

Chemical Analysis Report

NE-DIST-2018-03-30-02

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

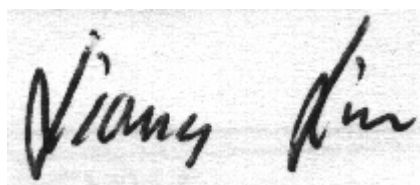
Event Description: **LSJR North Salt**
Request ID: **RQ-2018-03-26-10**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
8800 Baymeadows Way West
Jacksonville, FL 32256-7577
Attn: Jeremy Parrish

For additional information please contact
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Certified by: Liang Lin, Environmental Administrator

Date Certified: 24-APR-2018 11:04

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 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: Ribault River at US-1

Collection Date/Time: 03/29/2018 10:30

Field ID: 20030133

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1979415	EPA 180.1 Rev. 2.0	Turbidity	7.9		NTU	P342515	
	SM 2320 B-97	Total Alkalinity	89		mg CaCO3/L	P343027	RPD
	SM 2540 D-97	TSS	7	I	mg/L	P342963	
	SM 4500 F-C-97	Fluoride	0.12		mg F/L	P343815	
1979419	EPA 350.1 Rev. 2.0	Ammonia-N	0.029		mg N/L	P343072	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.75		mg N/L	P342669	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.12		mg N/L	P342849	
	EPA 365.1 Rev. 2.0	Total-P	0.13		mg P/L	P342651	
	SM 5310 B-00	Organic Carbon	11		mg C/L	P343083	
1979423	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.048		mg P/L	P342540	

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: Ribault River at Harbor View Boat Ramp

Collection Date/Time: 03/29/2018 09:45

Field ID: G2NE1161

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1979416	EPA 180.1 Rev. 2.0	Turbidity	4.9		NTU	P342515	
	SM 2320 B-97	Total Alkalinity	103	A	mg CaCO3/L	P342984	
	SM 2540 D-97	TSS	5	I	mg/L	P342963	
	SM 4500 F-C-97	Fluoride	0.35		mg F/L	P342988	
1979420	EPA 350.1 Rev. 2.0	Ammonia-N	0.009		mg N/L	P343070	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.66		mg N/L	P342701	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.078		mg N/L	P342751	
	EPA 365.1 Rev. 2.0	Total-P	0.089		mg P/L	P342649	
	SM 5310 B-00	Organic Carbon	10		mg C/L	P343083	
1979424	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.036		mg P/L	P342542	

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: Moncreif CR LEM Turner Rd Br, Norwood Ave.

Collection Date/Time: 03/29/2018 09:15

Field ID: 20030114

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1979456	EPA 8321B	2,4-D	0.0033	I	ug/L	P342539	
		Sucralose**	0.62		ug/L	P342469	
		Bentazon	0.0044		ug/L	P342539	
		MCP	0.0020	U	ug/L	P342539	
		Triclopyr**	0.0040	U	ug/L	P342539	
		Imidacloprid	0.036		ug/L	P342539	MS
		Diuron	0.015		ug/L	P342539	
		Pyraclostrobin**	0.0020	U	ug/L	P342539	
		Primidone**	0.0040	U	ug/L	P342539	
		Linuron	0.071		ug/L	P342539	
		Acetaminophen**	0.085		ug/L	P342539	

Field ID: 20030114

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1979456	EPA 8321B	Fenuron	0.016	U	ug/L	P342539	
		Imazapyr**	0.041		ug/L	P342539	
		Carbamazepine**	0.0014	I	ug/L	P342539	
		Fluridone**	0.019		ug/L	P342539	
		Hydrocodone**	8.0E-04	U	ug/L	P342539	

Ref. Method and Comment:

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

Sample Location: Moncreif CR LEM Turner Rd Br, Norwood Ave. Collection Date/Time: 03/29/2018 09:20

