

Chemical Analysis Report

TLH-ROC-2018-03-27-02

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

Event Description: **A-b/t/m**
Request ID: **RQ-2018-02-26-64**
Customer: **TLH-ROC**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
2600 Blair Stone Rd
Tallahassee, FL 32399
Attn: Michael Eckles

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Thekkekalathil Chandrasekhar, Chemist Administrator

Date Certified: 12-APR-2018 12:58



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 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: Lexington Creek @ Timberlane Rd

Collection Date/Time: 03/27/2018 09:30

Field ID: G1TLHR0088

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1978208	EPA 180.1 Rev. 2.0	Turbidity	7.3		NTU	P342272	
	EPA 300.0 Rev. 2.1	Chloride	8.4		mg Cl/L	P342508	
	SM 2120 B	Color (true)	32	A	PCU	P342266	
	SM 2320 B-97	Total Alkalinity	25		mg CaCO3/L	P342982	
	SM 2540 C-97	TDS	52		mg/L	P342659	
	SM 2540 D-97	TSS	7	I	mg/L	P343096	
	SM 4500 F-C-97	Fluoride	0.083	I	mg F/L	P342986	
1978213	EPA 350.1 Rev. 2.0	Ammonia-N	0.076		mg N/L	P342767	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.28		mg N/L	P342389	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.11		mg N/L	P342654	
	EPA 365.1 Rev. 2.0	Total-P	0.19		mg P/L	P342501	
	SM 5310 B-00	Organic Carbon	2.2		mg C/L	P342876	
1978218	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.091		mg P/L	P342318	
1978238	EPA 8321B	2,4-D	0.0020	U	ug/L	P342159	
		Sucralose**	0.28		ug/L	P342413	
		Bentazon	0.0010	I	ug/L	P342159	MS
		MCP	0.0020	U	ug/L	P342159	
		Triclopyr**	0.0040	U	ug/L	P342159	
		Imidacloprid	0.041		ug/L	P342159	MS
		Diuron	0.0020	U	ug/L	P342159	
		Pyraclostrobin**	0.0020	U	ug/L	P342159	
		Primidone**	0.0040	U	ug/L	P342159	
		Linuron	0.0040	U	ug/L	P342159	
		Acetaminophen**	0.25		ug/L	P342159	
		Fenuron	0.016	U	ug/L	P342159	
		Imazapyr**	0.0040	U	ug/L	P342159	
		Carbamazepine**	4.0E-04	U	ug/L	P342159	
		Fluridone**	0.0016	I	ug/L	P342159	

Ref. Method and Comment:

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

EPA 8321B: MS accuracy and precision for Imazapyr could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: Lake Overstreet Drain @ N Meridian Rd

Collection Date/Time: 03/27/2018 09:50

Field ID: G1TLHR0069

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1978209	EPA 180.1 Rev. 2.0	Turbidity	2.9		NTU	P342272	
	EPA 300.0 Rev. 2.1	Chloride	18		mg Cl/L	P342508	
	SM 2120 B	Color (true)	30		PCU	P342266	
	SM 2320 B-97	Total Alkalinity	32		mg CaCO3/L	P342982	
	SM 2540 C-97	TDS	92		mg/L	P342659	
	SM 2540 D-97	TSS	2	I	mg/L	P343096	
	SM 4500 F-C-97	Fluoride	0.10		mg F/L	P342986	
1978214	EPA 350.1 Rev. 2.0	Ammonia-N	0.024		mg N/L	P342767	

Field ID: G1TLHR0069

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1978214	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.27		mg N/L	P342389	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.066		mg N/L	P342654	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P342501	
	SM 5310 B-00	Organic Carbon	3.3		mg C/L	P342876	
1978219	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.072		mg P/L	P342318	
1978239	EPA 8321B	2,4-D	0.0020	U	ug/L	P342159	
		Sucralose**	0.010	U	ug/L	P342413	
		Bentazon	8.0E-04	U	ug/L	P342159	MS
		MCP	0.0020	U	ug/L	P342159	
		Triclopyr**	0.0040	U	ug/L	P342159	
		Imidacloprid	0.0078	I	ug/L	P342159	MS
		Diuron	0.0023	I	ug/L	P342159	
		Pyraclostrobin**	0.0020	U	ug/L	P342159	
		Primidone**	0.0040	U	ug/L	P342159	
		Linuron	0.0040	U	ug/L	P342159	
		Acetaminophen**	0.0080	U	ug/L	P342159	
		Fenuron	0.016	U	ug/L	P342159	
		Imazapyr**	0.0063	I	ug/L	P342159	
		Carbamazepine**	4.0E-04	U	ug/L	P342159	
		Fluridone**	0.0047		ug/L	P342159	

