

Chemical Analysis Report

CEN-DIST-2016-02-09-01

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

Event Description: **Rosalie Canal**
Request ID: **RQ-2016-02-08-66**
Customer: **CEN-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
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3319 Maguire Blvd., Suite 232
Orlando, FL 32803-3767
Attn: Natalie Ayala

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Certified by: Colin Wright, Environmental Administrator

Date Certified: 25-FEB-2016 10:49

A handwritten signature in black ink, appearing to read "Colin Wright", is written on a light-colored rectangular 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 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 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: ROSALIE CANAL

Collection Date/Time: 02/08/2016 12:15

Field ID: G4CE0087

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1769700	EPA 180.1 Rev. 2.0	Turbidity	3.0		NTU	P298351	
	EPA 300.0 Rev. 2.1	Chloride	13		mg Cl/L	P298487	
		Sulfate	8.4		mg SO4/L	P298490	
	SM 2120 B	Color (true)	120		PCU	P298345	
	SM 2320 B-97	Total Alkalinity	12		mg CaCO3/L	P298434	
	SM 2540 C-97	TDS	80		mg/L	P298664	
	SM 2540 D-97	TSS	3	I	mg/L	P298593	
	SM 4500 F-C-97	Fluoride	0.067	I	mg F/L	P298425	
1769703	EPA 350.1 Rev. 2.0	Ammonia-N	0.009		mg N/L	P298704	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.66		mg N/L	P298579	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.029		mg N/L	P298524	
	EPA 365.1 Rev. 2.0	Total-P	0.071		mg P/L	P298568	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P298464	
1769706	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.045		mg P/L	P298329	

Ref. Method and Comment:

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

EPA 350.1 Rev. 2.0: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

Sample Location: ROSALIE CANAL

Collection Date/Time: 02/08/2016 11:40

Field ID: G4CE0088

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1769701	EPA 180.1 Rev. 2.0	Turbidity	3.6		NTU	P298351	
	EPA 300.0 Rev. 2.1	Chloride	13		mg Cl/L	P298487	
		Sulfate	8.2		mg SO4/L	P298490	
	SM 2120 B	Color (true)	120		PCU	P298345	
	SM 2320 B-97	Total Alkalinity	12		mg CaCO3/L	P298434	
	SM 2540 C-97	TDS	81		mg/L	P298664	
	SM 2540 D-97	TSS	6	I	mg/L	P298593	
	SM 4500 F-C-97	Fluoride	0.066	I	mg F/L	P298425	
1769704	EPA 350.1 Rev. 2.0	Ammonia-N	0.011		mg N/L	P298704	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.75		mg N/L	P298579	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.028		mg N/L	P298524	
	EPA 365.1 Rev. 2.0	Total-P	0.071		mg P/L	P298568	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P298464	
1769707	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.042		mg P/L	P298329	

Ref. Method and Comment:

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

EPA 350.1 Rev. 2.0: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

Sample Location: ROSALIE CANAL

Collection Date/Time: 02/08/2016 11:25

Field ID: G4CE0089

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1769702	EPA 180.1 Rev. 2.0	Turbidity	2.4		NTU	P298351	

Field ID: G4CE0089

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1769702	EPA 300.0 Rev. 2.1	Chloride	13		mg Cl/L	P298487	
		Sulfate	8.3		mg SO4/L	P298490	
	SM 2120 B	Color (true)	120		PCU	P298345	
	SM 2320 B-97	Total Alkalinity	12		mg CaCO3/L	P298434	
	SM 2540 C-97	TDS	79		mg/L	P298664	
	SM 2540 D-97	TSS	2	I	mg/L	P298593	
	SM 4500 F-C-97	Fluoride	0.067	I	mg F/L	P298425	
1769705	EPA 350.1 Rev. 2.0	Ammonia-N	0.010		mg N/L	P298704	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.57		mg N/L	P298579	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.028		mg N/L	P298524	
	EPA 365.1 Rev. 2.0	Total-P	0.067		mg P/L	P298568	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P298464	
1769708	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.043		mg P/L	P298329	

Ref. Method and Comment:

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

EPA 350.1 Rev. 2.0: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P298351

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P298487

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P298490

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P298704

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

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P298579

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P298524

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P298568

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P298329

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

Reference Method: SM 2120 B
Batch ID: P298345

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P298434

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

Reference Method: SM 2540 C-97
Batch ID: P298664

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P298593

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P298425

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P298464

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: P298487

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P298490

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P298704

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P298579

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P298524

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P298568

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P298329

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

Reference Method: SM 2320 B-97
Batch ID: P298434

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.2		P	95 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P298425

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.9		P	94 - 108

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-00
 Batch ID: P298464

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.5		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P298487

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1769677	Chloride	102	103	P/P	90 - 110
1769721	Chloride	99.5		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P298490

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1769677	Sulfate	99.9	99.7	P/P	90 - 110
1769721	Sulfate	97.0		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P298579

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1769670	Kjeldahl Nitrogen	92.3	99.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P298524

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1769681	NO2NO3-N	96.5	94.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P298568

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1769680	Total-P	97.8	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P298329

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1769706	O-Phosphate-P	102	102	P/P	90 - 110

Reference Method: SM 4500 F-C-97
 Batch ID: P298425

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1769677	Fluoride	96.6	97.2	P/P	94 - 107

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 5310 B-00
Batch ID: P298464

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1769670	Organic Carbon	98.4	100	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P298351

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1769669	Turbidity	2.04	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P298487

