

Chemical Analysis Report

CEN-DIST-2019-06-13-01

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

Event Description: **LVI + D&B**
Request ID: **RQ-2019-05-20-23**
Customer: **CEN-DIST**
Project ID: **SMP**

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Certified by: Colin Wright, Program Administrator

Date Certified: 27-JUN-2019 09:50



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: LAKE DRAWDY @ 150M NNE OF CENTER

Collection Date/Time: 06/12/2019 11:28

Field ID: G2CE0079

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2095153	EPA 180.1 Rev. 2.0	Turbidity	1.7		NTU	P365608	
	EPA 300.0 Rev. 2.1	Chloride	26		mg Cl/L	P365811	
		Sulfate	12		mg SO4/L	P365814	
	SM 2120 B	Color (true)	120		PCU	P365604	
	SM 2320 B-97	Total Alkalinity	5.0		mg CaCO3/L	P366009	
	SM 2540 C-97	TDS	105		mg/L	P366002	
	SM 2540 D-97	TSS	2	U	mg/L	P365903	
	SM 4500 F-C-97	Fluoride	0.041	I	mg F/L	P366012	
2095154	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P366163	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.60		mg N/L	P365846	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P365819	
	EPA 365.1 Rev. 2.0	Total-P	0.017		mg P/L	P365835	
	SM 5310 B-00	Organic Carbon	16		mg C/L	P365745	
2095155	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P365614	

Sample Location: LAKE DRAWDY @ 150M NNE OF CENTER

Collection Date/Time: 06/12/2019 11:43

Field ID: G2CE0079_DUP

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2095156	EPA 180.1 Rev. 2.0	Turbidity	1.6		NTU	P365608	
	EPA 300.0 Rev. 2.1	Chloride	26		mg Cl/L	P365811	
		Sulfate	12		mg SO4/L	P365814	
		Color (true)	120		PCU	P365604	
	SM 2320 B-97	Total Alkalinity	4.7		mg CaCO3/L	P366009	
	SM 2540 C-97	TDS	106		mg/L	P366002	
	SM 2540 D-97	TSS	2	I	mg/L	P365903	
	SM 4500 F-C-97	Fluoride	0.041	I	mg F/L	P366012	
2095158	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P366163	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.60		mg N/L	P365846	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P365819	
	EPA 365.1 Rev. 2.0	Total-P	0.017		mg P/L	P365835	
	SM 5310 B-00	Organic Carbon	16		mg C/L	P365745	
2095160	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P365614	

Sample Location: FB_06122019

Collection Date/Time: 06/12/2019 10:50

Field ID: FB_06122019

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2095157	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P365608	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P365811	
		Sulfate	0.20	U	mg SO4/L	P365814	
	SM 2120 B	Color (true)	2.5	U	PCU	P365604	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P366009	
	SM 2540 C-97	TDS	15	U	mg/L	P366002	
	SM 2540 D-97	TSS	2	U	mg/L	P365903	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P366012	
2095159	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P366164	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P365846	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P365819	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P365835	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P365745	
2095161	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P365614	

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P365608

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P365811

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P365814

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366163

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366164

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P365846

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P365819

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P365835

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P365614

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: P365604

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P366009

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

Reference Method: SM 2540 C-97
Batch ID: P366002

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P365903

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P366012

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P365745

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: P365811

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

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P365814

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

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P366163

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

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P366164

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

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P365846

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	98.9		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P365819

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P365835

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P365614

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	97.3		P	90 - 110

Reference Method: SM 2120 B
 Batch ID: P365604

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-97
Batch ID: P366009

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	98 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P366012

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.5		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P365745

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.7		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P365811

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095051	Chloride	99.7		P	90 - 110
2095133	Chloride	100		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P365814

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095051	Sulfate	101		P	90 - 110
2095133	Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366163

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095106	Ammonia-N	103	103	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366164

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095240	Ammonia-N	104	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P365846

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095240	Kjeldahl Nitrogen	96.4	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P365819