Ref. Method and Comment:

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

EPA 8321B: MS accuracy and precision for Imazapyr could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: BIG CREEK @ CR 2224

Collection Date/Time: 03/27/2018 11:20

Field ID: G1TLHR0057

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1978210	EPA 180.1 Rev. 2.0	Turbidity	2.4		NTU	P342272	
	EPA 300.0 Rev. 2.1	Chloride	2.8		mg Cl/L	P342508	
	SM 2120 B	Color (true)	190		PCU	P342266	
	SM 2320 B-97	Total Alkalinity	2.7		mg CaCO3/L	P342982	
	SM 2540 C-97	TDS	48		mg/L	P342659	
	SM 2540 D-97	TSS	2	I	mg/L	P343096	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P342986	
1978215	EPA 350.1 Rev. 2.0	Ammonia-N	0.012		mg N/L	P342769	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.40		mg N/L	P342389	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.26		mg N/L	P342654	
	EPA 365.1 Rev. 2.0	Total-P	0.012		mg P/L	P342501	
	SM 5310 B-00	Organic Carbon	15		mg C/L	P342876	
1978220	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.005	I	mg P/L	P342318	
1978240	EPA 8321B	2,4-D	0.0020	U	ug/L	P342159	
		Sucralose**	0.010	U	ug/L	P342413	
		Bentazon	8.0E-04	U	ug/L	P342159	MS
		MCP	0.0020	U	ug/L	P342159	

Field ID: G1TLHR0057

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1978240	EPA 8321B	Triclopyr**	0.0040	U	ug/L	P342159	
		Imidacloprid	0.0020	U	ug/L	P342159	MS
		Diuron	0.0020	U	ug/L	P342159	
		Pyraclostrobin**	0.0020	U	ug/L	P342159	
		Primidone**	0.0040	U	ug/L	P342159	
		Linuron	0.0040	U	ug/L	P342159	
		Acetaminophen**	0.0080	U	ug/L	P342159	
		Fenuron	0.016	U	ug/L	P342159	
		Imazapyr**	0.020		ug/L	P342159	
		Carbamazepine**	4.0E-04	U	ug/L	P342159	
		Fluridone**	8.0E-04	U	ug/L	P342159	

Ref. Method and Comment:

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

EPA 8321B: MS accuracy and precision for Imazapyr could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: BEAR CREEK @ SR 267

Collection Date/Time: 03/27/2018 12:00

Field ID: G1TLHR0052

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1978211	EPA 180.1 Rev. 2.0	Turbidity	3.2		NTU	P342272	
	EPA 300.0 Rev. 2.1	Chloride	3.7		mg Cl/L	P342508	
	SM 2120 B	Color (true)	63		PCU	P342266	
	SM 2320 B-97	Total Alkalinity	3.7		mg CaCO3/L	P342982	
	SM 2540 C-97	TDS	36		mg/L	P342659	
	SM 2540 D-97	TSS	4	I	mg/L	P343096	
	SM 4500 F-C-97	Fluoride	0.058	I	mg F/L	P342986	
1978216	EPA 350.1 Rev. 2.0	Ammonia-N	0.014		mg N/L	P342769	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.19	I	mg N/L	P342389	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.065		mg N/L	P342654	
	EPA 365.1 Rev. 2.0	Total-P	0.077		mg P/L	P342501	
	SM 5310 B-00	Organic Carbon	5.9		mg C/L	P342876	
1978221	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.050		mg P/L	P342318	
1978241	EPA 8321B	2,4-D	0.0020	U	ug/L	P342346	
		Sucralose**	0.010	U	ug/L	P342413	
		Bentazon	8.0E-04	U	ug/L	P342346	
		MCP	0.0020	U	ug/L	P342346	
		Triclopyr**	0.0040	U	ug/L	P342346	
		Imidacloprid	0.0020	U	ug/L	P342346	MS
		Diuron	0.0020	U	ug/L	P342346	
		Pyraclostrobin**	0.0020	U	ug/L	P342346	
		Primidone**	0.0040	U	ug/L	P342346	
		Linuron	0.0040	U	ug/L	P342346	
		Acetaminophen**	0.0080	U	ug/L	P342346	
		Fenuron	0.016	U	ug/L	P342346	
		Imazapyr**	0.0041	I	ug/L	P342346	
		Carbamazepine**	4.0E-04	U	ug/L	P342346	

