

Chemical Analysis Report

SO-DIST-2019-02-28-01

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

Event Description: **Keys**
Request ID: **RQ-2019-02-25-50**
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 33901-3381
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Certified by: Colin Wright, Program Administrator

Date Certified: 22-MAR-2019 13:36

A handwritten signature in black ink, appearing to read "Colin Wright", 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 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: 8073 @ENRG1 Dredgers#2

Collection Date/Time: 02/27/2019 08:20

Field ID: G5SD0096

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2066003	EPA 180.1 Rev. 2.0	Turbidity	0.75		NTU	P359717	
	EPA 300.0	Bromide	80		mg Br/L	P360481	
	SM 2320 B-97	Total Alkalinity	120		mg CaCO3/L	P359961	RPD
	SM 2540 D-97	TSS	3	U	mg/L	P359856	
	SM 4500 F-C-97	Fluoride	1.3		mg F/L	P359964	
2066017	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P360054	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.38	I	mg N/L	P359838	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P359766	
	EPA 365.1 Rev. 2.0	Total-P	0.01	I	mg P/L	P359814	
	SM 5310 B-00	Organic Carbon	2.4		mg C/L	P360282	
2066031	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P359720	

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: 8073 @ENRG1 DredgersKey

Collection Date/Time: 02/27/2019 08:30

Field ID: G5SD0066

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2066004	EPA 180.1 Rev. 2.0	Turbidity	0.75		NTU	P359717	
	EPA 300.0	Bromide	80		mg Br/L	P360481	
	SM 2320 B-97	Total Alkalinity	123		mg CaCO3/L	P359961	RPD
	SM 2540 D-97	TSS	3	I	mg/L	P359856	
	SM 4500 F-C-97	Fluoride	1.3		mg F/L	P359964	
2066018	EPA 350.1 Rev. 2.0	Ammonia-N	0.010		mg N/L	P360054	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.37	I	mg N/L	P359838	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P359766	
	EPA 365.1 Rev. 2.0	Total-P	0.009	I	mg P/L	P359814	
	SM 5310 B-00	Organic Carbon	2.3		mg C/L	P360282	
2066032	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P359720	

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: 8073 @ENRG2 Bayside #2

Collection Date/Time: 02/27/2019 08:55

Field ID: G5SD0082

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2066005	EPA 180.1 Rev. 2.0	Turbidity	0.95		NTU	P359717	
	EPA 300.0	Bromide	79		mg Br/L	P360481	
	SM 2320 B-97	Total Alkalinity	121		mg CaCO3/L	P359961	RPD
	SM 2540 D-97	TSS	6	I	mg/L	P359856	
	SM 4500 F-C-97	Fluoride	1.3		mg F/L	P359964	
2066019	EPA 350.1 Rev. 2.0	Ammonia-N	0.005		mg N/L	P360054	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.29	I	mg N/L	P359838	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.005	I	mg N/L	P359766	
	EPA 365.1 Rev. 2.0	Total-P	0.011		mg P/L	P359814	
	SM 5310 B-00	Organic Carbon	1.7	I	mg C/L	P360282	
2066033	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P359720	

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: 8073 @ENRG2 Bayside #1

Collection Date/Time: 02/27/2019 09:00

Field ID: G5SD0065

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2066006	EPA 180.1 Rev. 2.0	Turbidity	1.0		NTU	P359717	
	EPA 300.0	Bromide	80		mg Br/L	P360481	
	SM 2320 B-97	Total Alkalinity	121		mg CaCO3/L	P359961	RPD
	SM 2540 D-97	TSS	4	IA	mg/L	P359856	
	SM 4500 F-C-97	Fluoride	1.3		mg F/L	P359964	
2066020	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P360054	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.25	I	mg N/L	P359838	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P359766	
	EPA 365.1 Rev. 2.0	Total-P	0.009	I	mg P/L	P359814	
	SM 5310 B-00	Organic Carbon	1.8	I	mg C/L	P360282	
2066034	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P359720	

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: 8073#2 S of FtZachENRG3

Collection Date/Time: 02/27/2019 09:35

Field ID: G5SD0095

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2066007	EPA 180.1 Rev. 2.0	Turbidity	1.3		NTU	P359717	
	EPA 300.0	Bromide	79		mg Br/L	P360481	
	SM 2320 B-97	Total Alkalinity	122		mg CaCO3/L	P359961	RPD
	SM 2540 D-97	TSS	9	I	mg/L	P359856	
	SM 4500 F-C-97	Fluoride	1.3		mg F/L	P359964	
2066021	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P360054	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.16	U	mg N/L	P359838	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.011		mg N/L	P359766	
	EPA 365.1 Rev. 2.0	Total-P	0.008	I	mg P/L	P359814	
	SM 5310 B-00	Organic Carbon	1.9	I	mg C/L	P360282	
2066035	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P359720	