Field ID: 20030114DUP

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1979457	EPA 8321B	2,4-D	0.0034	I	ug/L	P342539	
		Sucralose**	0.56		ug/L	P342469	
		Bentazon	0.0045		ug/L	P342539	
		MCP	0.0020	U	ug/L	P342539	
		Triclopyr**	0.0040	U	ug/L	P342539	
		Imidacloprid	0.041		ug/L	P342539	MS
		Diuron	0.017		ug/L	P342539	
		Pyraclostrobin**	0.0020	U	ug/L	P342539	
		Primidone**	0.0040	U	ug/L	P342539	
		Linuron	0.078		ug/L	P342539	
		Acetaminophen**	0.11		ug/L	P342539	
		Fenuron	0.016	U	ug/L	P342539	
		Imazapyr**	0.046		ug/L	P342539	
		Carbamazepine**	0.0015	I	ug/L	P342539	
		Fluridone**	0.025		ug/L	P342539	
		Hydrocodone**	8.0E-04	U	ug/L	P342539	

Ref. Method and Comment:

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

Sample Location: Dunn CR at Faye Road

Collection Date/Time: 03/29/2018 11:00

Field ID: 20030140

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1979417	EPA 180.1 Rev. 2.0	Turbidity	4.7		NTU	P342515	
	SM 2320 B-97	Total Alkalinity	99	J	mg CaCO3/L	P343187	LCS
	SM 2540 D-97	TSS	9	I	mg/L	P342965	
	SM 4500 F-C-97	Fluoride	0.75		mg F/L	P343182	
1979421	EPA 350.1 Rev. 2.0	Ammonia-N	0.012		mg N/L	P343070	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.51		mg N/L	P342701	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.094		mg N/L	P342751	
	EPA 365.1 Rev. 2.0	Total-P	0.079		mg P/L	P342649	
	SM 5310 B-00	Organic Carbon	8.4		mg C/L	P343001	
1979425	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.047		mg P/L	P342542	

Field ID: 20030140

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
Ref. Method and Comment: SM 2320 B-97: Refer to the narrative for an explanation of QC Codes.							

Sample Location: Dunn CR at Faye Road

Collection Date/Time: 03/29/2018 11:00

Field ID: 20030140

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1979458	EPA 8321B	2,4-D	0.0025	I	ug/L	P342539	
		Sucralose**	0.60		ug/L	P342469	
		Bentazon	0.0039		ug/L	P342539	
		MCP	0.0020	U	ug/L	P342539	
		Triclopyr**	0.0040	U	ug/L	P342539	
		Imidacloprid	0.035		ug/L	P342539	MS
		Diuron	0.018		ug/L	P342539	
		Pyraclostrobin**	0.0020	U	ug/L	P342539	
		Primidone**	0.0040	U	ug/L	P342539	
		Linuron	0.098		ug/L	P342539	
		Acetaminophen**	0.0080	U	ug/L	P342539	
		Fenuron	0.016	U	ug/L	P342539	
		Imazapyr**	0.028		ug/L	P342539	
		Carbamazepine**	0.0015	I	ug/L	P342539	
		Fluridone**	0.0046		ug/L	P342539	
		Hydrocodone**	8.0E-04	U	ug/L	P342539	

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

Sample Location: Ribault R Moncrief Rd Br

Collection Date/Time: 03/29/2018 10:10

Field ID: 20030129

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1979418	EPA 180.1 Rev. 2.0	Turbidity	6.3	A	NTU	P342516	
	SM 2320 B-97	Total Alkalinity	103		mg CaCO3/L	P343027	RPD
	SM 2540 D-97	TSS	6	I	mg/L	P342963	
	SM 4500 F-C-97	Fluoride	0.20		mg F/L	P343648	
1979422	EPA 350.1 Rev. 2.0	Ammonia-N	0.005	I	mg N/L	P343072	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.73		mg N/L	P342669	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.096		mg N/L	P342849	
	EPA 365.1 Rev. 2.0	Total-P	0.12		mg P/L	P342652	
	SM 5310 B-00	Organic Carbon	10		mg C/L	P343083	
1979426	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.046		mg P/L	P342540	
	dissolved						