Field ID: G1TLHR0052

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1978241	EPA 8321B	Fluridone**	8.0E-04	U	ug/L	P342346	

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: OCKLAWAHA CREEK @ SR 267

Collection Date/Time: 03/27/2018 12:10

Field ID: G1TLHR0053

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1978212	EPA 180.1 Rev. 2.0	Turbidity	1.9		NTU	P342272	
	EPA 300.0 Rev. 2.1	Chloride	2.2		mg Cl/L	P342508	
	SM 2120 B	Color (true)	110		PCU	P342266	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P342982	
	SM 2540 C-97	TDS	23	I	mg/L	P342659	
	SM 2540 D-97	TSS	3	I	mg/L	P343096	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P342986	
1978217	EPA 350.1 Rev. 2.0	Ammonia-N	0.005	I	mg N/L	P342769	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.30		mg N/L	P342389	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.11		mg N/L	P342654	
	EPA 365.1 Rev. 2.0	Total-P	0.008		mg P/L	P342501	
	SM 5310 B-00	Organic Carbon	9.6		mg C/L	P342876	
1978222	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P342318	
1978242	EPA 8321B	2,4-D	0.0020	U	ug/L	P342346	
		Sucralose**	0.010	U	ug/L	P342413	
		Bentazon	8.0E-04	U	ug/L	P342346	
		MCP	0.0020	U	ug/L	P342346	
		Triclopyr**	0.0040	U	ug/L	P342346	
		Imidacloprid	0.0020	U	ug/L	P342346	MS
		Diuron	0.0020	U	ug/L	P342346	
		Pyraclostrobin**	0.0020	U	ug/L	P342346	
		Primidone**	0.0040	U	ug/L	P342346	
		Linuron	0.0040	U	ug/L	P342346	
		Acetaminophen**	0.0080	U	ug/L	P342346	
		Fenuron	0.016	U	ug/L	P342346	
		Imazapyr**	0.0048	I	ug/L	P342346	
		Carbamazepine**	4.0E-04	U	ug/L	P342346	
		Fluridone**	8.0E-04	U	ug/L	P342346	

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: P342272

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Quality Assurance Report

Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P342508

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P342767

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P342769

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P342389

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P342654

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P342501

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P342318

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

Reference Method: EPA 8321B
Batch ID: P342159

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	4.0E-04	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P342159

Component	Result	Code	Units
MCP	0.0020	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: P342346

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	4.0E-04	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
MCP	0.0020	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: P342413

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P342266

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P342982

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

Reference Method: SM 2540 C-97
Batch ID: P342659

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P343096

Component	Result	Code	Units
-----------	--------	------	-------

Quality Assurance Report Method Blank Results

Reference Method: SM 2540 D-97
 Batch ID: P343096

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
 Batch ID: P342986

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
 Batch ID: P342876

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: P342508

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	98.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P342767

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	93.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P342769

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	94.1		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P342389

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	95.5		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P342654

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P342501

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P342501

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P342318

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	98.7		P	90 - 110

Reference Method: EPA 8321B

Batch ID: P342159

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	68.0		P	40 - 150
Acetaminophen	90.8		P	30 - 150
Bentazon	62.2		P	30 - 150
Carbamazepine	68.4		P	40 - 150
Diuron	66.3		P	40 - 150
Fenuron	107		P	40 - 150
Fluridone	56.8		P	40 - 150
Imazapyr	60.3		P	40 - 150
Imidacloprid	91.6		P	40 - 160
Linuron	70.2		P	40 - 150
MCP	61.9		P	40 - 150
Primidone	105		P	40 - 150
Pyraclostrobin	70.4		P	40 - 150
Triclopyr	66.8		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P342346

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	78.9		P	40 - 150
Acetaminophen	112		P	30 - 150
Bentazon	74.4		P	30 - 150
Carbamazepine	75.8		P	40 - 150
Diuron	68.2		P	40 - 150
Fenuron	111		P	40 - 150
Fluridone	60.0		P	40 - 150
Imazapyr	69.0		P	40 - 150
Imidacloprid	93.9		P	40 - 160
Linuron	80.2		P	40 - 150
MCP	74.3		P	40 - 150
Primidone	115		P	40 - 150
Pyraclostrobin	68.3		P	40 - 150
Triclopyr	79.2		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P342413

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	92.6		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-97
 Batch ID: P342982

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	100		P	98 - 107

Reference Method: SM 4500 F-C-97
 Batch ID: P342986

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.5		P	91 - 105

Reference Method: SM 5310 B-00
 Batch ID: P342876

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.5		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P342508