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: 8073#1 S of Ft. Zach

Collection Date/Time: 02/27/2019 09:45

Field ID: G5SD0062

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2066008	EPA 180.1 Rev. 2.0	Turbidity	1.2		NTU	P359718	
	EPA 300.0	Bromide	79		mg Br/L	P360481	
	SM 2320 B-97	Total Alkalinity	122		mg CaCO3/L	P359961	RPD
	SM 2540 D-97	TSS	3	I	mg/L	P359856	
	SM 4500 F-C-97	Fluoride	1.3		mg F/L	P359964	
2066022	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P360054	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.25	I	mg N/L	P359838	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.005	I	mg N/L	P359768	
	EPA 365.1 Rev. 2.0	Total-P	0.008	I	mg P/L	P359814	
	SM 5310 B-00	Organic Carbon	1.8	I	mg C/L	P360282	
2066036	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P359720	

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: 8079 @ENRG3 Nearshore#2

Collection Date/Time: 02/27/2019 10:00

Field ID: G5SD0084

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2066009	EPA 180.1 Rev. 2.0	Turbidity	1.2		NTU	P359718	
	EPA 300.0	Bromide	80		mg Br/L	P360481	
	SM 2320 B-97	Total Alkalinity	122		mg CaCO3/L	P359961	RPD
	SM 2540 D-97	TSS	5	I	mg/L	P359856	
	SM 4500 F-C-97	Fluoride	1.3		mg F/L	P359964	
2066023	EPA 350.1 Rev. 2.0	Ammonia-N	0.005		mg N/L	P360054	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.28	I	mg N/L	P359838	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.005	I	mg N/L	P359768	
	EPA 365.1 Rev. 2.0	Total-P	0.008	I	mg P/L	P360739	
	SM 5310 B-00	Organic Carbon	1.8	I	mg C/L	P360282	
2066037	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P359720	

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: 8079 @ENRG3 StockIsland

Collection Date/Time: 02/27/2019 10:10

Field ID: G5SD0067

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2066010	EPA 180.1 Rev. 2.0	Turbidity	0.90		NTU	P359715	
	EPA 300.0	Bromide	79		mg Br/L	P360481	
	SM 2320 B-97	Total Alkalinity	122		mg CaCO3/L	P359961	RPD
	SM 2540 D-97	TSS	5	I	mg/L	P359856	
	SM 4500 F-C-97	Fluoride	1.3		mg F/L	P359964	
2066024	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P360054	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.27	I	mg N/L	P359838	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.005	I	mg N/L	P359768	
	EPA 365.1 Rev. 2.0	Total-P	0.007	I	mg P/L	P359814	
	SM 5310 B-00	Organic Carbon	1.9	I	mg C/L	P360282	
2066038	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P359720	

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: 8079 @ENRG6 Out@Reef#2

Collection Date/Time: 02/27/2019 10:30

Field ID: G5SD0085

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2066011	EPA 180.1 Rev. 2.0	Turbidity	0.40		NTU	P359715	
	EPA 300.0	Bromide	79		mg Br/L	P360481	
	SM 2320 B-97	Total Alkalinity	123		mg CaCO3/L	P359961	RPD
	SM 2540 D-97	TSS	8	I	mg/L	P359856	
	SM 4500 F-C-97	Fluoride	1.3		mg F/L	P359964	
2066025	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P360054	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.26	I	mg N/L	P359838	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P359768	
	EPA 365.1 Rev. 2.0	Total-P	0.007	I	mg P/L	P359814	
	SM 5310 B-00	Organic Carbon	1.3	I	mg C/L	P360282	
2066039	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P359720	

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: 8079 @ENRG6 Out@Reef#1

Collection Date/Time: 02/27/2019 10:40

Field ID: G5SD0068

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2066012	EPA 180.1 Rev. 2.0	Turbidity	0.25		NTU	P359715	
	EPA 300.0	Bromide	78		mg Br/L	P360481	
	SM 2320 B-97	Total Alkalinity	122		mg CaCO3/L	P359961	RPD
	SM 2540 D-97	TSS	3	U	mg/L	P359857	
	SM 4500 F-C-97	Fluoride	1.3		mg F/L	P359964	
2066026	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P360054	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.19	I	mg N/L	P359842	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P359768	
	EPA 365.1 Rev. 2.0	Total-P	0.007	I	mg P/L	P359814	
	SM 5310 B-00	Organic Carbon	1.1	I	mg C/L	P360282	
2066040	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P359720	