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P342515

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P342516

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P343070

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P343072

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P342669

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P342701

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P342751

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P342849

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P342649

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P342651

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P342652

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P342540

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P342542

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

Reference Method: EPA 8321B
Batch ID: P342469

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P342539

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	0.017	I	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	8.0E-04	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
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2320 B-97
Batch ID: P342984

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

Quality Assurance Report

Method Blank Results

Reference Method: SM 2320 B-97
Batch ID: P343027

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

Reference Method: SM 2320 B-97
Batch ID: P343187

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

Reference Method: SM 2540 D-97
Batch ID: P342963

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P342965

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P342988

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P343182

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P343648

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P343815

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P343001

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: P343083

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P343070

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	97.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P343072

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	96.0		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P342669

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	99.7		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P342701

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P342751

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P342849

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	107		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P342649

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P342651

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P342651

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: P342652

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P342540

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P342542

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	98.4		P	90 - 110

Reference Method: EPA 8321B
Batch ID: P342469

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	83.8		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P342539

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	64.8		P	40 - 150
Acetaminophen	99.8		P	30 - 150
Bentazon	68.3		P	30 - 150
Carbamazepine	83.6		P	40 - 150
Diuron	66.7		P	40 - 150
Fenuron	114		P	40 - 150
Fluridone	62.2		P	40 - 150
Hydrocodone	118		P	40 - 150
Imazapyr	73.4		P	40 - 150
Imidacloprid	106		P	40 - 160
Linuron	79.8		P	40 - 150
MCPP	61.0		P	40 - 150
Primidone	110		P	40 - 150
Pyraclostrobin	66.6		P	40 - 150
Triclopyr	56.8		P	40 - 150

Reference Method: SM 2320 B-97
Batch ID: P342984

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-97
Batch ID: P343027

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.6		P	98 - 107

Reference Method: SM 2320 B-97
Batch ID: P343187

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.0		F	98 - 107

Reference Method: SM 4500 F-C-97
Batch ID: P342988

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	94.2		P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P343182

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	94.0		P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P343648

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.1		P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P343815

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	94.8		P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P343001

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.0		P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P343083

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 350.1 Rev. 2.0
Batch ID: P343070

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P343070

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1978868	Ammonia-N	96.7	99.4	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P343072

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1979419	Ammonia-N	94.4	94.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P342669

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1979573	Kjeldahl Nitrogen	98.7	98.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P342701

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1978935	Kjeldahl Nitrogen	99.5	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P342751

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1979078	NO2NO3-N	107	108	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P342849

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1979380	NO2NO3-N	108	109	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P342649

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1979440	Total-P	95.6	96.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P342651

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1979381	Total-P	103	98.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P342652

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1979518	Total-P	102	102	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P342540

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1979376	O-Phosphate-P	96.7	97.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P342542

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1979583	O-Phosphate-P	96.6	97.6	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P342469

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1979267	Sucralose	93.4	91.1	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P342539

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1979892	Acetaminophen	127	125	P/P	30 - 150
1979892	Bentazon	37.7	33.9	P/P	30 - 150
1979892	Carbamazepine	94.2	92.9	P/P	40 - 150
1979892	Diuron	72.4	79.4	P/P	40 - 150
1979892	Fenuron	101	106	P/P	40 - 150
1979892	Fluridone	65.1	62.8	P/P	40 - 150
1979892	Hydrocodone	139	140	P/P	40 - 150
1979892	Imidacloprid	185	197	F/F	40 - 160
1979892	Linuron	82.6	91.5	P/P	40 - 150
1979892	MCP	55.2	56.7	P/P	40 - 150
1979892	Primidone	132	132	P/P	40 - 150
1979892	Pyraclostrobin	75.7	73.6	P/P	40 - 150
1979892	Triclopyr	59.3	54.8	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P342988