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1978002	Chloride	100	98.2	P/P	90 - 110
1978208	Chloride	97.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P342767

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1978036	Ammonia-N	94.0	95.1	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P342769

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1978215	Ammonia-N	96.8	93.9	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P342389

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1978102	Kjeldahl Nitrogen	95.5	93.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P342654

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1978213	NO2NO3-N	106	104	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P342501

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1978214	Total-P	99.4	99.7	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P342318

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1978011	O-Phosphate-P	102	102	P/P	90 - 110

Reference Method: EPA 8321B

Batch ID: P342159

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1977140	2,4-D	99.2	90.5	P/P	40 - 150
1977140	Acetaminophen	134	125	P/P	30 - 150
1977140	Bentazon	26.4	26.8	F/F	30 - 150
1977140	Carbamazepine	79.9	81.8	P/P	40 - 150
1977140	Diuron	69.5	70.3	P/P	40 - 150
1977140	Fenuron	93.6	87.3	P/P	40 - 150
1977140	Fluridone	54.6	52.2	P/P	40 - 150
1977140	Imidacloprid	214	193	F/F	40 - 160
1977140	Linuron	83.6	74.6	P/P	40 - 150
1977140	MCP	78.1	78.1	P/P	40 - 150
1977140	Primidone	120	119	P/P	40 - 150
1977140	Pyraclostrobin	72.2	68.2	P/P	40 - 150
1977140	Triclopyr	83.0	74.1	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P342346

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1978254	2,4-D	114	130	P/P	40 - 150
1978254	Acetaminophen	126	126	P/P	30 - 150
1978254	Bentazon	48.5	53.2	P/P	30 - 150
1978254	Carbamazepine	101	96.7	P/P	40 - 150
1978254	Diuron	82.4	82.5	P/P	40 - 150
1978254	Fenuron	106	106	P/P	40 - 150
1978254	Fluridone	65.7	62.4	P/P	40 - 150
1978254	Imazapyr	73.6	63.9	P/P	40 - 150
1978254	Imidacloprid	164	162	F/F	40 - 160
1978254	Linuron	87.6	85.6	P/P	40 - 150
1978254	MCP	95.0	103	P/P	40 - 150
1978254	Primidone	118	121	P/P	40 - 150
1978254	Pyraclostrobin	83.1	75.5	P/P	40 - 150
1978254	Triclopyr	97.7	108	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P342413

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1977124	Sucralose	101	103	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P342986

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1978292	Fluoride	95.8	95.2	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P342876

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1978005	Organic Carbon	97.2	95.8	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P342272

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1978099	Turbidity	0.562	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P342508

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1978002	Chloride	1.79	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P342767

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1978036	Ammonia-N	1.05	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P342769

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1978215	Ammonia-N	2.39	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P342389

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1978102	Kjeldahl Nitrogen	1.29	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P342654

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
--------------------------	-----------	-----------	-------------------	-----------	----------------

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P342654

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1978213	NO2NO3-N	1.27	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P342501

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1978214	Total-P	0.236	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P342318

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1978011	O-Phosphate-P	0.0980	Spike	P	0 - 20

Reference Method: EPA 8321B

Batch ID: P342159

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1977140	2,4-D	8.34	Spike	P	0 - 30
1977140	Acetaminophen	6.81	Spike	P	0 - 30
1977140	Bentazon	1.47	Spike	P	0 - 30
1977140	Carbamazepine	2.34	Spike	P	0 - 30
1977140	Diuron	1.22	Spike	P	0 - 30
1977140	Fenuron	6.94	Spike	P	0 - 30
1977140	Fluridone	4.53	Spike	P	0 - 30
1977140	Imidacloprid	9.88	Spike	P	0 - 30
1977140	Linuron	11.4	Spike	P	0 - 30
1977140	MCP	0.0384	Spike	P	0 - 30
1977140	Primidone	1.17	Spike	P	0 - 30
1977140	Pyraclostrobin	5.83	Spike	P	0 - 30
1977140	Triclopyr	11.4	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P342346

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1978254	2,4-D	13.0	Spike	P	0 - 30
1978254	Acetaminophen	0.0791	Spike	P	0 - 30
1978254	Bentazon	9.20	Spike	P	0 - 30
1978254	Carbamazepine	4.68	Spike	P	0 - 30
1978254	Diuron	0.0243	Spike	P	0 - 30
1978254	Fenuron	0.189	Spike	P	0 - 30
1978254	Fluridone	5.21	Spike	P	0 - 30
1978254	Imazapyr	10.7	Spike	P	0 - 30
1978254	Imidacloprid	0.983	Spike	P	0 - 30
1978254	Linuron	2.25	Spike	P	0 - 30
1978254	MCP	8.17	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
 Batch ID: P342346

