

Chemical Analysis Report

SO-DIST-2016-01-21-02

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

Event Description: **SCI: SMP Somewhere**

Request ID: **RQ-2016-01-11-39**

Customer: **SO-DIST**

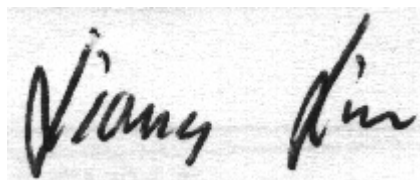
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FLDEP South District Office
2295 Victoria Ave. Suite 364
Fort Myers, FL 33901
Attn: Ben Paswater

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

Date Certified: 09-FEB-2016 10:47

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 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: Winkler Canal @ Princeton St

Collection Date/Time: 01/20/2016 10:05

Field ID: SD012016-1

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1764482	EPA 180.1 Rev. 2.0	Turbidity	0.90		NTU	P297389	
	EPA 300.0 Rev. 2.1	Chloride	69		mg Cl/L	P297815	
		Sulfate	36		mg SO4/L	P297775	
	SM 2120 B	Color (true)	20		PCU	P297399	
	SM 2320 B-97	Total Alkalinity	214		mg CaCO3/L	P297687	
	SM 2540 C-97	TDS	400	A	mg/L	P298060	
	SM 2540 D-97	TSS	2	U	mg/L	P297894	
	SM 4500 F-C-97	Fluoride	0.28		mg F/L	P297674	
1764484	EPA 350.1 Rev. 2.0	Ammonia-N	0.050		mg N/L	P297795	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.42		mg N/L	P297582	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.12		mg N/L	P297726	
	EPA 365.1 Rev. 2.0	Total-P	0.034		mg P/L	P297701	
	SM 5310 B-00	Organic Carbon	4.4		mg C/L	P297730	
1764486	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.019		mg P/L	P297392	

Ref. Method and Comment:

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

Sample Location: Field Blank

Collection Date/Time: 01/20/2016 10:11

Field ID: SD012016-2

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1764483	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P297389	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P297816	
		Sulfate	0.20	U	mg SO4/L	P297775	
	SM 2120 B	Color (true)	2.5	U	PCU	P297399	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P297687	
	SM 2540 C-97	TDS	15	U	mg/L	P298060	
	SM 2540 D-97	TSS	2	U	mg/L	P297894	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P297674	
1764485	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P297795	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P297582	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P297726	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P297701	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P297730	
1764487	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P297392	

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: The result was confirmed on 01/28/2016.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P297389

Component	Result	Code	Units
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Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P297389

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P297775

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P297815

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P297816

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P297795

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P297582

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P297726

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P297701

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P297392

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

Quality Assurance Report Method Blank Results

Reference Method: SM 2120 B
Batch ID: P297399

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P297687

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

Reference Method: SM 2540 C-97
Batch ID: P298060

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P297894

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P297674

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P297730

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: P297775

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	109		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P297815

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P297816

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P297816

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P297795

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P297582

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: P297726

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P297701

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P297392

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

Reference Method: SM 2320 B-97
Batch ID: P297687

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	100		P	95 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P297674

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.9		P	94 - 108

Reference Method: SM 5310 B-00
Batch ID: P297730

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	92.8		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P297775

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1764364	Sulfate	104		P	90 - 110
1764425	Sulfate	105		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P297815

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1765664	Chloride	99.8		P	90 - 110
1765665	Chloride	99.1		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P297816

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1764521	Chloride	106		P	90 - 110
1764666	Chloride	103		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P297795

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1764471	Ammonia-N	100	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P297582

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1764484	Kjeldahl Nitrogen	95.3	95.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P297726

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1764484	NO2NO3-N	104	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P297701

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1764472	Total-P	101	97.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P297392

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1764478	O-Phosphate-P	98.5	100	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P297674

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1764958	Fluoride	97.5	98.1	P/P	94 - 107

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 5310 B-00
 Batch ID: P297730

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1764470	Organic Carbon	92.5	92.6	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P297389

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1764464	Turbidity	3.18	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P297775

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1764364	Sulfate	0.255	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P297815

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1765664	Chloride	0.0691	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P297816

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1764521	Chloride	0.504	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P297795

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1764471	Ammonia-N	0.486	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P297582

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1764484	Kjeldahl Nitrogen	0.250	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P297726

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1764484	NO2NO3-N	0.606	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P297701

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1764472	Total-P	3.54	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P297392

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1764478	O-Phosphate-P	1.61	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P297399

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1764458	Color (true)	0.589	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P297687

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1764958	Total Alkalinity	0.675	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P298060

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1764482	TDS	0.500	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P297674