Sample Location: 8073 @ENRG6 Out@Reef #1

Collection Date/Time: 02/27/2019 11:08

Field ID: G5SD0064

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2066013	EPA 180.1 Rev. 2.0	Turbidity	0.35		NTU	P359715	
	EPA 300.0	Bromide	80		mg Br/L	P360482	
	SM 2320 B-97	Total Alkalinity	122		mg CaCO3/L	P359961	RPD
	SM 2540 D-97	TSS	6	I	mg/L	P359857	
	SM 4500 F-C-97	Fluoride	1.3		mg F/L	P359964	
2066027	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P360135	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.20	I	mg N/L	P359842	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P359768	
	EPA 365.1 Rev. 2.0	Total-P	0.006	I	mg P/L	P359843	MS
	SM 5310 B-00	Organic Carbon	1.2	I	mg C/L	P360282	
2066041	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P359722	

Sample Location: 8073 @ENRG6 Out@Reef #2

Collection Date/Time: 02/27/2019 11:15

Field ID: G5SD0083

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2066014	EPA 180.1 Rev. 2.0	Turbidity	0.50		NTU	P359715	
	EPA 300.0	Bromide	79		mg Br/L	P360482	
	SM 2320 B-97	Total Alkalinity	122		mg CaCO3/L	P359961	RPD
	SM 2540 D-97	TSS	5	I	mg/L	P359857	
	SM 4500 F-C-97	Fluoride	1.3		mg F/L	P359964	
2066028	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P360135	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.19	I	mg N/L	P359842	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P359768	
	EPA 365.1 Rev. 2.0	Total-P	0.006	I	mg P/L	P359843	MS
	SM 5310 B-00	Organic Carbon	1.5	I	mg C/L	P360400	
2066042	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P359722	

Sample Location: 8073@ENRG4 WofKeywest#1

Collection Date/Time: 02/27/2019 11:30

Field ID: G5SD0063

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2066015	EPA 180.1 Rev. 2.0	Turbidity	0.45		NTU	P359715	
	EPA 300.0	Bromide	80		mg Br/L	P360482	
	SM 2320 B-97	Total Alkalinity	122		mg CaCO3/L	P359961	RPD
	SM 2540 D-97	TSS	26	A	mg/L	P359857	
	SM 4500 F-C-97	Fluoride	1.3		mg F/L	P359964	
2066029	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P360135	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.28	I	mg N/L	P359842	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P359768	
	EPA 365.1 Rev. 2.0	Total-P	0.007	IJ	mg P/L	P359843	MS
	SM 5310 B-00	Organic Carbon	1.8	I	mg C/L	P360400	
2066043	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P359722	

Ref. Method and Comment:

SM 2540 D-97: The result was confirmed 03/08/2019.

EPA 365.1 Rev. 2.0: Refer to the narrative for an explanation of QC Codes.

Sample Location: 8073@ENRG4 WofKeywest#2

Collection Date/Time: 02/27/2019 11:40

Field ID: G5SD0081

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2066016	EPA 180.1 Rev. 2.0	Turbidity	0.65		NTU	P359715	
	EPA 300.0	Bromide	79		mg Br/L	P360482	
	SM 2320 B-97	Total Alkalinity	123		mg CaCO3/L	P359961	RPD
	SM 2540 D-97	TSS	3	I	mg/L	P359857	
	SM 4500 F-C-97	Fluoride	1.3		mg F/L	P359964	
2066030	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P360135	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.27	I	mg N/L	P359842	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.005	I	mg N/L	P359768	
	EPA 365.1 Rev. 2.0	Total-P	0.007	I	mg P/L	P359843	MS
	SM 5310 B-00	Organic Carbon	1.9	I	mg C/L	P360400	
2066044	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P359722	

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P359715

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P359717

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P359718

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0
Batch ID: P360481

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Reference Method: EPA 300.0
Batch ID: P360482

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P360054

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P360135

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P359838

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P359842

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P359766

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P359768

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P359814

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P359843

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P360739

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P359720

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P359722

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

Reference Method: SM 2320 B-97
Batch ID: P359961

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

Reference Method: SM 2540 D-97
Batch ID: P359856

Component	Result	Code	Units
TSS	3	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 D-97
Batch ID: P359857

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P359964

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P360282

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

Reference Method: SM 5310 B-00
Batch ID: P360400

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0
Batch ID: P360481

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

Reference Method: EPA 300.0
Batch ID: P360482

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Bromide	103		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P360054