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1978254	Primidone	1.92	Spike	P	0 - 30
1978254	Pyraclostrobin	9.50	Spike	P	0 - 30
1978254	Triclopyr	10.2	Spike	P	0 - 30

Reference Method: EPA 8321B
 Batch ID: P342413

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1977124	Sucralose	2.25	Spike	P	0 - 30

Reference Method: SM 2120 B
 Batch ID: P342266

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1978208	Color (true)	3.93	Sample	P	0 - 20

Reference Method: SM 2320 B-97
 Batch ID: P342982

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1978292	Total Alkalinity	0.365	Sample	P	0 - 1.6

Reference Method: SM 2540 C-97
 Batch ID: P342659

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1978292	TDS	4.10	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
 Batch ID: P342986

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1978292	Fluoride	0.479	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
 Batch ID: P342876

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1978005	Organic Carbon	1.41	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: 1978238

Field Sample ID: G1TLHR0088

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	56.2	P	30 - 160
EPA 8321B	Acetaminophen-d4	109	P	30 - 160
EPA 8321B	Carbamazepine-d10	101	P	30 - 160
EPA 8321B	Diuron-d6	79.0	P	30 - 160
EPA 8321B	Primidone-d5	112	P	30 - 160
EPA 8321B	Sucralose-d6	108	P	40 - 160

Lab Sample ID: 1978239

Field Sample ID: G1TLHR0069

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	75.6	P	30 - 160
EPA 8321B	Acetaminophen-d4	118	P	30 - 160
EPA 8321B	Carbamazepine-d10	111	P	30 - 160
EPA 8321B	Diuron-d6	83.4	P	30 - 160
EPA 8321B	Primidone-d5	117	P	30 - 160
EPA 8321B	Sucralose-d6	100	P	40 - 160

Lab Sample ID: 1978240

Field Sample ID: G1TLHR0057

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	124	P	30 - 160
EPA 8321B	Acetaminophen-d4	130	P	30 - 160
EPA 8321B	Carbamazepine-d10	134	P	30 - 160
EPA 8321B	Diuron-d6	99.3	P	30 - 160
EPA 8321B	Primidone-d5	126	P	30 - 160
EPA 8321B	Sucralose-d6	95.2	P	40 - 160

Lab Sample ID: 1978241

Field Sample ID: G1TLHR0052

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	97.9	P	30 - 160
EPA 8321B	Acetaminophen-d4	129	P	30 - 160
EPA 8321B	Carbamazepine-d10	114	P	30 - 160
EPA 8321B	Diuron-d6	88.4	P	30 - 160
EPA 8321B	Primidone-d5	128	P	30 - 160
EPA 8321B	Sucralose-d6	96.2	P	40 - 160

Lab Sample ID: 1978242

Field Sample ID: G1TLHR0053

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	127	P	30 - 160
EPA 8321B	Acetaminophen-d4	123	P	30 - 160
EPA 8321B	Carbamazepine-d10	124	P	30 - 160
EPA 8321B	Diuron-d6	90.2	P	30 - 160
EPA 8321B	Primidone-d5	117	P	30 - 160
EPA 8321B	Sucralose-d6	95.5	P	40 - 160

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B

Run ID: A82875

Included Lab Sample IDs: 1978208, 1978209, 1978210, 1978211, 1978212

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.3	101	P/P	85 - 115
Color (true)	99.6	99.3	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A82876

Included Lab Sample IDs: 1978208, 1978209, 1978210, 1978211, 1978212

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A82892

Included Lab Sample IDs: 1978208, 1978209, 1978210, 1978211, 1978212

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	98.9	P/P	90 - 110
Chloride	99.4	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A82895

Included Lab Sample IDs: 1978218, 1978219, 1978220, 1978221, 1978222

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.2	101	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A82969

