

Chemical Analysis Report

SO-DIST-2018-08-07-01

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

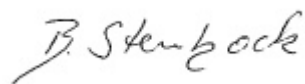
Event Description: **Caloosa Creeks**
Request ID: **RQ-2018-08-06-59**
Customer: **SO-DIST**
Project ID: **BMAP**

Send Reports to:
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Date Certified: 22-AUG-2018 18:16



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: Hancock Creek

Collection Date/Time: 08/06/2018 09:40

Field ID: G3SD0130

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2014647	SM 2120 B	Color (true)	100	A	PCU	P349751	
	SM 2320 B-97	Total Alkalinity	169	A	mg CaCO3/L	P350186	
	SM 2540 D-97	TSS	3	I	mg/L	P349961	
	SM 4500 F-C-97	Fluoride	0.17		mg F/L	P350109	
2014650	SM 5310 B-00 dissolved	Organic Carbon	15		mg C/L	P350131	
2014653	EPA 350.1 Rev. 2.0	Ammonia-N	0.051		mg N/L	P349882	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.89		mg N/L	P349922	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.058		mg N/L	P349806	
	EPA 365.1 Rev. 2.0	Total-P	0.15		mg P/L	P349967	
	SM 5310 B-00	Organic Carbon	16		mg C/L	P350132	
2014656	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.12		mg P/L	P349744	

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: Telegraph Creek

Collection Date/Time: 08/06/2018 10:30

Field ID: G3SD0129

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2014648	SM 2120 B	Color (true)	310		PCU	P349751	
	SM 2320 B-97	Total Alkalinity	66		mg CaCO3/L	P350186	
	SM 2540 D-97	TSS	4	I	mg/L	P349961	
	SM 4500 F-C-97	Fluoride	0.10		mg F/L	P350109	
2014651	SM 5310 B-00 dissolved	Organic Carbon	31		mg C/L	P350132	
2014654	EPA 350.1 Rev. 2.0	Ammonia-N	0.052		mg N/L	P349882	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P349922	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.052		mg N/L	P349806	
	EPA 365.1 Rev. 2.0	Total-P	0.19		mg P/L	P349967	
	SM 5310 B-00	Organic Carbon	31		mg C/L	P350132	
2014657	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.12		mg P/L	P349744	

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: Orange River

Collection Date/Time: 08/06/2018 11:20

Field ID: G3SD0128

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2014649	SM 2120 B	Color (true)	45		PCU	P349751	
	SM 2320 B-97	Total Alkalinity	223		mg CaCO3/L	P350186	
	SM 2540 D-97	TSS	4	I	mg/L	P349961	
	SM 4500 F-C-97	Fluoride	0.15		mg F/L	P350109	
2014652	SM 5310 B-00 dissolved	Organic Carbon	10		mg C/L	P350132	
2014655	EPA 350.1 Rev. 2.0	Ammonia-N	0.017		mg N/L	P349882	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.59		mg N/L	P349922	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.093		mg N/L	P349806	
	EPA 365.1 Rev. 2.0	Total-P	0.032		mg P/L	P349967	
	SM 5310 B-00	Organic Carbon	11		mg C/L	P350132	
2014658	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.008	I	mg P/L	P349744	

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 350.1 Rev. 2.0
Batch ID: P349882

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P349922

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P349806

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P349967

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P349744

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

Reference Method: SM 2120 B
Batch ID: P349751

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P350186

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

Reference Method: SM 2540 D-97
Batch ID: P349961

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P350109

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 5310 B-00
Batch ID: P350132

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

Reference Method: SM 5310 B-00 dissolved
Batch ID: P350131

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

Reference Method: SM 5310 B-00 dissolved
Batch ID: P350132

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P349882

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: P349922

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	99.3		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P349806

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P349967

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	97.4		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P349744

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	95.2		P	90 - 110

Reference Method: SM 2120 B
Batch ID: P349751

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	96.7		P	90 - 110

Reference Method: SM 2320 B-97
Batch ID: P350186

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	98 - 107

Reference Method: SM 4500 F-C-97
Batch ID: P350109

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.9		P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P350132

