

Chemical Analysis Report

SO-DIST-2019-04-02-01

Florida Department of Environmental Protection
Central Laboratory
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DOH Accreditation E31780

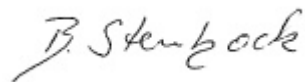
Event Description: **2019 SMP : Okee Canals**
Request ID: **RQ-2019-04-01-53**
Customer: **SO-DIST**
Project ID: **SMP**

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Date Certified: 18-APR-2019 18:10



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 group are included in this report: Nutrients.

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: Harney Pond Canal@SR 70

Collection Date/Time: 04/01/2019 12:30

Field ID: G4SD0173

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2073879	EPA 180.1 Rev. 2.0	Turbidity	7.2		NTU	P361438	
	EPA 300.0 Rev. 2.1	Chloride	27		mg Cl/L	P361732	
		Sulfate	33		mg SO4/L	P361734	
	SM 2120 B	Color (true)	74		PCU	P361463	
	SM 2320 B-97	Total Alkalinity	26		mg CaCO3/L	P361717	
	SM 2540 C-97	TDS	150		mg/L	P361823	
	SM 2540 D-97	TSS	13	I	mg/L	P361662	
	SM 4500 F-C-97	Fluoride	0.087	I	mg F/L	P361719	
2073882	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P361697	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P361489	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P361479	
	EPA 365.1 Rev. 2.0	Total-P	0.083		mg P/L	P361432	
	SM 5310 B-00	Organic Carbon	16		mg C/L	P361475	
2073885	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P361434	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample. The PQL was elevated due to sample matrix interference.

Sample Location: PRAIRIE CANAL @ SR 70

Collection Date/Time: 04/01/2019 13:00

Field ID: G4SD0174

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2073880	EPA 180.1 Rev. 2.0	Turbidity	7.8	A	NTU	P361438	
	EPA 300.0 Rev. 2.1	Chloride	29		mg Cl/L	P361732	
		Sulfate	36		mg SO4/L	P361734	
	SM 2120 B	Color (true)	76		PCU	P361463	
	SM 2320 B-97	Total Alkalinity	29		mg CaCO3/L	P361717	
	SM 2540 C-97	TDS	155		mg/L	P361823	
	SM 2540 D-97	TSS	14	I	mg/L	P361662	
	SM 4500 F-C-97	Fluoride	0.089	I	mg F/L	P361719	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P361697	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P361489	
2073883	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P361479	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P361432	
	SM 5310 B-00	Organic Carbon	16		mg C/L	P361475	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.004	U	mg P/L	P361434	
	dissolved						

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample. The PQL was elevated due to sample matrix interference.

Sample Location: C-41 a @ SR 70

Collection Date/Time: 04/01/2019 13:30

Field ID: G4SD0175

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2073881	EPA 180.1 Rev. 2.0	Turbidity	4.7		NTU	P361438	
	EPA 300.0 Rev. 2.1	Chloride	46		mg Cl/L	P361732	
		Sulfate	42		mg SO4/L	P361734	
	SM 2120 B	Color (true)	52		PCU	P361463	
	SM 2320 B-97	Total Alkalinity	30		mg CaCO3/L	P361717	
	SM 2540 C-97	TDS	209		mg/L	P361823	
	SM 2540 D-97	TSS	9	I	mg/L	P361662	
	SM 4500 F-C-97	Fluoride	0.098	I	mg F/L	P361719	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.005		mg N/L	P361697	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P361489	
2073884	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P361479	
	EPA 365.1 Rev. 2.0	Total-P	0.037		mg P/L	P361432	
	SM 5310 B-00	Organic Carbon	16		mg C/L	P361475	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.004	U	mg P/L	P361434	
	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

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P361438

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P361732

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P361734

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P361697

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P361489

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P361479

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P361432

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P361434

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

Reference Method: SM 2120 B
Batch ID: P361463

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report Method Blank Results

Reference Method: SM 2320 B-97
Batch ID: P361717

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

Reference Method: SM 2540 C-97
Batch ID: P361823

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P361662

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P361719

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P361475

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: P361732

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P361734

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P361697

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P361489

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	99.8		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P361479