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P360135

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P359838

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P359842

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P359766

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P359768

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P359814

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P359843

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P360739

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P359720

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P359722

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

Reference Method: SM 2320 B-97
Batch ID: P359961

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	98 - 107

Reference Method: SM 4500 F-C-97
Batch ID: P359964

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.3		P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P360282

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.0		P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P360400

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0
Batch ID: P360481

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2065776	Bromide	101	102	P/P	90 - 110
2065785	Bromide	98.3		P	90 - 110

Reference Method: EPA 300.0
Batch ID: P360482

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2067489	Bromide	97.9	99.1	P/P	90 - 110
2067490	Bromide	99.1		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P360054

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2066017	Ammonia-N	107	103	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P360135

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2066027	Ammonia-N	103	106	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P359838

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2066017	Kjeldahl Nitrogen	98.3	93.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P359842

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2066027	Kjeldahl Nitrogen	96.1	105	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P359766

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2065910	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P359768

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2066022	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P359814

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2066017	Total-P	91.0	90.8	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P359843

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2066029	Total-P	89.8	90.4	F/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P360739

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2070351	Total-P	95.9	93.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P359720

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2066033	O-Phosphate-P	91.6	94.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P359722

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2066042	O-Phosphate-P	91.1	94.7	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P359964

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2066327	Fluoride	92.0	92.7	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P360282

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2063600	Organic Carbon	92.4	93.1	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P360400

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2065574	Organic Carbon	91.1	92.9	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P359715

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2066089	Turbidity	3.03	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P359717

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2065962	Turbidity	4.01	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P359718

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2065963	Turbidity	2.72	Sample	P	0 - 20

Reference Method: EPA 300.0
Batch ID: P360481

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2065776	Bromide	0.688	Spike	P	0 - 20

Reference Method: EPA 300.0
Batch ID: P360482

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2067489	Bromide	0.902	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P360054

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2066017	Ammonia-N	3.68	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P360135

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2066027	Ammonia-N	3.32	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P359838

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2066017	Kjeldahl Nitrogen	4.36	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P359842

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2066027	Kjeldahl Nitrogen	7.87	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P359766

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2065910	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P359768

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2066022	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P359814

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2066017	Total-P	0.193	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P359843

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2066029	Total-P	0.666	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P360739

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2070351	Total-P	2.46	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P359720

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2066033	O-Phosphate-P	3.12	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P359722

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2066042	O-Phosphate-P	3.88	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 2320 B-97
 Batch ID: P359961

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2066327	Total Alkalinity	1.58	Sample	F	0 - 1.6

Reference Method: SM 2540 D-97
 Batch ID: P359857

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2066015	TSS	3.12	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
 Batch ID: P359964

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2066327	Fluoride	0.470	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
 Batch ID: P360282

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2063600	Organic Carbon	0.661	Spike	P	0 - 20

Reference Method: SM 5310 B-00
 Batch ID: P360400

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2065574	Organic Carbon	1.86	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 180.1 Rev. 2.0

Run ID: A89730

Included Lab Sample IDs: 2066003, 2066004, 2066005, 2066006, 2066007, 2066008, 2066009, 2066010, 2066011, 2066012, 2066013, 2066014, 2066015, 2066016

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	100	P/P	95 - 105
Turbidity	100	100	P/P	95 - 105
Turbidity	99.0	100	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A89731

Included Lab Sample IDs: 2066031, 2066032, 2066033, 2066034, 2066035, 2066036, 2066037, 2066038, 2066039, 2066040, 2066041, 2066042, 2066043, 2066044

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	96.4	96.5	P/P	90 - 110
O-Phosphate-P	96.5	94.1	P/P	90 - 110
O-Phosphate-P	97.7	97.9	P/P	90 - 110
O-Phosphate-P	99.1	97.7	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A89744

Included Lab Sample IDs: 2066017, 2066018, 2066019, 2066020, 2066021, 2066022, 2066023, 2066024, 2066025, 2066026, 2066027, 2066028, 2066029, 2066030

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	100	P/P	90 - 110
NO2NO3-N	99.5	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A89812

Included Lab Sample IDs: 2066017, 2066018, 2066019, 2066020, 2066021, 2066022, 2066023, 2066024, 2066025

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	102	104	P/P	90 - 110
Kjeldahl Nitrogen	107	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A89820

Included Lab Sample IDs: 2066026, 2066027, 2066028, 2066029, 2066030

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	102	107	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A89826