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095154	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P365835

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095240	Total-P	102	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P365614

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095098	O-Phosphate-P	97.4	97.6	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P366012

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095059	Fluoride	97.6	97.6	P/P	89 - 106

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 5310 B-00
Batch ID: P365745

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095062	Organic Carbon	96.2	96.2	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P365608

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095178	Turbidity	2.11	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P365811

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095133	Chloride	0.958	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P365814

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095133	Sulfate	1.29	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366163

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095106	Ammonia-N	0.560	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366164

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095240	Ammonia-N	1.62	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P365846

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095240	Kjeldahl Nitrogen	5.13	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P365819

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095154	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P365835

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095240	Total-P	1.01	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P365614

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095098	O-Phosphate-P	0.205	Spike	P	0 - 20

Reference Method: SM 2120 B
 Batch ID: P365604

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095133	Color (true)	1.01	Sample	P	0 - 20

Reference Method: SM 2320 B-97
 Batch ID: P366009

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095059	Total Alkalinity	1.15	Sample	P	0 - 2.8

Reference Method: SM 2540 C-97
 Batch ID: P366002

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095167	TDS	0.881	Sample	P	0 - 10

Reference Method: SM 2540 D-97
 Batch ID: P365903

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095167	TSS	6.45	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
 Batch ID: P366012

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095059	Fluoride	0.0	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
 Batch ID: P365745

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095062	Organic Carbon	0.0520	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: SM 2120 B

Run ID: A92083

Included Lab Sample IDs: 2095153, 2095156, 2095157

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	99.4	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A92084

Included Lab Sample IDs: 2095153, 2095156, 2095157

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A92086

Included Lab Sample IDs: 2095155, 2095160, 2095161

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	96.4	96.4	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A92138

Included Lab Sample IDs: 2095154, 2095158, 2095159

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.5	95.0	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A92171

Included Lab Sample IDs: 2095153, 2095156, 2095157

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	102	93.4	P/P	90 - 110
Sulfate	102	94.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A92173

Included Lab Sample IDs: 2095154, 2095158, 2095159

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A92208

Included Lab Sample IDs: 2095154, 2095158, 2095159

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	95.5	98.2	P/P	90 - 110
Kjeldahl Nitrogen	96.6	95.5	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A92228

Included Lab Sample IDs: 2095153, 2095156, 2095157

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
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Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-97

Run ID: A92228

Included Lab Sample IDs: 2095153, 2095156, 2095157

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	104	P/P	90 - 110
Total Alkalinity	103	101	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A92228

Included Lab Sample IDs: 2095153, 2095156, 2095157

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A92235

Included Lab Sample IDs: 2095154, 2095158, 2095159

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.2	99.5	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A92295

Included Lab Sample IDs: 2095154, 2095158, 2095159

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	102	104	P/P	90 - 110
Ammonia-N	103	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	MS
						SMP	
EPA 180.1 Rev. 2.0	Turbidity					2.11	
EPA 300.0 Rev. 2.1	Chloride	100	100	99.7		0.958	
	Sulfate	100	101	101		1.29	
EPA 350.1 Rev. 2.0	Ammonia-N	101	103	103			0.560
	Ammonia-N	98.6	104	102			1.62
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	98.9	96.4	104			5.13
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	100	102	102			0.0
EPA 365.1 Rev. 2.0	Total-P	104	102	103			1.01
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.3	97.4	97.6			0.205
SM 2120 B	Color (true)	101				1.01	
SM 2320 B-97	Total Alkalinity	102				1.15	
SM 2540 C-97	TDS					0.881	
SM 2540 D-97	TSS					6.45	
SM 4500 F-C-97	Fluoride	98.5	97.6	97.6			0.0
SM 5310 B-00	Organic Carbon	95.7	96.2	96.2			0.0520