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1979416	Fluoride	95.2	94.5	P/P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P343182

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1979442	Fluoride	93.4	94.6	P/P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P343648

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1979516	Fluoride	97.2	97.8	P/P	91 - 105

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P343815

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1984367	Fluoride	95.0	95.6	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P343001

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1979078	Organic Carbon	92.1	92.0	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P343083

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1979380	Organic Carbon	95.0	96.4	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P342515

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1979358	Turbidity	0.927	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P342516

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1979418	Turbidity	7.97	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P343070

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1978868	Ammonia-N	2.40	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P343072

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1979419	Ammonia-N	0.0393	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P342669

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1979573	Kjeldahl Nitrogen	0.399	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P342701

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1978935	Kjeldahl Nitrogen	3.34	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P342751

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1979078	NO2NO3-N	0.844	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P342849

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1979380	NO2NO3-N	1.39	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P342649

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1979440	Total-P	0.540	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P342651

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1979381	Total-P	3.49	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P342652

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1979518	Total-P	0.440	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P342540

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1979376	O-Phosphate-P	0.824	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P342542

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1979583	O-Phosphate-P	0.766	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P342469

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1979267	Sucralose	2.50	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P342539

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1979892	2,4-D	3.02	Spike	P	0 - 30
1979892	Acetaminophen	1.33	Spike	P	0 - 30
1979892	Bentazon	9.31	Spike	P	0 - 30
1979892	Carbamazepine	1.36	Spike	P	0 - 30
1979892	Diuron	9.25	Spike	P	0 - 30
1979892	Fenuron	5.30	Spike	P	0 - 30
1979892	Fluridone	3.64	Spike	P	0 - 30
1979892	Hydrocodone	0.429	Spike	P	0 - 30
1979892	Imazapyr	7.98	Spike	P	0 - 30
1979892	Imidacloprid	5.04	Spike	P	0 - 30
1979892	Linuron	10.2	Spike	P	0 - 30
1979892	MCP	2.68	Spike	P	0 - 30
1979892	Primidone	0.439	Spike	P	0 - 30
1979892	Pyraclostrobin	2.75	Spike	P	0 - 30
1979892	Triclopyr	7.82	Spike	P	0 - 30

Reference Method: SM 2320 B-97
Batch ID: P342984

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1979416	Total Alkalinity	0.835	Sample	P	0 - 1.6

Reference Method: SM 2320 B-97
Batch ID: P343027

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1979516	Total Alkalinity	4.27	Sample	F	0 - 1.6

Reference Method: SM 2320 B-97
Batch ID: P343187

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1979442	Total Alkalinity	1.22	Sample	P	0 - 1.6

Reference Method: SM 2540 D-97
Batch ID: P342965

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1979744	TSS	5.71	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 4500 F-C-97
 Batch ID: P342988

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1979416	Fluoride	0.477	Spike	P	0 - 3.5

Reference Method: SM 4500 F-C-97
 Batch ID: P343182

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1979442	Fluoride	0.940	Spike	P	0 - 3.5

Reference Method: SM 4500 F-C-97
 Batch ID: P343648

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1979516	Fluoride	0.477	Spike	P	0 - 3.5

Reference Method: SM 4500 F-C-97
 Batch ID: P343815

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1984367	Fluoride	0.480	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
 Batch ID: P343001

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1979078	Organic Carbon	0.0906	Spike	P	0 - 20

Reference Method: SM 5310 B-00
 Batch ID: P343083

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1979380	Organic Carbon	1.05	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: 1979456
 Field Sample ID: 20030114

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	68.1	P	30 - 160
EPA 8321B	Acetaminophen-d4	132	P	30 - 160
EPA 8321B	Carbamazepine-d10	101	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 1979456
Field Sample ID: 20030114