Included Lab Sample IDs: 2066003, 2066004, 2066005, 2066006, 2066007, 2066008, 2066009, 2066010, 2066011, 2066012, 2066013, 2066014, 2066015, 2066016

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

Quality Assurance Report Calibration Verification

Reference Method: SM 4500 F-C-97

Run ID: A89826

Included Lab Sample IDs: 2066003, 2066004, 2066005, 2066006, 2066007, 2066008, 2066009, 2066010, 2066011, 2066012, 2066013, 2066014, 2066015, 2066016

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.1	100	P/P	90 - 110
Fluoride	99.1	99.1	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A89868

Included Lab Sample IDs: 2066017, 2066018, 2066019, 2066020, 2066021, 2066022, 2066023, 2066024, 2066025, 2066026

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	102	102	P/P	90 - 110
Ammonia-N	102	103	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A89900

Included Lab Sample IDs: 2066027, 2066028, 2066029, 2066030

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	102	103	P/P	90 - 110
Ammonia-N	103	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A89942

Included Lab Sample IDs: 2066017, 2066018, 2066019, 2066020, 2066021, 2066022, 2066024, 2066025, 2066026, 2066027, 2066028, 2066029, 2066030

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

Reference Method: SM 5310 B-00

Run ID: A89961

Included Lab Sample IDs: 2066017, 2066018, 2066019, 2066020, 2066021, 2066022, 2066023, 2066024, 2066025, 2066026, 2066027

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	91.2	93.8	P/P	90 - 110
Organic Carbon	92.0	91.2	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A89997

Included Lab Sample IDs: 2066028, 2066029, 2066030

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	91.4	93.8	P/P	90 - 110

Reference Method: EPA 300.0

Run ID: A90025

Included Lab Sample IDs: 2066003, 2066004, 2066005, 2066006, 2066007, 2066008, 2066009, 2066010, 2066011, 2066012, 2066013, 2066014, 2066015, 2066016

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bromide	104	105	P/P	90 - 110
Bromide	105	108	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0

Run ID: A90025

Included Lab Sample IDs: 2066003, 2066004, 2066005, 2066006, 2066007, 2066008, 2066009, 2066010, 2066011, 2066012, 2066013, 2066014, 2066015, 2066016

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bromide	108	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A90150

Included Lab Sample IDs: 2066023

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	102	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	MS
EPA 180.1 Rev. 2.0	Turbidity					3.03	
	Turbidity					4.01	
	Turbidity					2.72	
EPA 300.0	Bromide	101	101	102	98.3		0.688
	Bromide	103	97.9	99.1	99.1		0.902
EPA 350.1 Rev. 2.0	Ammonia-N	102	107	103			3.68
	Ammonia-N	100	103	106			3.32
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	102	98.3	93.4			4.36
	Kjeldahl Nitrogen	107	96.1	105			7.87
EPA 353.2 Rev. 2.0	NO2NO3-N	100	102	102			0.0
	NO2NO3-N	101	102	102			0.0
EPA 365.1 Rev. 2.0	Total-P	102	91.0	90.8			0.193
	Total-P	104	89.8	90.4			0.666
	Total-P	97.6	95.9	93.4			2.46
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.0	91.6	94.5			3.12
	O-Phosphate-P	98.9	91.1	94.7			3.88
SM 2320 B-97	Total Alkalinity	102				1.58	
SM 2540 D-97	TSS					3.12	
SM 4500 F-C-97	Fluoride	95.3	92.0	92.7			0.470
SM 5310 B-00	Organic Carbon	96.0	92.4	93.1			0.661
	Organic Carbon	94.8	91.1	92.9			1.86

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2066003, 2066004, 2066005, 2066006, 2066007, 2066008, 2066009, 2066010, 2066011, 2066012, 2066013, 2066014, 2066015, 2066016
EPA 300.0 / E31780	Bromide in aqueous matrices	2066003, 2066004, 2066005, 2066006, 2066007, 2066008, 2066009, 2066010, 2066011, 2066012, 2066013, 2066014, 2066015, 2066016
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2066017, 2066018, 2066019, 2066020, 2066021, 2066022, 2066023, 2066024, 2066025, 2066026, 2066027, 2066028, 2066029, 2066030
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2066017, 2066018, 2066019, 2066020, 2066021, 2066022, 2066023, 2066024, 2066025, 2066026, 2066027, 2066028, 2066029, 2066030
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2066017, 2066018, 2066019, 2066020, 2066021, 2066022, 2066023, 2066024, 2066025, 2066026, 2066027, 2066028, 2066029, 2066030
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2066017, 2066018, 2066019, 2066020, 2066021, 2066022, 2066023, 2066024, 2066025, 2066026, 2066027, 2066028, 2066029, 2066030
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2066031, 2066032, 2066033, 2066034, 2066035, 2066036, 2066037, 2066038, 2066039, 2066040, 2066041, 2066042, 2066043, 2066044
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	2066003, 2066004, 2066005, 2066006, 2066007, 2066008, 2066009, 2066010, 2066011, 2066012, 2066013, 2066014, 2066015, 2066016