Included Lab Sample IDs: 1978238, 1978239, 1978240, 1978241, 1978242

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	77.4	86.3	P/P	50 - 150
2,4-D	86.3	86.3	P/P	50 - 150
Acetaminophen	108	104	P/P	60 - 150
Acetaminophen	110	109	P/P	60 - 150
Bentazon	88.0	89.0	P/P	50 - 150
Bentazon	89.0	82.0	P/P	50 - 150
Carbamazepine	109	103	P/P	60 - 150
Carbamazepine	110	110	P/P	60 - 150
Diuron	117	120	P/P	60 - 150
Diuron	125	126	P/P	60 - 150
Fenuron	111	113	P/P	60 - 150
Fenuron	112	110	P/P	60 - 150
Fluridone	104	105	P/P	60 - 160
Fluridone	112	109	P/P	60 - 160
Imazapyr	102	87.5	P/P	50 - 150
Imazapyr	89.5	98.0	P/P	50 - 150
Imidacloprid	115	115	P/P	60 - 150
Imidacloprid	118	107	P/P	60 - 150
Linuron	117	121	P/P	60 - 150
Linuron	119	120	P/P	60 - 150
MCPP	87.6	92.4	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A82969

Included Lab Sample IDs: 1978238, 1978239, 1978240, 1978241, 1978242

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
MCP	92.4	89.6	P/P	50 - 150
Primidone	104	107	P/P	60 - 150
Primidone	110	103	P/P	60 - 150
Pyraclorobin	116	119	P/P	60 - 150
Pyraclorobin	117	119	P/P	60 - 150
Triclopyr	90.2	90.5	P/P	50 - 150
Triclopyr	90.5	93.1	P/P	50 - 150

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A82977

Included Lab Sample IDs: 1978213, 1978214, 1978216

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A82979

Included Lab Sample IDs: 1978213, 1978214, 1978215, 1978216, 1978217

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	104	98.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A83000

Included Lab Sample IDs: 1978215, 1978217

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.2	98.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A83012

Included Lab Sample IDs: 1978213, 1978214, 1978215, 1978216, 1978217

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

Reference Method: EPA 8321B

Run ID: A83032

Included Lab Sample IDs: 1978238, 1978239, 1978240, 1978241, 1978242

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	113	99.4	P/P	60 - 150
Sucralose	97.6	113	P/P	60 - 150

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A83041

Included Lab Sample IDs: 1978213, 1978214, 1978215, 1978216, 1978217

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	96.7	97.5	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A83041

Included Lab Sample IDs: 1978213, 1978214, 1978215, 1978216, 1978217

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.5	98.1	P/P	90 - 110
Ammonia-N	98.5	98.2	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A83069

Included Lab Sample IDs: 1978213, 1978214, 1978215, 1978216, 1978217

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.4	96.8	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A83098

Included Lab Sample IDs: 1978208, 1978209, 1978210, 1978211, 1978212

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	97.4	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A83098

Included Lab Sample IDs: 1978208, 1978209, 1978210, 1978211, 1978212

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	98.1	98.6	P/P	90 - 110

* Pass/Fail determinations are made for each bracketing calibration verification check.
Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.
Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity						0.562	
EPA 300.0 Rev. 2.1	Chloride	98.7		100	98.2	97.2		1.79
EPA 350.1 Rev. 2.0	Ammonia-N	93.8		94.0	95.1			1.05
	Ammonia-N	94.1		96.8	93.9			2.39
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	95.5		95.5	93.4			1.29
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	102		106	104			1.27
EPA 365.1 Rev. 2.0	Total-P	98.6		99.4	99.7			0.236
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.7		102	102			0.0980
EPA 8321B	2,4-D	68.0		99.2	90.5			8.34
	2,4-D	78.9		114	130			13.0
	Acetaminophen	90.8		134	125			6.81
	Acetaminophen	112		126	126			0.0791
	Bentazon	62.2		26.4	26.8			1.47
	Bentazon	74.4		48.5	53.2			9.20
	Carbamazepine	68.4		79.9	81.8			2.34
	Carbamazepine	75.8		101	96.7			4.68
	Diuron	66.3		69.5	70.3			1.22

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	MS
			LCS	SMP		
EPA 8321B	Diuron	68.2	82.4	82.5		0.0243
	Fenuron	107	93.6	87.3		6.94
	Fenuron	111	106	106		0.189
	Fluridone	56.8	54.6	52.2		4.53
	Fluridone	60.0	65.7	62.4		5.21
	Imazapyr	60.3				
	Imazapyr	69.0	73.6	63.9		10.7
	Imidacloprid	91.6	214	193		9.88
	Imidacloprid	93.9	164	162		0.983
	Linuron	70.2	83.6	74.6		11.4
	Linuron	80.2	87.6	85.6		2.25
	MCPP	61.9	78.1	78.1		0.0384
	MCPP	74.3	95.0	103		8.17
	Primidone	105	120	119		1.17
	Primidone	115	118	121		1.92
	Pyraclostrobin	70.4	72.2	68.2		5.83
	Pyraclostrobin	68.3	83.1	75.5		9.50
	Sucralose	92.6	101	103		2.25
	Triclopyr	66.8	83.0	74.1		11.4
	Triclopyr	79.2	97.7	108		10.2
SM 2120 B	Color (true)				3.93	
SM 2320 B-97	Total Alkalinity	100			0.365	
SM 2540 C-97	TDS				4.10	
SM 4500 F-C-97	Fluoride	97.5	95.8	95.2		0.479
SM 5310 B-00	Organic Carbon	97.5	97.2	95.8		1.41