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: P361432

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: P361434

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	98.1		P	90 - 110

Reference Method: SM 2120 B
Batch ID: P361463

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.4		P	85 - 115

Reference Method: SM 2320 B-97
Batch ID: P361717

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	98 - 107

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P361719

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.3		P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P361475

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	106		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P361732

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2073871	Chloride	99.1		P	90 - 110
2073957	Chloride	97.6		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P361734

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2073871	Sulfate	100		P	90 - 110
2073957	Sulfate	99.1		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P361697

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2073917	Ammonia-N	100	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P361489

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2073917	Kjeldahl Nitrogen	92.7	98.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P361479

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2073860	NO2NO3-N	101	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P361432

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2073916	Total-P	102	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P361434

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2073961	O-Phosphate-P	95.1	96.8	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P361719

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2073957	Fluoride	99.8	98.6	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P361475

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2073619	Organic Carbon	102	100	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P361438

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2073880	Turbidity	1.28	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P361732

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2073871	Chloride	2.16	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P361734

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2073871	Sulfate	2.30	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P361697

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2073917	Ammonia-N	0.720	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P361489

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2073917	Kjeldahl Nitrogen	3.57	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P361479

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2073860	NO2NO3-N	0.615	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P361432

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2073916	Total-P	2.83	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P361434

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2073961	O-Phosphate-P	1.77	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 2120 B
Batch ID: P361463

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2073913	Color (true)	0.169	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P361717

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2073957	Total Alkalinity	0.566	Sample	P	0 - 1.6

Reference Method: SM 2540 C-97
Batch ID: P361823

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2073616	TDS	3.47	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P361719

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2073957	Fluoride	1.00	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
Batch ID: P361475

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2073619	Organic Carbon	1.18	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 Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A90388
Included Lab Sample IDs: 2073885, 2073886, 2073887

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.1	97.9	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A90389
Included Lab Sample IDs: 2073879, 2073880, 2073881

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

Reference Method: SM 2120 B
Run ID: A90399
Included Lab Sample IDs: 2073879, 2073880, 2073881

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.3	97.7	P/P	90 - 115

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A90403
Included Lab Sample IDs: 2073882, 2073883

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

Reference Method: SM 5310 B-00
Run ID: A90406
Included Lab Sample IDs: 2073882, 2073883, 2073884

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	103	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A90407
Included Lab Sample IDs: 2073882, 2073883, 2073884

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A90408
Included Lab Sample IDs: 2073884

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A90499
Included Lab Sample IDs: 2073882, 2073883, 2073884

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	95.5	97.0	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A90502

Included Lab Sample IDs: 2073882, 2073883, 2073884

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	101	104	P/P	90 - 110
Ammonia-N	104	102	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A90507

Included Lab Sample IDs: 2073879, 2073880, 2073881

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	99.8	P/P	90 - 110
Total Alkalinity	99.8	107	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A90507

Included Lab Sample IDs: 2073879, 2073880, 2073881

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A90511

Included Lab Sample IDs: 2073879, 2073880, 2073881

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

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

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 180.1 Rev. 2.0	Turbidity				1.28	
EPA 300.0 Rev. 2.1	Chloride	100	99.1	97.6	2.16	
	Sulfate	100	100	99.1	2.30	
EPA 350.1 Rev. 2.0	Ammonia-N	103	100	101		0.720
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.8	92.7	98.6		3.57
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	102	101	100		0.615
EPA 365.1 Rev. 2.0	Total-P	98.8	102	106		2.83
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.1	95.1	96.8		1.77
SM 2120 B	Color (true)	99.4			0.169	
SM 2320 B-97	Total Alkalinity	101			0.566	
SM 2540 C-97	TDS				3.47	
SM 4500 F-C-97	Fluoride	99.3	99.8	98.6		1.00
SM 5310 B-00	Organic Carbon	106	102	100		1.18