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2066003, 2066004, 2066005, 2066006, 2066007, 2066008, 2066009, 2066010, 2066011, 2066012, 2066013, 2066014, 2066015, 2066016
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2066003, 2066004, 2066005, 2066006, 2066007, 2066008, 2066009, 2066010, 2066011, 2066012, 2066013, 2066014, 2066015, 2066016
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2066017, 2066018, 2066019, 2066020, 2066021, 2066022, 2066023, 2066024, 2066025, 2066026, 2066027, 2066028, 2066029, 2066030

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	02/28/2019			02/28/2019 17:07	Adrian Shelby	2066003, 2066004, 2066005, 2066006, 2066007, 2066008, 2066009, 2066010, 2066011, 2066012, 2066013, 2066014, 2066015, 2066016
EPA 300.0	02/28/2019			03/14/2019 04:11	Lipi Saha	2066003
	02/28/2019			03/14/2019 04:28	Lipi Saha	2066004
	02/28/2019			03/14/2019 04:46	Lipi Saha	2066005
	02/28/2019			03/14/2019 05:03	Lipi Saha	2066006
	02/28/2019			03/14/2019 05:20	Lipi Saha	2066007
	02/28/2019			03/14/2019 05:37	Lipi Saha	2066008
	02/28/2019			03/14/2019 05:54	Lipi Saha	2066009
	02/28/2019			03/14/2019 06:45	Lipi Saha	2066010
	02/28/2019			03/14/2019 07:02	Lipi Saha	2066011
	02/28/2019			03/14/2019 07:19	Lipi Saha	2066012
	02/28/2019			03/14/2019 10:10	Lipi Saha	2066013
	02/28/2019			03/14/2019 10:27	Lipi Saha	2066014
	02/28/2019			03/14/2019 10:44	Lipi Saha	2066015
	02/28/2019			03/14/2019 11:01	Lipi Saha	2066016
EPA 350.1 Rev. 2.0	02/28/2019			03/06/2019 13:02	Ping Hua	2066017
	02/28/2019			03/06/2019 13:12	Ping Hua	2066018
	02/28/2019			03/06/2019 13:14	Ping Hua	2066019
	02/28/2019			03/06/2019 13:15	Ping Hua	2066020
	02/28/2019			03/06/2019 13:17	Ping Hua	2066021
	02/28/2019			03/06/2019 13:18	Ping Hua	2066022
	02/28/2019			03/06/2019 13:20	Ping Hua	2066023
	02/28/2019			03/06/2019 13:21	Ping Hua	2066024
	02/28/2019			03/06/2019 13:23	Ping Hua	2066025
	02/28/2019			03/06/2019 13:24	Ping Hua	2066026
	02/28/2019			03/07/2019 12:48	Ping Hua	2066027
	02/28/2019			03/07/2019 12:53	Ping Hua	2066028
	02/28/2019			03/07/2019 12:54	Ping Hua	2066029
	02/28/2019			03/07/2019 13:02	Ping Hua	2066030
EPA 351.2 Rev. 2.0	02/28/2019	03/04/2019 16:00	Adrian Shelby	03/05/2019 13:23	Joseph Suarez	2066017
	02/28/2019	03/04/2019 16:00	Adrian Shelby	03/05/2019 13:31	Joseph Suarez	2066018
	02/28/2019	03/04/2019 16:00	Adrian Shelby	03/05/2019 13:33	Joseph Suarez	2066019
	02/28/2019	03/04/2019 16:00	Adrian Shelby	03/05/2019 13:34	Joseph Suarez	2066020
	02/28/2019	03/04/2019 16:00	Adrian Shelby	03/05/2019 13:36	Joseph Suarez	2066021
	02/28/2019	03/04/2019 16:00	Adrian Shelby	03/05/2019 13:37	Joseph Suarez	2066022
	02/28/2019	03/04/2019 16:00	Adrian Shelby	03/05/2019 13:39	Joseph Suarez	2066023
	02/28/2019	03/04/2019 16:00	Adrian Shelby	03/05/2019 13:40	Joseph Suarez	2066024