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1978208, 1978209, 1978210, 1978211, 1978212
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1978208, 1978209, 1978210, 1978211, 1978212
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1978213, 1978214, 1978215, 1978216, 1978217
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1978213, 1978214, 1978215, 1978216, 1978217
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1978213, 1978214, 1978215, 1978216, 1978217
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1978213, 1978214, 1978215, 1978216, 1978217
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1978218, 1978219, 1978220, 1978221, 1978222
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	1978238, 1978239, 1978240, 1978241, 1978242
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	1978238, 1978239, 1978240, 1978241, 1978242
SM 2120 B / E31780	True Color measured at 450 nm	1978208, 1978209, 1978210, 1978211, 1978212
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1978208, 1978209, 1978210, 1978211, 1978212
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1978208, 1978209, 1978210, 1978211, 1978212
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1978208, 1978209, 1978210, 1978211, 1978212

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1978208, 1978209, 1978210, 1978211, 1978212
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1978213, 1978214, 1978215, 1978216, 1978217

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	03/27/2018			03/27/2018 15:15	DeAsia Armster	1978208, 1978209, 1978210, 1978211, 1978212
EPA 300.0 Rev. 2.1	03/27/2018			03/30/2018 00:49	Lipi Saha	1978208
	03/27/2018			03/30/2018 03:36	Lipi Saha	1978209
	03/27/2018			03/30/2018 03:48	Lipi Saha	1978210
	03/27/2018			03/30/2018 04:00	Lipi Saha	1978211
	03/27/2018			03/30/2018 04:12	Lipi Saha	1978212
EPA 350.1 Rev. 2.0	03/27/2018			04/04/2018 12:46	Ping Hua	1978213
	03/27/2018			04/04/2018 12:48	Ping Hua	1978214
	03/27/2018			04/04/2018 13:25	Ping Hua	1978215
	03/27/2018			04/04/2018 13:37	Ping Hua	1978216
	03/27/2018			04/04/2018 13:39	Ping Hua	1978217
EPA 351.2 Rev. 2.0	03/27/2018	03/29/2018 11:18	Adrian Shelby	04/02/2018 10:13	Joseph Suarez	1978213
	03/27/2018	03/29/2018 11:18	Adrian Shelby	04/02/2018 10:15	Joseph Suarez	1978214
	03/27/2018	03/29/2018 11:18	Adrian Shelby	04/02/2018 10:17	Joseph Suarez	1978215
	03/27/2018	03/29/2018 11:18	Adrian Shelby	04/02/2018 10:18	Joseph Suarez	1978216
	03/27/2018	03/29/2018 11:18	Adrian Shelby	04/02/2018 10:20	Joseph Suarez	1978217
EPA 353.2 Rev. 2.0	03/27/2018			04/03/2018 12:44	Lauren Bottorf	1978213
	03/27/2018			04/03/2018 12:51	Lauren Bottorf	1978214
	03/27/2018			04/03/2018 12:53	Lauren Bottorf	1978215
	03/27/2018			04/03/2018 12:54	Lauren Bottorf	1978216
	03/27/2018			04/03/2018 12:55	Lauren Bottorf	1978217
EPA 365.1 Rev. 2.0	03/27/2018	03/30/2018 13:51	Sima Feizi	04/02/2018 10:16	Beverly Y. Sanders	1978214
	03/27/2018	03/30/2018 13:51	Sima Feizi	04/02/2018 10:25	Beverly Y. Sanders	1978213
	03/27/2018	03/30/2018 13:51	Sima Feizi	04/02/2018 10:27	Beverly Y. Sanders	1978216
	03/27/2018	03/30/2018 13:51	Sima Feizi	04/02/2018 13:58	Beverly Y. Sanders	1978215
	03/27/2018	03/30/2018 13:51	Sima Feizi	04/02/2018 13:59	Beverly Y. Sanders	1978217
EPA 365.1 Rev. 2.0 dissolved	03/27/2018			03/27/2018 16:06	Megan Treadwell	1978219
	03/27/2018			03/27/2018 16:07	Megan Treadwell	1978220
	03/27/2018			03/27/2018 16:08	Megan Treadwell	1978221, 1978222
	03/27/2018			03/27/2018 16:09	Megan Treadwell	1978218
EPA 8321B	03/27/2018	03/28/2018 10:00	Hoor Shaik	03/29/2018 07:56	Julie Michelle Frank	1978238
	03/27/2018	03/28/2018 10:00	Hoor Shaik	03/29/2018 08:30	Julie Michelle Frank	1978239
	03/27/2018	03/28/2018 10:00	Hoor Shaik	03/29/2018 09:05	Julie Michelle Frank	1978240
	03/27/2018	03/28/2018 10:00	Hoor Shaik	03/30/2018 00:39	Julie Michelle Frank	1978238
	03/27/2018	03/28/2018 10:00	Hoor Shaik	03/30/2018 01:14	Julie Michelle Frank	1978239
	03/27/2018	03/28/2018 10:00	Hoor Shaik	03/30/2018 01:48	Julie Michelle Frank	1978240
	03/27/2018	03/29/2018 08:30	Hoor Shaik	03/30/2018 05:16	Julie Michelle Frank	1978241
	03/27/2018	03/29/2018 08:30	Hoor Shaik	03/30/2018 06:25	Julie Michelle Frank	1978242
	03/27/2018	03/29/2018 08:30	Hoor Shaik	03/30/2018 17:23	Julie Michelle Frank	1978241