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2073879, 2073880, 2073881
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2073879, 2073880, 2073881
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2073879, 2073880, 2073881
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2073882, 2073883, 2073884
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2073882, 2073883, 2073884
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2073882, 2073883, 2073884
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2073882, 2073883, 2073884
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2073885, 2073886, 2073887
SM 2120 B / E31780	True Color measured at 450 nm	2073879, 2073880, 2073881
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2073879, 2073880, 2073881
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2073879, 2073880, 2073881
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2073879, 2073880, 2073881
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2073879, 2073880, 2073881
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2073882, 2073883, 2073884

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	04/02/2019			04/02/2019 17:05	Adrian Shelby	2073879, 2073880, 2073881
EPA 300.0 Rev. 2.1	04/02/2019			04/06/2019 02:30	Lipi Saha	2073879
	04/02/2019			04/06/2019 02:42	Lipi Saha	2073880
	04/02/2019			04/06/2019 03:19	Lipi Saha	2073881
EPA 350.1 Rev. 2.0	04/02/2019			04/04/2019 12:05	Ping Hua	2073882
	04/02/2019			04/04/2019 12:15	Ping Hua	2073883
	04/02/2019			04/04/2019 12:17	Ping Hua	2073884
EPA 351.2 Rev. 2.0	04/02/2019	04/03/2019 13:00	Adrian Shelby	04/05/2019 12:56	Joseph Suarez	2073882
	04/02/2019	04/03/2019 13:00	Adrian Shelby	04/05/2019 12:57	Joseph Suarez	2073883
	04/02/2019	04/03/2019 13:00	Adrian Shelby	04/05/2019 12:59	Joseph Suarez	2073884
EPA 353.2 Rev. 2.0	04/02/2019			04/03/2019 09:41	Beverly Y. Sanders	2073882
	04/02/2019			04/03/2019 09:42	Beverly Y. Sanders	2073883
	04/02/2019			04/03/2019 09:43	Beverly Y. Sanders	2073884
EPA 365.1 Rev. 2.0	04/02/2019	04/02/2019 14:25	Sima Feizi	04/02/2019 19:49	Rosalyn Ballman	2073882
	04/02/2019	04/02/2019 14:25	Sima Feizi	04/02/2019 19:50	Rosalyn Ballman	2073883
	04/02/2019	04/02/2019 14:25	Sima Feizi	04/03/2019 13:10	Rosalyn Ballman	2073884
EPA 365.1 Rev. 2.0 dissolved	04/02/2019			04/02/2019 16:57	Jhamieka S. Greenwood	2073885, 2073886
	04/02/2019			04/02/2019 16:58	Jhamieka S. Greenwood	2073887
SM 2120 B	04/02/2019			04/02/2019 15:52	Mariam Hanna	2073879
	04/02/2019			04/02/2019 15:53	Mariam Hanna	2073880
	04/02/2019			04/02/2019 15:54	Mariam Hanna	2073881
SM 2320 B-97	04/02/2019			04/06/2019 07:58	Dale L. Simmons	2073879
	04/02/2019			04/06/2019 08:10	Dale L. Simmons	2073880
	04/02/2019			04/06/2019 09:02	Dale L. Simmons	2073881
SM 2540 C-97	04/02/2019			04/03/2019 15:14	Yijie Li	2073879, 2073880, 2073881
SM 2540 D-97	04/02/2019			04/03/2019 15:14	Yijie Li	2073879, 2073880, 2073881
SM 4500 F-C-97	04/02/2019			04/06/2019 07:58	Dale L. Simmons	2073879
	04/02/2019			04/06/2019 08:10	Dale L. Simmons	2073880
	04/02/2019			04/06/2019 09:02	Dale L. Simmons	2073881
SM 5310 B-00	04/02/2019			04/02/2019 22:15	Julia Storbeck	2073882
	04/02/2019			04/02/2019 22:27	Julia Storbeck	2073883
	04/02/2019			04/02/2019 22:39	Julia Storbeck	2073884