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 351.2 Rev. 2.0	02/28/2019	03/04/2019 16:00	Adrian Shelby	03/05/2019 13:42	Joseph Suarez	2066025
	02/28/2019	03/04/2019 16:00	Adrian Shelby	03/06/2019 09:45	Joseph Suarez	2066026
	02/28/2019	03/04/2019 16:00	Adrian Shelby	03/06/2019 09:46	Joseph Suarez	2066027
	02/28/2019	03/04/2019 16:00	Adrian Shelby	03/06/2019 09:51	Joseph Suarez	2066028
	02/28/2019	03/04/2019 16:00	Adrian Shelby	03/06/2019 09:53	Joseph Suarez	2066029
	02/28/2019	03/04/2019 16:00	Adrian Shelby	03/06/2019 09:54	Joseph Suarez	2066030
	02/28/2019			03/01/2019 11:34	Beverly Y. Sanders	2066017
EPA 353.2 Rev. 2.0	02/28/2019			03/01/2019 11:35	Beverly Y. Sanders	2066018
	02/28/2019			03/01/2019 11:36	Beverly Y. Sanders	2066019
	02/28/2019			03/01/2019 11:37	Beverly Y. Sanders	2066020
	02/28/2019			03/01/2019 11:38	Beverly Y. Sanders	2066021
	02/28/2019			03/01/2019 11:46	Beverly Y. Sanders	2066022
	02/28/2019			03/01/2019 11:51	Beverly Y. Sanders	2066023
	02/28/2019			03/01/2019 11:53	Beverly Y. Sanders	2066024
	02/28/2019			03/01/2019 11:54	Beverly Y. Sanders	2066025
	02/28/2019			03/01/2019 11:55	Beverly Y. Sanders	2066026
	02/28/2019			03/01/2019 11:56	Beverly Y. Sanders	2066027
	02/28/2019			03/01/2019 11:57	Beverly Y. Sanders	2066028
	02/28/2019			03/01/2019 11:59	Beverly Y. Sanders	2066029
	02/28/2019			03/01/2019 12:00	Beverly Y. Sanders	2066030
EPA 365.1 Rev. 2.0	02/28/2019	03/04/2019 13:30	Sima Feizi	03/11/2019 15:26	Rosalyn Ballman	2066017
	02/28/2019	03/04/2019 13:30	Sima Feizi	03/11/2019 15:27	Rosalyn Ballman	2066018
	02/28/2019	03/04/2019 13:30	Sima Feizi	03/11/2019 15:28	Rosalyn Ballman	2066019
	02/28/2019	03/04/2019 13:30	Sima Feizi	03/11/2019 15:29	Rosalyn Ballman	2066020
	02/28/2019	03/04/2019 13:30	Sima Feizi	03/11/2019 15:30	Rosalyn Ballman	2066021
	02/28/2019	03/04/2019 13:30	Sima Feizi	03/11/2019 15:31	Rosalyn Ballman	2066022
	02/28/2019	03/04/2019 13:30	Sima Feizi	03/11/2019 15:33	Rosalyn Ballman	2066024
	02/28/2019	03/04/2019 13:30	Sima Feizi	03/11/2019 15:34	Rosalyn Ballman	2066025
	02/28/2019	03/04/2019 13:30	Sima Feizi	03/11/2019 15:41	Rosalyn Ballman	2066026
	02/28/2019	03/04/2019 13:30	Sima Feizi	03/11/2019 15:43	Rosalyn Ballman	2066027
	02/28/2019	03/04/2019 13:30	Sima Feizi	03/11/2019 15:44	Rosalyn Ballman	2066028
	02/28/2019	03/04/2019 13:30	Sima Feizi	03/11/2019 15:45	Rosalyn Ballman	2066029
	02/28/2019	03/04/2019 13:30	Sima Feizi	03/11/2019 15:46	Rosalyn Ballman	2066030
	02/28/2019	03/20/2019 12:25	Joseph Suarez	03/21/2019 09:56	Beverly Y. Sanders	2066023
EPA 365.1 Rev. 2.0 dissolved	02/28/2019			02/28/2019 15:43	Jhamieka S. Greenwood	2066033
	02/28/2019			02/28/2019 15:55	Jhamieka S. Greenwood	2066042
	02/28/2019			02/28/2019 16:29	Jhamieka S. Greenwood	2066031, 2066032
	02/28/2019			02/28/2019 16:30	Jhamieka S. Greenwood	2066034
	02/28/2019			02/28/2019 16:31	Jhamieka S. Greenwood	2066035
	02/28/2019			02/28/2019 16:32	Jhamieka S. Greenwood	2066036