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Diuron-d6	79.3	P	30 - 160
EPA 8321B	Primidone-d5	135	P	30 - 160
EPA 8321B	Sucralose-d6	86.0	P	40 - 160

Lab Sample ID: 1979457
Field Sample ID: 20030114DUP

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	65.0	P	30 - 160
EPA 8321B	Acetaminophen-d4	140	P	30 - 160
EPA 8321B	Carbamazepine-d10	111	P	30 - 160
EPA 8321B	Diuron-d6	86.2	P	30 - 160
EPA 8321B	Primidone-d5	132	P	30 - 160
EPA 8321B	Sucralose-d6	73.6	P	40 - 160

Lab Sample ID: 1979458
Field Sample ID: 20030140

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	63.2	P	30 - 160
EPA 8321B	Acetaminophen-d4	145	P	30 - 160
EPA 8321B	Carbamazepine-d10	119	P	30 - 160
EPA 8321B	Diuron-d6	95.2	P	30 - 160
EPA 8321B	Primidone-d5	126	P	30 - 160
EPA 8321B	Sucralose-d6	90.2	P	40 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A82962
Included Lab Sample IDs: 1979415, 1979416, 1979417, 1979418

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	99.5	P/P	95 - 105
Turbidity	100	100	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A82970
Included Lab Sample IDs: 1979423, 1979424, 1979425, 1979426

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A83020
Included Lab Sample IDs: 1979419, 1979422

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A83030
Included Lab Sample IDs: 1979420, 1979421

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

Reference Method: EPA 8321B
Run ID: A83031
Included Lab Sample IDs: 1979456, 1979457, 1979458

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	84.3	94.4	P/P	60 - 150
Sucralose	94.4	93.9	P/P	60 - 150

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A83035
Included Lab Sample IDs: 1979420, 1979421

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	99.0	99.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A83043
Included Lab Sample IDs: 1979419, 1979422

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A83048
Included Lab Sample IDs: 1979420, 1979421

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	104	99.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A83062
Included Lab Sample IDs: 1979419, 1979422

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	104	104	P/P	90 - 110

Reference Method: SM 2320 B-97
Run ID: A83098
Included Lab Sample IDs: 1979416

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	100	97.6	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A83098
Included Lab Sample IDs: 1979416

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.1	98.1	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-00
Run ID: A83104
Included Lab Sample IDs: 1979421

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	93.6	93.0	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A83110
Included Lab Sample IDs: 1979456, 1979457, 1979458

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	94.8	99.1	P/P	50 - 150
Acetaminophen	111	114	P/P	60 - 150
Bentazon	106	104	P/P	50 - 150
Carbamazepine	109	108	P/P	60 - 150
Diuron	114	121	P/P	60 - 150
Fenuron	106	108	P/P	60 - 150
Fluridone	121	120	P/P	60 - 160
Hydrocodone	122	120	P/P	60 - 150
Imazapyr	79.5	90.5	P/P	50 - 150
Imidacloprid	102	107	P/P	60 - 150
Linuron	111	118	P/P	60 - 150
MCPP	102	100	P/P	50 - 150
Primidone	117	118	P/P	60 - 150
Pyraclostrobin	112	117	P/P	60 - 150
Triclopyr	94.9	95.1	P/P	50 - 150

Reference Method: SM 2320 B-97
Run ID: A83116
Included Lab Sample IDs: 1979415, 1979418

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	100	98.1	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A83131
Included Lab Sample IDs: 1979419, 1979420, 1979421, 1979422

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.4	98.6	P/P	90 - 110
Ammonia-N	99.1	99.7	P/P	90 - 110

Reference Method: SM 5310 B-00
Run ID: A83136
Included Lab Sample IDs: 1979419, 1979420, 1979422

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.7	95.1	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A83159
Included Lab Sample IDs: 1979417

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	96.3	99.5	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-97
Run ID: A83161
Included Lab Sample IDs: 1979417

