Carbamazepine	8.0E-04	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
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P366232

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

Quality Assurance Report

Method Blank Results

Reference Method: SM 2120 B
Batch ID: P366288

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P366289

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P366445

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

Reference Method: SM 2540 C-97
Batch ID: P366617

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P366618

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P366609

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P366610

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P366583

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P366422

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

Quality Assurance Report

Method Blank Results

Reference Method: SM 5310 B-00
Batch ID: P366423

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: P366537

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P366538

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366549

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366754

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366756

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366342

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366395

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P366437

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO ₂ NO ₃ -N	100		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P366438

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO ₂ NO ₃ -N	101		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P366338

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P366339

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P366292

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

Reference Method: EPA 8321B
Batch ID: P366199

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	116		P	40 - 150
Acetaminophen	82.7		P	30 - 150
Bentazon	117		P	30 - 150
Carbamazepine	82.5		P	40 - 150
Diuron	83.2		P	40 - 150
Fenuron	100		P	40 - 150
Fluridone	93.2		P	40 - 150
Hydrocodone	98.7		P	40 - 150
Ibuprofen	83.5		P	30 - 150
Imazapyr	131		P	40 - 150
Imidacloprid	87.5		P	40 - 150
Linuron	63.2		P	40 - 150
MCPP	137		P	40 - 150
Naproxen	84.5		P	40 - 150
Primidone	79.5		P	40 - 150
Pyraclostrobin	69.4		P	30 - 150
Triclopyr	107		P	30 - 150

Reference Method: EPA 8321B
Batch ID: P366232

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	116		P	40 - 150
AMPA	95.3		P	40 - 150
Endothall	94.4		P	40 - 150
Glufosinate	86.8		P	40 - 150
Glyphosate	95.3		P	40 - 140
Sucralose	103		P	40 - 150

Reference Method: SM 2120 B
Batch ID: P366288

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2120 B
Batch ID: P366289

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	103		P	85 - 115

Reference Method: SM 2320 B-97
Batch ID: P366445

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	98 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P366583

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.0		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P366422

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

Reference Method: SM 5310 B-00
Batch ID: P366423

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.6		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P366537

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2097920	Chloride	102		P	90 - 110
2098211	Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P366538

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2097920	Sulfate	101		P	90 - 110
2098211	Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366549

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2098175	Ammonia-N	105	106	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366754

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2098686	Ammonia-N	103	102	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366756

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2098184	Ammonia-N	104	105	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366342

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2098143	Kjeldahl Nitrogen	109	106	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366395

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2098182	Kjeldahl Nitrogen	114	106	F/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P366437

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2098181	NO2NO3-N	99.0	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P366438

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2098190	NO2NO3-N	94.0	93.5	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P366338

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2098143	Total-P	102	108	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P366339

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2098182	Total-P	104	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P366292

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2098176	O-Phosphate-P	96.6	97.3	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P366199

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2097411	2,4-D	137	161	P/F	40 - 150
2097411	Acetaminophen	101	111	P/P	30 - 150
2097411	Bentazon	101	106	P/P	30 - 150
2097411	Carbamazepine	84.4	85.3	P/P	40 - 150
2097411	Diuron	77.0	78.4	P/P	40 - 150
2097411	Fenuron	93.2	96.6	P/P	40 - 150
2097411	Fluridone	85.2	84.1	P/P	40 - 150
2097411	Hydrocodone	116	117	P/P	40 - 150
2097411	Ibuprofen	83.3	90.6	P/P	30 - 150
2097411	Imazapyr	139	182	P/F	40 - 150
2097411	Imidacloprid	174	198	F/F	40 - 150
2097411	Linuron	55.0	53.0	P/P	40 - 150
2097411	MCPP	187	189	F/F	40 - 150
2097411	Naproxen	95.4	81.8	P/P	40 - 150
2097411	Primidone	92.6	99.7	P/P	40 - 150
2097411	Pyraclostrobin	71.8	73.2	P/P	30 - 150
2097411	Triclopyr	122	136	P/P	30 - 150

Reference Method: EPA 8321B
Batch ID: P366232

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2097186	Acesulfame K	134	139	P/P	40 - 150
2097186	AMPA	70.6	71.9	P/P	40 - 150
2097186	Endothall	97.7	100	P/P	40 - 150
2097186	Glufosinate	82.5	83.7	P/P	40 - 150
2097186	Glyphosate	77.1	79.8	P/P	40 - 140
2097186	Sucralose	107	106	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P366583

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2098178	Fluoride	97.8	99.1	P/P	89 - 106