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-00 dissolved
Batch ID: P350131

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.6		P	85 - 115

Reference Method: SM 5310 B-00 dissolved
Batch ID: P350132

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P349882

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2014655	Ammonia-N	92.9	94.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P349922

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2014653	Kjeldahl Nitrogen	102	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P349806

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2014586	NO2NO3-N	101	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P349967

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2014655	Total-P	96.0	91.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P349744

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2014420	O-Phosphate-P	94.4	94.4	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P350109

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2014647	Fluoride	98.6	99.3	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P350132

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2014653	Organic Carbon	97.6	94.8	P/P	85 - 115

Reference Method: SM 5310 B-00 dissolved
Batch ID: P350131

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2012022	Organic Carbon	104		P	85 - 115

Reference Method: SM 5310 B-00 dissolved
Batch ID: P350132

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2014653	Organic Carbon	97.6	94.8	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P349882

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2014655	Ammonia-N	0.860	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P349922

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2014653	Kjeldahl Nitrogen	0.764	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P349806

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2014586	NO2NO3-N	0.418	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P349967

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2014655	Total-P	4.51	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P349744

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2014420	O-Phosphate-P	0.0	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P349751

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2014647	Color (true)	0.270	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P350186

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2014647	Total Alkalinity	0.655	Sample	P	0 - 1.6

Reference Method: SM 4500 F-C-97
Batch ID: P350109

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2014647	Fluoride	0.473	Spike	P	0 - 3.5

Quality Assurance Report Precision

Reference Method: SM 5310 B-00
Batch ID: P350132

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2014653	Organic Carbon	1.67	Spike	P	0 - 20

Reference Method: SM 5310 B-00 dissolved
Batch ID: P350131

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2012022	Organic Carbon	0.286	Spike	P	0 - 20

Reference Method: SM 5310 B-00 dissolved
Batch ID: P350132

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2014653	Organic Carbon	1.67	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: A85732

Included Lab Sample IDs: 2014656, 2014657, 2014658

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.5	96.9	P/P	90 - 110

Reference Method: SM 2120 B

Run ID: A85734

Included Lab Sample IDs: 2014647, 2014648, 2014649

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	97.7	98.2	P/P	85 - 115
Color (true)	98.2	98.9	P/P	85 - 115

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A85754

Included Lab Sample IDs: 2014653, 2014654, 2014655

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A85788

Included Lab Sample IDs: 2014653, 2014654, 2014655

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	97.9	P/P	90 - 110
Ammonia-N	97.9	95.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A85841

Included Lab Sample IDs: 2014653, 2014654, 2014655

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.6	99.3	P/P	90 - 110
Kjeldahl Nitrogen	99.3	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A85848

Included Lab Sample IDs: 2014653, 2014654

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A85853

Included Lab Sample IDs: 2014655

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	102	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 4500 F-C-97

Run ID: A85868

Included Lab Sample IDs: 2014647, 2014648, 2014649

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	101	P/P	90 - 110
Fluoride	101	102	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A85886

Included Lab Sample IDs: 2014653, 2014654, 2014655

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	100	100	P/P	90 - 110
Organic Carbon	99.6	100	P/P	90 - 110

Reference Method: SM 5310 B-00 dissolved

Run ID: A85886

Included Lab Sample IDs: 2014650, 2014651, 2014652

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	100	100	P/P	90 - 110
Organic Carbon	99.6	100	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A85905

Included Lab Sample IDs: 2014647, 2014648, 2014649

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	103	103	P/P	90 - 110
Total Alkalinity	103	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		Precision	
					LCS	SMP
EPA 350.1 Rev. 2.0	Ammonia-N	101	92.9	94.0		0.860
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.3	102	103		0.764
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	100	101	101		0.418
EPA 365.1 Rev. 2.0	Total-P	97.4	96.0	91.4		4.51
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	95.2	94.4	94.4		0.0
SM 2120 B	Color (true)	96.7				0.270
SM 2320 B-97	Total Alkalinity	103				0.655
SM 4500 F-C-97	Fluoride	97.9	98.6	99.3		0.473
SM 5310 B-00	Organic Carbon	96.2	97.6	94.8		1.67
SM 5310 B-00 dissolved	Organic Carbon	97.6	104			0.286
	Organic Carbon	96.2	97.6	94.8		1.67