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2095153, 2095156, 2095157
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2095153, 2095156, 2095157
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2095153, 2095156, 2095157
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2095154, 2095158, 2095159
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2095154, 2095158, 2095159
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2095154, 2095158, 2095159
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2095154, 2095158, 2095159
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2095155, 2095160, 2095161
SM 2120 B / E31780	True Color measured at 450 nm	2095153, 2095156, 2095157
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2095153, 2095156, 2095157
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2095153, 2095156, 2095157
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2095153, 2095156, 2095157
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2095153, 2095156, 2095157
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2095154, 2095158, 2095159

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	06/13/2019			06/13/2019 15:49	Julia Storbeck	2095153, 2095156, 2095157
EPA 300.0 Rev. 2.1	06/13/2019			06/18/2019 02:04	Lipi Saha	2095153
	06/13/2019			06/18/2019 02:16	Lipi Saha	2095156
	06/13/2019			06/18/2019 02:28	Lipi Saha	2095157
EPA 350.1 Rev. 2.0	06/13/2019			06/21/2019 12:03	Ping Hua	2095154
	06/13/2019			06/21/2019 12:04	Ping Hua	2095158
	06/13/2019			06/21/2019 12:22	Ping Hua	2095159
EPA 351.2 Rev. 2.0	06/13/2019	06/18/2019 10:31	Sima Feizi	06/19/2019 10:22	Joseph Suarez	2095154
	06/13/2019	06/18/2019 10:31	Sima Feizi	06/19/2019 10:26	Joseph Suarez	2095158
	06/13/2019	06/18/2019 10:31	Sima Feizi	06/19/2019 10:28	Joseph Suarez	2095159
EPA 353.2 Rev. 2.0	06/13/2019			06/18/2019 09:41	Beverly Y. Sanders	2095154
	06/13/2019			06/18/2019 09:47	Beverly Y. Sanders	2095158
	06/13/2019			06/18/2019 09:48	Beverly Y. Sanders	2095159
EPA 365.1 Rev. 2.0	06/13/2019	06/18/2019 12:55	Sima Feizi	06/20/2019 13:33	Lipi Saha	2095154
	06/13/2019	06/18/2019 12:55	Sima Feizi	06/20/2019 13:34	Lipi Saha	2095158
	06/13/2019	06/18/2019 12:55	Sima Feizi	06/20/2019 13:35	Lipi Saha	2095159
EPA 365.1 Rev. 2.0 dissolved	06/13/2019			06/13/2019 15:59	Jhamieka S. Greenwood	2095161
	06/13/2019			06/13/2019 16:00	Jhamieka S. Greenwood	2095155
	06/13/2019			06/13/2019 16:01	Jhamieka S. Greenwood	2095160
SM 2120 B	06/13/2019			06/13/2019 15:43	Mariam Hanna	2095153
	06/13/2019			06/13/2019 15:44	Mariam Hanna	2095156
	06/13/2019			06/13/2019 15:45	Mariam Hanna	2095157
SM 2320 B-97	06/13/2019			06/19/2019 12:15	Dale L. Simmons	2095153
	06/13/2019			06/19/2019 12:26	Dale L. Simmons	2095156
	06/13/2019			06/19/2019 13:09	Dale L. Simmons	2095157
SM 2540 C-97	06/13/2019			06/14/2019 17:01	Rosalyn Ballman	2095153, 2095156, 2095157
SM 2540 D-97	06/13/2019			06/14/2019 17:01	Rosalyn Ballman	2095153, 2095156, 2095157
SM 4500 F-C-97	06/13/2019			06/19/2019 12:15	Dale L. Simmons	2095153
	06/13/2019			06/19/2019 12:26	Dale L. Simmons	2095156
	06/13/2019			06/19/2019 13:09	Dale L. Simmons	2095157
SM 5310 B-00	06/13/2019			06/15/2019 01:13	Julia Storbeck	2095159
	06/13/2019			06/15/2019 12:46	Julia Storbeck	2095154
	06/13/2019			06/15/2019 12:59	Julia Storbeck	2095158