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 5310 B-00
Batch ID: P366422

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2097838	Organic Carbon	92.5	91.7	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P366423

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2098183	Organic Carbon	91.9	92.0	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P366308

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098214	Turbidity	3.39	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P366537

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2097920	Chloride	0.427	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P366538

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2097920	Sulfate	0.752	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366549

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098175	Ammonia-N	0.767	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366754

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098686	Ammonia-N	0.735	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366756

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098184	Ammonia-N	0.280	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366342

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098143	Kjeldahl Nitrogen	1.97	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366395

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098182	Kjeldahl Nitrogen	5.40	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P366437

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098181	NO2NO3-N	0.980	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P366438

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098190	NO2NO3-N	0.534	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P366338

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098143	Total-P	5.73	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P366339

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098182	Total-P	1.15	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P366292

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098176	O-Phosphate-P	0.722	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P366199

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2097411	2,4-D	11.9	Spike	P	0 - 30
2097411	Acetaminophen	8.61	Spike	P	0 - 30
2097411	Bentazon	2.77	Spike	P	0 - 30
2097411	Carbamazepine	1.14	Spike	P	0 - 30
2097411	Diuron	1.59	Spike	P	0 - 30
2097411	Fenuron	3.59	Spike	P	0 - 30
2097411	Fluridone	1.25	Spike	P	0 - 30
2097411	Hydrocodone	1.01	Spike	P	0 - 30
2097411	Ibuprofen	8.35	Spike	P	0 - 30
2097411	Imazapyr	20.8	Spike	P	0 - 30
2097411	Imidacloprid	6.52	Spike	P	0 - 30
2097411	Linuron	3.84	Spike	P	0 - 30
2097411	MCP	1.01	Spike	P	0 - 30
2097411	Naproxen	15.4	Spike	P	0 - 30
2097411	Primidone	7.35	Spike	P	0 - 30
2097411	Pyraclostrobin	1.99	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P366199

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2097411	Triclopyr	11.2	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P366232

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2097186	Acesulfame K	4.04	Spike	P	0 - 30
2097186	AMPA	1.74	Spike	P	0 - 30
2097186	Endothall	2.39	Spike	P	0 - 30
2097186	Glufosinate	1.47	Spike	P	0 - 30
2097186	Glyphosate	3.43	Spike	P	0 - 30
2097186	Sucralose	1.04	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P366288

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098174	Color (true)	3.72	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P366289

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098179	Color (true)	1.33	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P366445

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098178	Total Alkalinity	5.44	Sample	F	0 - 2.8

Reference Method: SM 2540 C-97
Batch ID: P366617

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2097920	TDS	3.10	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P366618

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098177	TDS	5.56	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 4500 F-C-97
Batch ID: P366583

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098178	Fluoride	0.979	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
Batch ID: P366422

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2097838	Organic Carbon	0.757	Spike	P	0 - 20

Reference Method: SM 5310 B-00
Batch ID: P366423

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098183	Organic Carbon	0.104	Spike	P	0 - 20

* Sample, spike and/or laboratory control sample precision (LCS) is reported.
Replicate spike precision may be reported when sample results are below quantifiable levels.

Quality Assurance Report Surrogates

Lab Sample ID: 2098201
Field Sample ID: G3SD0093

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	127	P	30 - 160
EPA 8321B	Acetaminophen-d4	82.7	P	30 - 160
EPA 8321B	Carbamazepine-d10	63.1	P	30 - 160
EPA 8321B	Diuron-d6	62.4	P	30 - 160
EPA 8321B	Endothall-d6	97.4	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	57.0	P	30 - 160
EPA 8321B	Ibuprofen-d3	86.0	P	30 - 160
EPA 8321B	Primidone-d5	64.6	P	30 - 160
EPA 8321B	Sucralose-d6	119	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A92336

Included Lab Sample IDs: 2098174, 2098177, 2098178, 2098179, 2098180, 2098189

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

Reference Method: SM 2120 B

Run ID: A92345

Included Lab Sample IDs: 2098174, 2098177, 2098178, 2098179, 2098180, 2098189

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A92347

Included Lab Sample IDs: 2098176, 2098185, 2098186, 2098187, 2098188, 2098191

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	98.5	P/P	90 - 110
O-Phosphate-P	98.1	98.9	P/P	90 - 110
O-Phosphate-P	99.0	98.1	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A92356