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1769677	Chloride	0.545	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P298490

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1769677	Sulfate	0.169	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P298704

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1769723	Ammonia-N	0.193	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P298579

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1769670	Kjeldahl Nitrogen	4.73	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P298524

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1769681	NO2NO3-N	1.53	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P298568

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1769680	Total-P	4.35	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P298329

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1769706	O-Phosphate-P	0.204	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P298345

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1769676	Color (true)	2.17	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P298434

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1769677	Total Alkalinity	3.92	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P298664

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1769678	TDS	1.50	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P298425

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1769677	Fluoride	0.490	Spike	P	0 - 3.7

Reference Method: SM 5310 B-00
Batch ID: P298464

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1769670	Organic Carbon	1.25	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

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A67519

Included Lab Sample IDs: 1769700, 1769701, 1769702

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.7	99.2	P/P	90 - 110
Sulfate	95.3	97.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A67530

Included Lab Sample IDs: 1769706, 1769707, 1769708

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.0	99.4	P/P	90 - 110
O-Phosphate-P	99.4	97.5	P/P	90 - 110

Reference Method: SM 2120 B

Run ID: A67534

Included Lab Sample IDs: 1769700, 1769701, 1769702

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.3	99.0	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A67535

Included Lab Sample IDs: 1769700, 1769701, 1769702

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

Reference Method: SM 4500 F-C-97

Run ID: A67560

Included Lab Sample IDs: 1769700, 1769701, 1769702

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

Reference Method: SM 2320 B-97

Run ID: A67563

Included Lab Sample IDs: 1769700, 1769701, 1769702

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	99.7	P/P	90 - 110
Total Alkalinity	99.0	101	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A67574

Included Lab Sample IDs: 1769703, 1769704, 1769705

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.4	99.2	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A67589

Included Lab Sample IDs: 1769703, 1769704, 1769705

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	98.5	99.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A67626

Included Lab Sample IDs: 1769703, 1769704, 1769705

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A67627

Included Lab Sample IDs: 1769703, 1769704, 1769705

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A67634

Included Lab Sample IDs: 1769703, 1769704, 1769705

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	101	101	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						2.04	
EPA 300.0 Rev. 2.1	Chloride	101	102	103	99.5			0.545
	Sulfate	98.4	99.9	99.7	97.0			0.169
EPA 350.1 Rev. 2.0	Ammonia-N	98.1						0.193
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	102	92.3	99.1				4.73
EPA 353.2 Rev. 2.0	NO2NO3-N	99.0	96.5	94.0				1.53
EPA 365.1 Rev. 2.0	Total-P	101	97.8	102				4.35
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101	102	102				0.204
SM 2120 B	Color (true)						2.17	
SM 2320 B-97	Total Alkalinity	99.2					3.92	
SM 2540 C-97	TDS						1.50	
SM 4500 F-C-97	Fluoride	97.9	96.6	97.2				0.490
SM 5310 B-00	Organic Carbon	99.5	98.4	100				1.25

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
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Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1769700, 1769701, 1769702
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1769700, 1769701, 1769702
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1769700, 1769701, 1769702
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1769703, 1769704, 1769705
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1769703, 1769704, 1769705
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1769703, 1769704, 1769705
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1769703, 1769704, 1769705
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1769706, 1769707, 1769708
SM 2120 B / E31780	True Color measured at 450 nm	1769700, 1769701, 1769702
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1769700, 1769701, 1769702
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1769700, 1769701, 1769702
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1769700, 1769701, 1769702
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1769700, 1769701, 1769702
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1769703, 1769704, 1769705

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	02/09/2016			02/09/2016 14:17	Sima Feizi	1769700, 1769701, 1769702
EPA 300.0 Rev. 2.1	02/09/2016			02/11/2016	Ping Hua	1769700, 1769701, 1769702
EPA 350.1 Rev. 2.0	02/09/2016			02/16/2016	Diana M. Turner	1769703, 1769704, 1769705
EPA 351.2 Rev. 2.0	02/09/2016	02/15/2016	Christopher Armour	02/16/2016	Bryan A. Werth	1769703, 1769704, 1769705
EPA 353.2 Rev. 2.0	02/09/2016			02/12/2016	Diana M. Turner	1769703, 1769704, 1769705
EPA 365.1 Rev. 2.0	02/09/2016	02/15/2016	Christopher Armour	02/16/2016	Lipi Saha	1769703, 1769704, 1769705
EPA 365.1 Rev. 2.0 dissolved	02/09/2016			02/09/2016 14:17	Bryan A. Werth	1769706
	02/09/2016			02/09/2016 14:33	Bryan A. Werth	1769707, 1769708
SM 2120 B	02/09/2016			02/09/2016 14:35	Blanca Fach	1769700, 1769701
	02/09/2016			02/09/2016 14:36	Blanca Fach	1769702
SM 2320 B-97	02/09/2016			02/10/2016	Dale L. Simmons	1769700
	02/09/2016			02/11/2016	Dale L. Simmons	1769701, 1769702
SM 2540 C-97	02/09/2016			02/10/2016	Yijie Li	1769700, 1769701, 1769702
SM 2540 D-97	02/09/2016			02/10/2016	Yijie Li	1769700, 1769701, 1769702
SM 4500 F-C-97	02/09/2016			02/10/2016	Dale L. Simmons	1769700, 1769701, 1769702
SM 5310 B-00	02/09/2016			02/10/2016	Sofia Elnemr	1769703, 1769704, 1769705