

Chemical Analysis Report

WQAP-2016-07-21-03

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

Event Description: **Lake Arrowhead, Quincy Creek, Alford Arm Tributary and Killearn chain of lakes o**

Request ID: **RQ-2016-07-18-48**

Customer: **WQAP**

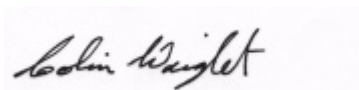
Project ID: **SMP**

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Attn: Katrina Sanders

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Certified by: Colin Wright, Environmental Administrator

Date Certified: 15-AUG-2016 14:00



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: ALFORD ARM TRIBUTARY AT BUCK LAKE RD. Collection Date/Time: 07/21/2016 08:20

Field ID: G1WA0017-07212016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1818127	EPA 180.1 Rev. 2.0	Turbidity	1.2		NTU	P308447	
	EPA 300.0 Rev. 2.1	Chloride	2.8		mg Cl/L	P309181	
	SM 2120 B	Color (true)	53		PCU	P308386	
	SM 2320 B-97	Total Alkalinity	14		mg CaCO3/L	P308880	
	SM 2540 C-97	TDS	35		mg/L	P309153	
	SM 2540 D-97	TSS	2	U	mg/L	P308906	
	SM 4500 F-C-97	Fluoride	0.044	I	mg F/L	P308883	
1818129	EPA 350.1 Rev. 2.0	Ammonia-N	0.030		mg N/L	P308508	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.59		mg N/L	P308789	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P309020	
	EPA 365.1 Rev. 2.0	Total-P	0.071		mg P/L	P308693	
	SM 5310 B-00	Organic Carbon	7.7		mg C/L	P309198	
1818131	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.033		mg P/L	P308380	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: LAKE ARROWHEAD AT BOAT DOCK AT TURTLE CREEK LN NEAR OUTLET Collection Date/Time: 07/21/2016 10:30

Field ID: G1WA0004-07212016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1818128	EPA 180.1 Rev. 2.0	Turbidity	9.6	A	NTU	P308447	
	EPA 300.0 Rev. 2.1	Chloride	3.8		mg Cl/L	P309181	
	SM 2120 B	Color (true)	16		PCU	P308386	
	SM 2320 B-97	Total Alkalinity	30		mg CaCO3/L	P308881	
	SM 2540 C-97	TDS	42		mg/L	P309153	
	SM 2540 D-97	TSS	10	I	mg/L	P308906	
	SM 4500 F-C-97	Fluoride	0.061	I	mg F/L	P308884	
1818130	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P308508	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P308789	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P308847	
	EPA 365.1 Rev. 2.0	Total-P	0.046		mg P/L	P308693	
	SM 5310 B-00	Organic Carbon	6.8		mg C/L	P309106	
1818132	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P308380	

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: P308447

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P309181

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P308508

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P308789

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P308847

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P309020

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P308693

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P308380

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

Reference Method: SM 2120 B
Batch ID: P308386

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P308880

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

Quality Assurance Report Method Blank Results

Reference Method: SM 2320 B-97
Batch ID: P308881

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

Reference Method: SM 2540 C-97
Batch ID: P309153

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P308906

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P308883

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P308884

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P309106

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

Reference Method: SM 5310 B-00
Batch ID: P309198

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: P309181

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P308508

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P308508

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	96.5		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P308789

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	105		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P308847

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P309020

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: P308693

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	99.6		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P308380

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

Reference Method: SM 2320 B-97
Batch ID: P308880

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	95 - 108

Reference Method: SM 2320 B-97
Batch ID: P308881

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	104		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P308883

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.8		P	92 - 103

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P308884

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.8		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P309106

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

Reference Method: SM 5310 B-00
Batch ID: P309198

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P309181

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1818087	Chloride	98.4		P	90 - 110
1818088	Chloride	98.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P308508

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1818090	Ammonia-N	99.0	99.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P308789

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1818090	Kjeldahl Nitrogen	104	109	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P308847

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1816769	NO2NO3-N	95.5		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P309020

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1818129	NO2NO3-N	92.5	93.5	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P308693

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1818172	Total-P	95.9	95.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P308380

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1818037	O-Phosphate-P	98.3	100	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P308883

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1818312	Fluoride	96.3	96.8	P/P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P308884

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1818863	Fluoride	98.1	97.6	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P309106

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1818014	Organic Carbon	96.4	96.2	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P309198

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1819637	Organic Carbon	106	106	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P308447

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1818128	Turbidity	0.732	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P309181

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1818088	Chloride	0.0777	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P308508

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1818090	Ammonia-N	0.313	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P308789

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1818090	Kjeldahl Nitrogen	2.78	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P308847

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1816769	NO2NO3-N	0.731	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P309020

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1818129	NO2NO3-N	1.08	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P308693

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1818172	Total-P	0.317	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P308380

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1818037	O-Phosphate-P	1.71	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P308386

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1818153	Color (true)	2.35	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P308880

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1818312	Total Alkalinity	0.378	Sample	P	0 - 4.8

Quality Assurance Report Precision

Reference Method: SM 2320 B-97
Batch ID: P308881

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1818863	Total Alkalinity	0.0457	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P309153