Included Lab Sample IDs: 2098174, 2098177, 2098178, 2098179, 2098180, 2098189

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	96.5	98.5	P/P	95 - 105

Reference Method: EPA 8321B

Run ID: A92361

Included Lab Sample IDs: 2098201

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	71.0	130	P/P	60 - 160
Endothall	98.6	102	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A92363

Included Lab Sample IDs: 2098201

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	71.7	74.5	P/P	60 - 160
Glufosinate	80.5	119	P/P	60 - 160
Glyphosate	82.8	127	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A92372
Included Lab Sample IDs: 2098201

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	103	107	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A92389
Included Lab Sample IDs: 2098190

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.6	97.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A92397
Included Lab Sample IDs: 2098175, 2098181, 2098182, 2098183, 2098184

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	100	P/P	90 - 110
Total-P	99.5	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A92400
Included Lab Sample IDs: 2098175, 2098181

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	94.0	97.2	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A92403
Included Lab Sample IDs: 2098175, 2098181, 2098182, 2098183, 2098184, 2098190

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	100	P/P	90 - 110
NO2NO3-N	101	102	P/P	90 - 110
NO2NO3-N	102	102	P/P	90 - 110

Reference Method: SM 5310 B-00
Run ID: A92406
Included Lab Sample IDs: 2098175, 2098181, 2098182, 2098183, 2098184, 2098190

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	94.8	95.2	P/P	90 - 110
Organic Carbon	95.2	95.2	P/P	90 - 110

Reference Method: SM 2320 B-97
Run ID: A92417
Included Lab Sample IDs: 2098174, 2098177, 2098178, 2098179, 2098180, 2098189

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A92461

Included Lab Sample IDs: 2098175, 2098181, 2098182, 2098183

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	106	107	P/P	90 - 110
Ammonia-N	107	107	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A92486

Included Lab Sample IDs: 2098182, 2098183, 2098184, 2098190

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	100	97.1	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A92490

Included Lab Sample IDs: 2098174, 2098177, 2098178, 2098179, 2098180, 2098189

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

Reference Method: EPA 8321B

Run ID: A92569

Included Lab Sample IDs: 2098201

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	81.7	79.9	P/P	50 - 150
Acetaminophen	103	101	P/P	60 - 160
Bentazon	112	114	P/P	50 - 160
Carbamazepine	104	102	P/P	60 - 150
Diuron	106	103	P/P	60 - 150
Fenuron	107	104	P/P	60 - 150
Fluridone	102	112	P/P	60 - 160
Hydrocodone	94.6	102	P/P	60 - 150
Ibuprofen	82.6	90.0	P/P	50 - 160
Imazapyr	122	112	P/P	50 - 150
Imidacloprid	88.9	84.8	P/P	60 - 150
Linuron	91.4	88.0	P/P	60 - 150
MCPP	81.6	80.0	P/P	50 - 150
Naproxen	132	101	P/P	50 - 160
Primidone	100	95.2	P/P	60 - 150
Pyraclostrobin	78.6	80.7	P/P	60 - 150
Triclopyr	80.8	79.3	P/P	50 - 150

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A92572

Included Lab Sample IDs: 2098184, 2098190

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	103	104	P/P	90 - 110
Ammonia-N	105	105	P/P	90 - 110

Quality Assurance Report

Calibration Verification

* 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					3.39	
EPA 300.0 Rev. 2.1	Chloride	101	102	101		0.427	
	Sulfate	101	101	101		0.752	
EPA 350.1 Rev. 2.0	Ammonia-N	106	105	106			0.767
	Ammonia-N	102	103	102			0.735
	Ammonia-N	104	104	105			0.280
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	106	109	106			1.97
	Kjeldahl Nitrogen	99.6	114	106			5.40
EPA 353.2 Rev. 2.0	NO2NO3-N	100	99.0	100			0.980
	NO2NO3-N	101	94.0	93.5			0.534
EPA 365.1 Rev. 2.0	Total-P	102	102	108			5.73
	Total-P	100	104	105			1.15
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101	96.6	97.3			0.722
EPA 8321B	2,4-D	116	137	161			11.9
	Acesulfame K	116	134	139			4.04
	Acetaminophen	82.7	101	111			8.61
	AMPA	95.3	70.6	71.9			1.74
	Bentazon	117	101	106			2.77
	Carbamazepine	82.5	84.4	85.3			1.14
	Diuron	83.2	77.0	78.4			1.59
	Endothall	94.4	97.7	100			2.39
	Fenuron	100	93.2	96.6			3.59
	Fluridone	93.2	85.2	84.1			1.25
	Glufosinate	86.8	83.7	82.5			1.47
	Glyphosate	95.3	77.1	79.8			3.43
	Hydrocodone	98.7	116	117			1.01
	Ibuprofen	83.5	83.3	90.6			8.35
	Imazapyr	131	139	182			20.8
	Imidacloprid	87.5	174	198			6.52
	Linuron	63.2	55.0	53.0			3.84
	MCPP	137	187	189			1.01
	Naproxen	84.5	95.4	81.8			15.4
	Primidone	79.5	92.6	99.7			7.35
	Pyraclostrobin	69.4	71.8	73.2			1.99
	Sucralose	103	107	106			1.04
	Triclopyr	107	122	136			11.2
SM 2120 B	Color (true)	101				3.72	
	Color (true)	103				1.33	
SM 2320 B-97	Total Alkalinity	103				5.44	
SM 2540 C-97	TDS					3.10	
	TDS					5.56	
SM 4500 F-C-97	Fluoride	98.0	97.8	99.1			0.979
SM 5310 B-00	Organic Carbon	95.2	92.5	91.7			0.757
	Organic Carbon	95.6	91.9	92.0			0.104