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.4	96.5	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A83315
Included Lab Sample IDs: 1979418

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.5	101	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A83371
Included Lab Sample IDs: 1979415

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	98.5	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					0.927	
	Turbidity					7.97	
EPA 350.1 Rev. 2.0	Ammonia-N	97.7	96.7	99.4			2.40
	Ammonia-N	96.0	94.4	94.4			0.0393
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.7	98.7	98.0			0.399
	Kjeldahl Nitrogen	107	99.5	103			3.34
EPA 353.2 Rev. 2.0	NO2NO3-N	103	107	108			0.844
	NO2NO3-N	107	108	109			1.39
EPA 365.1 Rev. 2.0	Total-P	100	95.6	96.2			0.540
	Total-P	102	103	98.9			3.49
	Total-P	98.8	102	102			0.440
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.6	96.7	97.5			0.824
	O-Phosphate-P	98.4	96.6	97.6			0.766
EPA 8321B	2,4-D	64.8					3.02
	Acetaminophen	99.8	127	125			1.33
	Bentazon	68.3	37.7	33.9			9.31
	Carbamazepine	83.6	94.2	92.9			1.36
	Diuron	66.7	72.4	79.4			9.25
	Fenuron	114	101	106			5.30
	Fluridone	62.2	65.1	62.8			3.64
	Hydrocodone	118	139	140			0.429
	Imazapyr	73.4					7.98
	Imidacloprid	106	185	197			5.04
	Linuron	79.8	82.6	91.5			10.2
	MCP	61.0	55.2	56.7			2.68

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Primidone	110	132	132		0.439
	Pyraclostrobin	66.6	75.7	73.6		2.75
	Sucralose	83.8	93.4	91.1		2.50
	Triclopyr	56.8	59.3	54.8		7.82
SM 2320 B-97	Total Alkalinity	100			0.835	
	Total Alkalinity	98.6			4.27	
	Total Alkalinity	98.0			1.22	
SM 2540 D-97	TSS				5.71	
SM 4500 F-C-97	Fluoride	94.2	95.2	94.5		0.477
	Fluoride	94.0	93.4	94.6		0.940
	Fluoride	98.1	97.2	97.8		0.477
	Fluoride	94.8	95.0	95.6		0.480
SM 5310 B-00	Organic Carbon	96.0	92.1	92.0		0.0906
	Organic Carbon	95.9	95.0	96.4		1.05

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1979415, 1979416, 1979417, 1979418
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1979419, 1979420, 1979421, 1979422
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1979419, 1979420, 1979421, 1979422
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1979419, 1979420, 1979421, 1979422
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1979419, 1979420, 1979421, 1979422
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1979423, 1979424, 1979425, 1979426
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	1979456, 1979457, 1979458
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	1979456, 1979457, 1979458
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1979415, 1979416, 1979417, 1979418
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1979415, 1979416, 1979417, 1979418
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1979415, 1979416, 1979417, 1979418
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1979419, 1979420, 1979421, 1979422