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	03/27/2018	03/29/2018 08:30	Hoor Shaik	03/30/2018 17:57	Julie Michelle Frank	1978242
	03/27/2018	03/30/2018 08:30	Julie Michelle Frank	03/30/2018 15:32	Mohammad Ghaffari	1978238
	03/27/2018	03/30/2018 08:30	Julie Michelle Frank	03/30/2018 15:48	Mohammad Ghaffari	1978239
	03/27/2018	03/30/2018 08:30	Julie Michelle Frank	03/30/2018 16:03	Mohammad Ghaffari	1978240
	03/27/2018	03/30/2018 08:30	Julie Michelle Frank	03/30/2018 16:35	Mohammad Ghaffari	1978241
	03/27/2018	03/30/2018 08:30	Julie Michelle Frank	03/30/2018 16:51	Mohammad Ghaffari	1978242
SM 2120 B	03/27/2018			03/27/2018 15:53	Tanya Welborn	1978208
	03/27/2018			03/27/2018 15:54	Tanya Welborn	1978209
	03/27/2018			03/27/2018 15:56	Tanya Welborn	1978211
	03/27/2018			03/27/2018 15:57	Tanya Welborn	1978212
	03/27/2018			03/27/2018 16:04	Tanya Welborn	1978210
SM 2320 B-97	03/27/2018			04/05/2018 19:55	Dale L. Simmons	1978208
	03/27/2018			04/05/2018 20:05	Dale L. Simmons	1978209
	03/27/2018			04/05/2018 20:16	Dale L. Simmons	1978210
	03/27/2018			04/05/2018 20:26	Dale L. Simmons	1978211
	03/27/2018			04/05/2018 20:37	Dale L. Simmons	1978212
SM 2540 C-97	03/27/2018			03/30/2018 16:30	Yijie Li	1978208, 1978209, 1978210, 1978211, 1978212
SM 2540 D-97	03/27/2018			03/30/2018 16:30	Yijie Li	1978208, 1978209, 1978210, 1978211, 1978212
SM 4500 F-C-97	03/27/2018			04/05/2018 19:55	Dale L. Simmons	1978208
	03/27/2018			04/05/2018 20:05	Dale L. Simmons	1978209
	03/27/2018			04/05/2018 20:16	Dale L. Simmons	1978210
	03/27/2018			04/05/2018 20:26	Dale L. Simmons	1978211
	03/27/2018			04/05/2018 20:37	Dale L. Simmons	1978212
SM 5310 B-00	03/27/2018			04/05/2018 06:28	Julia Storbeck	1978213
	03/27/2018			04/05/2018 06:44	Julia Storbeck	1978214
	03/27/2018			04/05/2018 06:59	Julia Storbeck	1978215
	03/27/2018			04/05/2018 07:14	Julia Storbeck	1978216
	03/27/2018			04/05/2018 07:28	Julia Storbeck	1978217