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2098174, 2098177, 2098178, 2098179, 2098180, 2098189
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2098174, 2098177, 2098178, 2098179, 2098180, 2098189

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2098174, 2098177, 2098178, 2098179, 2098180, 2098189
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2098175, 2098181, 2098182, 2098183, 2098184, 2098190
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2098175, 2098181, 2098182, 2098183, 2098184, 2098190
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2098175, 2098181, 2098182, 2098183, 2098184, 2098190
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2098175, 2098181, 2098182, 2098183, 2098184, 2098190
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2098176, 2098185, 2098186, 2098187, 2098188, 2098191
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2098201
SM 2120 B / E31780	True Color measured at 450 nm	2098174, 2098177, 2098178, 2098179, 2098180, 2098189
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2098174, 2098177, 2098178, 2098179, 2098180, 2098189
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2098174, 2098177, 2098178, 2098179, 2098180, 2098189
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2098174, 2098177, 2098178, 2098179, 2098180, 2098189
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2098174, 2098177, 2098178, 2098179, 2098180, 2098189
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2098175, 2098181, 2098182, 2098183, 2098184, 2098190

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	06/25/2019			06/25/2019 16:55	Adrian Shelby	2098174, 2098177, 2098178, 2098179, 2098180, 2098189
EPA 300.0 Rev. 2.1	06/25/2019			06/28/2019 20:00	Jhamieka S. Greenwood	2098174
	06/25/2019			06/28/2019 20:13	Jhamieka S. Greenwood	2098177
	06/25/2019			06/28/2019 20:25	Jhamieka S. Greenwood	2098178
	06/25/2019			06/28/2019 21:01	Jhamieka S. Greenwood	2098179
	06/25/2019			06/28/2019 21:13	Jhamieka S. Greenwood	2098180
	06/25/2019			06/28/2019 21:25	Jhamieka S. Greenwood	2098189
EPA 350.1 Rev. 2.0	06/25/2019			06/27/2019 13:41	Ping Hua	2098175
	06/25/2019			06/27/2019 13:59	Ping Hua	2098181
	06/25/2019			06/27/2019 14:01	Ping Hua	2098182
	06/25/2019			06/27/2019 14:02	Ping Hua	2098183
	06/25/2019			07/03/2019 11:21	Ping Hua	2098190
	06/25/2019			07/03/2019 12:02	Ping Hua	2098184
EPA 351.2 Rev. 2.0	06/25/2019	06/26/2019 11:25	Sima Feizi	06/27/2019 10:56	Joseph Suarez	2098175
	06/25/2019	06/26/2019 11:25	Sima Feizi	06/27/2019 10:57	Joseph Suarez	2098181
	06/25/2019	06/27/2019 11:45	Sima Feizi	07/01/2019 16:30	Joseph Suarez	2098182
	06/25/2019	06/27/2019 11:45	Sima Feizi	07/01/2019 16:34	Joseph Suarez	2098183
	06/25/2019	06/27/2019 11:45	Sima Feizi	07/01/2019 16:36	Joseph Suarez	2098184
	06/25/2019	06/27/2019 11:45	Sima Feizi	07/01/2019 16:37	Joseph Suarez	2098190
EPA 353.2 Rev. 2.0	06/25/2019			06/27/2019 12:40	Beverly Y. Sanders	2098190
	06/25/2019			06/27/2019 14:27	Beverly Y. Sanders	2098181
	06/25/2019			06/27/2019 14:39	Beverly Y. Sanders	2098175
	06/25/2019			06/27/2019 14:40	Beverly Y. Sanders	2098182
	06/25/2019			06/27/2019 14:41	Beverly Y. Sanders	2098183
	06/25/2019			06/27/2019 14:43	Beverly Y. Sanders	2098184
EPA 365.1 Rev. 2.0	06/25/2019	06/26/2019 12:15	Sima Feizi	06/27/2019 12:07	Lipi Saha	2098190
	06/25/2019	06/26/2019 12:15	Sima Feizi	06/27/2019 12:31	Lipi Saha	2098175
	06/25/2019	06/26/2019 12:15	Sima Feizi	06/27/2019 12:39	Lipi Saha	2098181
	06/25/2019	06/26/2019 12:15	Sima Feizi	06/27/2019 12:41	Lipi Saha	2098182
	06/25/2019	06/26/2019 12:15	Sima Feizi	06/27/2019 12:43	Lipi Saha	2098183
	06/25/2019	06/26/2019 12:15	Sima Feizi	06/27/2019 12:44	Lipi Saha	2098184
EPA 365.1 Rev. 2.0 dissolved	06/25/2019			06/25/2019 14:57	Jhamieka S. Greenwood	2098176
	06/25/2019			06/25/2019 15:20	Jhamieka S. Greenwood	2098191
	06/25/2019			06/25/2019 15:24	Jhamieka S. Greenwood	2098188
	06/25/2019			06/25/2019 15:29	Jhamieka S. Greenwood	2098185
	06/25/2019			06/25/2019 15:30	Jhamieka S. Greenwood	2098186
	06/25/2019			06/25/2019 15:31	Jhamieka S. Greenwood	2098187
EPA 8321B	06/25/2019	06/25/2019 13:00	Rebecca Ware	06/25/2019 13:19	Rebecca Ware	2098201
	06/25/2019	06/25/2019 13:00	Rebecca Ware	06/25/2019 23:08	Rebecca Ware	2098201