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1764958	Fluoride	0.476	Spike	P	0 - 3.7

Reference Method: SM 5310 B-00
Batch ID: P297730

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1764470	Organic Carbon	0.0875	Spike	P	0 - 20

Quality Assurance Report Precision

* 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: A67200

Included Lab Sample IDs: 1764486, 1764487

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.6	97.0	P/P	90 - 110
O-Phosphate-P	98.9	98.1	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A67201

Included Lab Sample IDs: 1764482, 1764483

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

Reference Method: SM 2120 B

Run ID: A67203

Included Lab Sample IDs: 1764482, 1764483

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A67286

Included Lab Sample IDs: 1764482, 1764483

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	102	102	P/P	90 - 110
Chloride	102	102	P/P	90 - 110
Sulfate	98.1	96.5	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A67312

Included Lab Sample IDs: 1764482, 1764483

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

Reference Method: SM 2320 B-97

Run ID: A67314

Included Lab Sample IDs: 1764482, 1764483

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	97.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A67325
Included Lab Sample IDs: 1764484, 1764485

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	106	107	P/P	90 - 110
Kjeldahl Nitrogen	107	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A67329
Included Lab Sample IDs: 1764484, 1764485

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

Reference Method: SM 5310 B-00
Run ID: A67330
Included Lab Sample IDs: 1764484, 1764485

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	93.7	93.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A67347
Included Lab Sample IDs: 1764484

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

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A67351
Included Lab Sample IDs: 1764484, 1764485

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A67355
Included Lab Sample IDs: 1764485

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.8	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	LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity				3.18	
EPA 300.0 Rev. 2.1	Chloride	101	99.8 99.1		0.0691	

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 300.0 Rev. 2.1	Chloride	104	106	103		0.504	
	Sulfate	109	104	105		0.255	
EPA 350.1 Rev. 2.0	Ammonia-N	101	100	101			0.486
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	95.5	95.3	95.0			0.250
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	104	104	104			0.606
EPA 365.1 Rev. 2.0	Total-P	95.5	101	97.6			3.54
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	102	98.5	100			1.61
SM 2120 B	Color (true)					0.589	
SM 2320 B-97	Total Alkalinity	100				0.675	
SM 2540 C-97	TDS					0.500	
SM 4500 F-C-97	Fluoride	96.9	97.5	98.1			0.476
SM 5310 B-00	Organic Carbon	92.8	92.5	92.6			0.0875

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1764482, 1764483
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1764482, 1764483
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1764482, 1764483
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1764484, 1764485
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1764484, 1764485
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1764484, 1764485
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1764484, 1764485
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1764486, 1764487
SM 2120 B / E31780	True Color measured at 450 nm	1764482, 1764483
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1764482, 1764483
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1764482, 1764483
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1764482, 1764483
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1764482, 1764483
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1764484, 1764485

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	01/21/2016			01/21/2016 13:04	Sima Feizi	1764482, 1764483
EPA 300.0 Rev. 2.1	01/21/2016			01/28/2016	Ping Hua	1764482, 1764483
	01/21/2016			01/30/2016	Ping Hua	1764482, 1764483
EPA 350.1 Rev. 2.0	01/21/2016			01/28/2016	Diana M. Turner	1764484, 1764485
EPA 351.2 Rev. 2.0	01/21/2016	01/27/2016	Christopher Armour	01/28/2016	Bryan A. Werth	1764484, 1764485
EPA 353.2 Rev. 2.0	01/21/2016			01/28/2016	Peter D. Kaus	1764484, 1764485
EPA 365.1 Rev. 2.0	01/21/2016	01/28/2016	Christopher Armour	01/29/2016	Lipi Saha	1764484, 1764485
EPA 365.1 Rev. 2.0 dissolved	01/21/2016			01/21/2016 15:19	Julia Storbeck	1764487
	01/21/2016			01/21/2016 15:47	Julia Storbeck	1764486
SM 2120 B	01/21/2016			01/21/2016 16:29	Rochelle Y Jackson	1764482
	01/21/2016			01/21/2016 16:30	Rochelle Y Jackson	1764483
SM 2320 B-97	01/21/2016			01/28/2016	Dale L. Simmons	1764482, 1764483
SM 2540 C-97	01/21/2016			01/26/2016	Sima Feizi	1764482, 1764483
SM 2540 D-97	01/21/2016			01/26/2016	Sima Feizi	1764482, 1764483
SM 4500 F-C-97	01/21/2016			01/27/2016	Dale L. Simmons	1764482, 1764483
SM 5310 B-00	01/21/2016			01/28/2016	Sofia Elnemr	1764484, 1764485