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1818265	TDS	0.274	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P308883

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1818312	Fluoride	0.482	Spike	P	0 - 3.0

Reference Method: SM 4500 F-C-97
Batch ID: P308884

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1818863	Fluoride	0.482	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P309106

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1818014	Organic Carbon	0.286	Spike	P	0 - 20

Reference Method: SM 5310 B-00
Batch ID: P309198

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1819637	Organic Carbon	0.497	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: A70684
Included Lab Sample IDs: 1818131, 1818132

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.4	97.6	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B

Run ID: A70685

Included Lab Sample IDs: 1818127, 1818128

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	95.6	97.2	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A70697

Included Lab Sample IDs: 1818127, 1818128

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A70718

Included Lab Sample IDs: 1818129, 1818130

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	101	99.1	P/P	90 - 110
Ammonia-N	99.1	99.1	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A70804

Included Lab Sample IDs: 1818129

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A70824

Included Lab Sample IDs: 1818130

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

Reference Method: SM 2320 B-97

Run ID: A70836

Included Lab Sample IDs: 1818127, 1818128

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

Reference Method: SM 4500 F-C-97

Run ID: A70836

Included Lab Sample IDs: 1818127, 1818128

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A70874
Included Lab Sample IDs: 1818129, 1818130

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	108	103	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A70885
Included Lab Sample IDs: 1818127, 1818128

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

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A70891
Included Lab Sample IDs: 1818129

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	101	102	P/P	90 - 110

Reference Method: SM 5310 B-00
Run ID: A70922
Included Lab Sample IDs: 1818130

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.9	97.6	P/P	90 - 110

Reference Method: SM 5310 B-00
Run ID: A70945
Included Lab Sample IDs: 1818129

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A70991
Included Lab Sample IDs: 1818130

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	97.8	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				0.732	
EPA 300.0 Rev. 2.1	Chloride	99.8	98.8 98.4		0.0777	
EPA 350.1 Rev. 2.0	Ammonia-N	96.5	99.0 99.5			0.313
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	105	104 109			2.78

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery	LCS	Precision SMP	MS
EPA 353.2 Rev. 2.0	NO2NO3-N	104	95.5			0.731
	NO2NO3-N	104	92.5 93.5			1.08
EPA 365.1 Rev. 2.0	Total-P	99.6	95.9 95.6			0.317
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101	98.3 100			1.71
SM 2120 B	Color (true)				2.35	
SM 2320 B-97	Total Alkalinity	103			0.378	
	Total Alkalinity	104			0.0457	
SM 2540 C-97	TDS				0.274	
SM 4500 F-C-97	Fluoride	97.8	96.3 96.8			0.482
	Fluoride	97.8	98.1 97.6			0.482
SM 5310 B-00	Organic Carbon	100	96.4 96.2			0.286
	Organic Carbon	102	106 106			0.497

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1818127, 1818128
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1818127, 1818128
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1818129, 1818130
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1818129, 1818130
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1818129, 1818130
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1818129, 1818130
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1818131, 1818132
SM 2120 B / E31780	True Color measured at 450 nm	1818127, 1818128
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1818127, 1818128
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1818127, 1818128
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1818127, 1818128
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1818127, 1818128
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1818129, 1818130

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	07/21/2016			07/21/2016 16:17	Blanca Fach	1818127, 1818128
EPA 300.0 Rev. 2.1	07/21/2016			08/04/2016	Ping Hua	1818127, 1818128
EPA 350.1 Rev. 2.0	07/21/2016			07/22/2016	Diana M. Turner	1818129, 1818130
EPA 351.2 Rev. 2.0	07/21/2016	07/28/2016	Sofia Elnemr	08/01/2016	Christopher Armour	1818129, 1818130
EPA 353.2 Rev. 2.0	07/21/2016			07/29/2016	Beverly Y. Sanders	1818130
	07/21/2016			08/02/2016	Beverly Y. Sanders	1818129
EPA 365.1 Rev. 2.0	07/21/2016	07/27/2016	Vijayalakshmi Reddy	07/28/2016	Lipi Saha	1818129
	07/21/2016	07/27/2016	Vijayalakshmi Reddy	08/04/2016	Lipi Saha	1818130
EPA 365.1 Rev. 2.0 dissolved	07/21/2016			07/21/2016 15:09	Julia Storbeck	1818131
	07/21/2016			07/21/2016 15:10	Julia Storbeck	1818132
SM 2120 B	07/21/2016			07/21/2016 15:41	Rochelle Y Jackson	1818127
	07/21/2016			07/21/2016 15:42	Rochelle Y Jackson	1818128
SM 2320 B-97	07/21/2016			07/28/2016	Dale L. Simmons	1818127, 1818128
SM 2540 C-97	07/21/2016			07/25/2016	Sima Feizi	1818127, 1818128
SM 2540 D-97	07/21/2016			07/25/2016	Sima Feizi	1818127, 1818128
SM 4500 F-C-97	07/21/2016			07/28/2016	Dale L. Simmons	1818127, 1818128
SM 5310 B-00	07/21/2016			08/02/2016	Sofia Elnemr	1818130
	07/21/2016			08/04/2016	Sofia Elnemr	1818129