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2014653, 2014654, 2014655
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2014653, 2014654, 2014655
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2014653, 2014654, 2014655
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2014653, 2014654, 2014655
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2014656, 2014657, 2014658
SM 2120 B / E31780	True Color measured at 450 nm	2014647, 2014648, 2014649
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2014647, 2014648, 2014649
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2014647, 2014648, 2014649
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2014647, 2014648, 2014649
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2014653, 2014654, 2014655
SM 5310 B-00 dissolved / E31780	Dissolved Nonpurgeable Organic Carbon in filtered, aqueous matrices	2014650, 2014651, 2014652

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 350.1 Rev. 2.0	08/07/2018			08/09/2018 15:25	Adrian Shelby	2014653
	08/07/2018			08/09/2018 15:27	Adrian Shelby	2014654
	08/07/2018			08/09/2018 15:34	Adrian Shelby	2014655
EPA 351.2 Rev. 2.0	08/07/2018	08/10/2018 11:00	Adrian Shelby	08/13/2018 14:44	Joseph Suarez	2014653
	08/07/2018	08/10/2018 11:00	Adrian Shelby	08/13/2018 14:52	Joseph Suarez	2014654
	08/07/2018	08/10/2018 11:00	Adrian Shelby	08/13/2018 14:53	Joseph Suarez	2014655
EPA 353.2 Rev. 2.0	08/07/2018			08/08/2018 13:55	Lauren Bottorf	2014653
	08/07/2018			08/08/2018 13:56	Lauren Bottorf	2014654
	08/07/2018			08/08/2018 13:57	Lauren Bottorf	2014655
EPA 365.1 Rev. 2.0	08/07/2018	08/13/2018 11:40	Sima Feizi	08/14/2018 09:18	Beverly Y. Sanders	2014653
	08/07/2018	08/13/2018 11:40	Sima Feizi	08/14/2018 09:19	Beverly Y. Sanders	2014654
	08/07/2018	08/13/2018 11:40	Sima Feizi	08/14/2018 11:16	Beverly Y. Sanders	2014655
EPA 365.1 Rev. 2.0 dissolved	08/07/2018			08/07/2018 15:04	Megan Treadwell	2014656
	08/07/2018			08/07/2018 15:05	Megan Treadwell	2014657
	08/07/2018			08/07/2018 15:06	Megan Treadwell	2014658
SM 2120 B	08/07/2018			08/07/2018 16:43	Tanya Welborn	2014647
	08/07/2018			08/07/2018 16:44	Tanya Welborn	2014649
	08/07/2018			08/07/2018 17:01	Tanya Welborn	2014648
SM 2320 B-97	08/07/2018			08/16/2018 03:02	Dale L. Simmons	2014647
	08/07/2018			08/16/2018 04:50	Dale L. Simmons	2014648
	08/07/2018			08/16/2018 04:59	Dale L. Simmons	2014649
SM 2540 D-97	08/07/2018			08/08/2018 15:01	Yijie Li	2014647, 2014648, 2014649
SM 4500 F-C-97	08/07/2018			08/14/2018 03:51	Dale L. Simmons	2014647
	08/07/2018			08/14/2018 06:34	Dale L. Simmons	2014648
	08/07/2018			08/14/2018 06:46	Dale L. Simmons	2014649
SM 5310 B-00	08/07/2018			08/14/2018 21:07	Megan Treadwell	2014653
	08/07/2018			08/14/2018 22:57	Megan Treadwell	2014654
	08/07/2018			08/14/2018 23:12	Megan Treadwell	2014655
SM 5310 B-00 dissolved	08/07/2018			08/14/2018 20:24	Megan Treadwell	2014650
	08/07/2018			08/14/2018 22:30	Megan Treadwell	2014651
	08/07/2018			08/14/2018 22:44	Megan Treadwell	2014652