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	06/25/2019	06/25/2019 13:00	Rebecca Ware	06/26/2019 12:28	Rebecca Ware	2098201
	06/25/2019	06/27/2019 09:00	Hoor Shaik	07/05/2019 22:39	Juyoung Kim	2098201
SM 2120 B	06/25/2019			06/25/2019 17:21	Julia Storbeck	2098174
	06/25/2019			06/25/2019 17:28	Julia Storbeck	2098177
	06/25/2019			06/25/2019 17:33	Julia Storbeck	2098178, 2098179
	06/25/2019			06/25/2019 17:34	Julia Storbeck	2098180
	06/25/2019			06/25/2019 17:42	Julia Storbeck	2098189
SM 2320 B-97	06/25/2019			06/27/2019 06:22	Dale L. Simmons	2098178
	06/25/2019			06/27/2019 09:45	Dale L. Simmons	2098174
	06/25/2019			06/27/2019 09:56	Dale L. Simmons	2098177
	06/25/2019			06/27/2019 10:07	Dale L. Simmons	2098179
	06/25/2019			06/27/2019 10:19	Dale L. Simmons	2098180
	06/25/2019			06/27/2019 10:30	Dale L. Simmons	2098189
SM 2540 C-97	06/25/2019			06/26/2019 15:02	Yijie Li	2098174, 2098177, 2098178, 2098179, 2098180, 2098189
SM 2540 D-97	06/25/2019			06/26/2019 15:02	Yijie Li	2098174, 2098177, 2098178, 2098179, 2098180, 2098189
SM 4500 F-C-97	06/25/2019			07/01/2019 21:15	Dale L. Simmons	2098178
	06/25/2019			07/01/2019 22:44	Dale L. Simmons	2098174
	06/25/2019			07/01/2019 22:49	Dale L. Simmons	2098177
	06/25/2019			07/01/2019 22:54	Dale L. Simmons	2098179
	06/25/2019			07/01/2019 22:59	Dale L. Simmons	2098180
	06/25/2019			07/01/2019 23:05	Dale L. Simmons	2098189
SM 5310 B-00	06/25/2019			06/26/2019 11:23	Julia Storbeck	2098175
	06/25/2019			06/26/2019 11:36	Julia Storbeck	2098181
	06/25/2019			06/26/2019 11:49	Julia Storbeck	2098182
	06/25/2019			06/27/2019 01:51	Julia Storbeck	2098184
	06/25/2019			06/27/2019 02:05	Julia Storbeck	2098190
	06/25/2019			06/27/2019 12:29	Julia Storbeck	2098183