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 365.1 Rev. 2.0 dissolved	02/28/2019			02/28/2019 16:33	Jhamieka S. Greenwood	2066037
	02/28/2019			02/28/2019 16:34	Jhamieka S. Greenwood	2066038
	02/28/2019			02/28/2019 16:35	Jhamieka S. Greenwood	2066039, 2066040
	02/28/2019			02/28/2019 16:40	Jhamieka S. Greenwood	2066041
	02/28/2019			02/28/2019 16:41	Jhamieka S. Greenwood	2066043
	02/28/2019			02/28/2019 16:42	Jhamieka S. Greenwood	2066044
	02/28/2019			03/06/2019 04:48	Dale L. Simmons	2066003
SM 2320 B-97	02/28/2019			03/06/2019 05:00	Dale L. Simmons	2066004
	02/28/2019			03/06/2019 05:12	Dale L. Simmons	2066005
	02/28/2019			03/06/2019 05:24	Dale L. Simmons	2066006
	02/28/2019			03/06/2019 05:37	Dale L. Simmons	2066007
	02/28/2019			03/06/2019 05:49	Dale L. Simmons	2066008
	02/28/2019			03/06/2019 06:00	Dale L. Simmons	2066009
	02/28/2019			03/06/2019 06:12	Dale L. Simmons	2066010
	02/28/2019			03/06/2019 06:25	Dale L. Simmons	2066011
	02/28/2019			03/06/2019 06:37	Dale L. Simmons	2066012
	02/28/2019			03/06/2019 06:49	Dale L. Simmons	2066013
	02/28/2019			03/06/2019 07:01	Dale L. Simmons	2066014
	02/28/2019			03/06/2019 07:13	Dale L. Simmons	2066015
	02/28/2019			03/06/2019 07:25	Dale L. Simmons	2066016
	02/28/2019			03/01/2019 15:45	Mariam Hanna	2066003, 2066004, 2066005, 2066006, 2066007, 2066008, 2066009, 2066010, 2066011, 2066012, 2066013, 2066014, 2066015, 2066016
SM 4500 F-C-97	02/28/2019			03/06/2019 01:10	Dale L. Simmons	2066003
	02/28/2019			03/06/2019 01:15	Dale L. Simmons	2066004
	02/28/2019			03/06/2019 01:19	Dale L. Simmons	2066005
	02/28/2019			03/06/2019 01:23	Dale L. Simmons	2066006
	02/28/2019			03/06/2019 02:10	Dale L. Simmons	2066007
	02/28/2019			03/06/2019 02:15	Dale L. Simmons	2066008
	02/28/2019			03/06/2019 02:19	Dale L. Simmons	2066009
	02/28/2019			03/06/2019 02:24	Dale L. Simmons	2066010
	02/28/2019			03/06/2019 02:28	Dale L. Simmons	2066011
	02/28/2019			03/06/2019 02:32	Dale L. Simmons	2066012
	02/28/2019			03/06/2019 02:36	Dale L. Simmons	2066013
	02/28/2019			03/06/2019 02:41	Dale L. Simmons	2066014
	02/28/2019			03/06/2019 02:45	Dale L. Simmons	2066015
	02/28/2019			03/06/2019 02:49	Dale L. Simmons	2066016
SM 5310 B-00	02/28/2019			03/12/2019 06:06	Chelsea Hernandez	2066017
	02/28/2019			03/12/2019 06:19	Chelsea Hernandez	2066018

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 5310 B-00	02/28/2019			03/12/2019 06:34	Chelsea Hernandez	2066019
	02/28/2019			03/12/2019 06:49	Chelsea Hernandez	2066020
	02/28/2019			03/12/2019 07:50	Chelsea Hernandez	2066021
	02/28/2019			03/12/2019 08:03	Chelsea Hernandez	2066022
	02/28/2019			03/12/2019 08:18	Chelsea Hernandez	2066023
	02/28/2019			03/12/2019 08:34	Chelsea Hernandez	2066024
	02/28/2019			03/12/2019 09:02	Chelsea Hernandez	2066025
	02/28/2019			03/12/2019 09:15	Chelsea Hernandez	2066026
	02/28/2019			03/12/2019 09:30	Chelsea Hernandez	2066027
	02/28/2019			03/13/2019 02:29	Chelsea Hernandez	2066028
	02/28/2019			03/13/2019 02:42	Chelsea Hernandez	2066029
	02/28/2019			03/13/2019 02:55	Chelsea Hernandez	2066030