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	03/30/2018			03/30/2018 15:46	Tanya Welborn	1979415, 1979416, 1979417, 1979418
EPA 350.1 Rev. 2.0	03/30/2018			04/09/2018 13:14	Ping Hua	1979420
	03/30/2018			04/09/2018 13:15	Ping Hua	1979421
	03/30/2018			04/09/2018 14:06	Ping Hua	1979419
	03/30/2018			04/09/2018 14:08	Ping Hua	1979422
EPA 351.2 Rev. 2.0	03/30/2018	04/03/2018 09:50	Adrian Shelby	04/04/2018 14:59	Joseph Suarez	1979419
	03/30/2018	04/03/2018 09:50	Adrian Shelby	04/04/2018 15:01	Joseph Suarez	1979422
	03/30/2018	04/04/2018 10:15	Adrian Shelby	04/05/2018 10:24	Joseph Suarez	1979420
	03/30/2018	04/04/2018 10:15	Adrian Shelby	04/05/2018 10:25	Joseph Suarez	1979421
EPA 353.2 Rev. 2.0	03/30/2018			04/04/2018 12:36	Lauren Bottorf	1979420
	03/30/2018			04/04/2018 12:37	Lauren Bottorf	1979421
	03/30/2018			04/05/2018 13:53	Lauren Bottorf	1979419
	03/30/2018			04/05/2018 13:55	Lauren Bottorf	1979422
EPA 365.1 Rev. 2.0	03/30/2018	04/03/2018 13:07	Sima Feizi	04/04/2018 09:33	Beverly Y. Sanders	1979419
	03/30/2018	04/03/2018 13:07	Sima Feizi	04/04/2018 09:40	Beverly Y. Sanders	1979422
	03/30/2018	04/03/2018 13:07	Sima Feizi	04/04/2018 11:28	Beverly Y. Sanders	1979420
	03/30/2018	04/03/2018 13:07	Sima Feizi	04/04/2018 11:29	Beverly Y. Sanders	1979421
EPA 365.1 Rev. 2.0 dissolved	03/30/2018			03/30/2018 16:34	Megan Treadwell	1979423
	03/30/2018			03/30/2018 16:35	Megan Treadwell	1979424
	03/30/2018			03/30/2018 16:36	Megan Treadwell	1979425, 1979426
EPA 8321B	03/30/2018	04/03/2018 09:00	Julie Michelle Frank	04/03/2018 16:44	Mohammad Ghaffari	1979456
	03/30/2018	04/03/2018 09:00	Julie Michelle Frank	04/03/2018 17:16	Mohammad Ghaffari	1979457
	03/30/2018	04/03/2018 09:00	Julie Michelle Frank	04/03/2018 17:31	Mohammad Ghaffari	1979458
	03/30/2018	04/04/2018 12:00	Hoor Shaik	04/05/2018 01:30	Julie Michelle Frank	1979456
	03/30/2018	04/04/2018 12:00	Hoor Shaik	04/05/2018 02:04	Julie Michelle Frank	1979457
	03/30/2018	04/04/2018 12:00	Hoor Shaik	04/05/2018 02:39	Julie Michelle Frank	1979458
	03/30/2018	04/04/2018 12:00	Hoor Shaik	04/05/2018 17:05	Julie Michelle Frank	1979456
	03/30/2018	04/04/2018 12:00	Hoor Shaik	04/05/2018 17:39	Julie Michelle Frank	1979457
	03/30/2018	04/04/2018 12:00	Hoor Shaik	04/05/2018 18:14	Julie Michelle Frank	1979458
SM 2320 B-97	03/30/2018			04/06/2018 06:12	Dale L. Simmons	1979416
	03/30/2018			04/07/2018 06:47	Dale L. Simmons	1979418
	03/30/2018			04/07/2018 09:02	Dale L. Simmons	1979415
	03/30/2018			04/11/2018 11:17	Dale L. Simmons	1979417
SM 2540 D-97	03/30/2018			04/04/2018 15:34	Yijie Li	1979415, 1979416, 1979417, 1979418
SM 4500 F-C-97	03/30/2018			04/06/2018 04:24	Dale L. Simmons	1979416
	03/30/2018			04/11/2018 04:34	Dale L. Simmons	1979417
	03/30/2018			04/17/2018 19:01	Dale L. Simmons	1979418
	03/30/2018			04/19/2018 21:32	Dale L. Simmons	1979415
SM 5310 B-00	03/30/2018			04/07/2018 01:53	Julia Storbeck	1979419
	03/30/2018			04/07/2018 02:05	Julia Storbeck	1979420

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 5310 B-00	03/30/2018			04/07/2018 02:17	Julia Storbeck	1979422
	03/30/2018			04/07/2018 12:44	Megan Treadwell	1979421