

Chemical Analysis Report

SO-DIST-2019-10-10-02

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

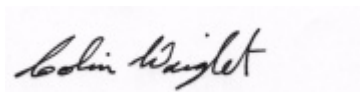
Event Description: **Charlotte Harbor**
Request ID: **RQ-2019-10-07-75**
Customer: **SO-DIST**
Project ID: **SMP**

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Certified by: Colin Wright, Program Administrator

Date Certified: 07-NOV-2019 11:23

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light gray rectangular 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 groups are included in this report: Metals and 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: MyakkaCutoff(Western)

Collection Date/Time: 10/09/2019 10:10

Field ID: G3SD0073

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2127068	EPA 180.1 Rev. 2.0	Turbidity	1.0		NTU	P372281	
	EPA 300.0	Bromide	40		mg Br/L	P372703	
	SM 2320 B-97	Total Alkalinity	108		mg CaCO3/L	P372648	
	SM 2540 D-97	TSS	3	U	mg/L	P372570	
	SM 4500 F-C-97	Fluoride	0.89		mg F/L	P372650	
2127071	EPA 350.1 Rev. 2.0	Ammonia-N	0.022		mg N/L	P372694	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.64		mg N/L	P372379	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P372725	
	EPA 365.1 Rev. 2.0	Total-P	0.20		mg P/L	P372402	MS
	SM 5310 B-00	Organic Carbon	11		mg C/L	P372779	
2127074	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.19		mg P/L	P372290	

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: Myakka Cutoff (Western)

Collection Date/Time: 10/09/2019 10:15

Field ID: G3SD0073_DUP

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2127069	EPA 180.1 Rev. 2.0	Turbidity	0.80		NTU	P372281	
	EPA 300.0	Bromide	41		mg Br/L	P372703	
	SM 2320 B-97	Total Alkalinity	108		mg CaCO3/L	P372648	
	SM 2540 D-97	TSS	3	U	mg/L	P372570	
	SM 4500 F-C-97	Fluoride	0.90		mg F/L	P372650	
2127072	EPA 350.1 Rev. 2.0	Ammonia-N	0.024		mg N/L	P372694	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.72		mg N/L	P372379	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P372725	
	EPA 365.1 Rev. 2.0	Total-P	0.20		mg P/L	P372404	
	SM 5310 B-00	Organic Carbon	11		mg C/L	P372779	
2127075	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.18		mg P/L	P372290	

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: TrailerParkCanal@Mouth

Collection Date/Time: 10/09/2019 10:30

Field ID: G3SD0072

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2127062	EPA 180.1 Rev. 2.0	Turbidity	0.85		NTU	P372281	
	SM 2320 B-97	Total Alkalinity	102		mg CaCO3/L	P372648	
	SM 2540 D-97	TSS	3	U	mg/L	P372570	
	SM 4500 F-C-97	Fluoride	0.82		mg F/L	P372650	
2127064	EPA 350.1 Rev. 2.0	Ammonia-N	0.034		mg N/L	P372690	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.66		mg N/L	P372379	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	I	mg N/L	P372724	
	EPA 365.1 Rev. 2.0	Total-P	0.22		mg P/L	P372402	MS
	SM 5310 B-00	Organic Carbon	12		mg C/L	P372779	
2127066	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.20		mg P/L	P372290	
2127092	EPA 200.7 Rev. 4.4	Iron	90	U	ug/L	P372426	
		Zinc	15	U	ug/L	P372426	
	EPA 200.8 Rev. 5.4	Arsenic	1.84		ug/L	P372426	
		Cadmium	0.080	U	ug/L	P372426	
		Chromium	4.0	U	ug/L	P372426	
		Copper	1.6	U	ug/L	P372426	
		Lead	2.0	U	ug/L	P372426	
		Nickel	5.0	U	ug/L	P372426	
		Silver	0.040	U	ug/L	P372426	

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: TrailerParkCanal@Mouth

Collection Date/Time: 10/09/2019 11:00

Field ID: FB_10092019

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2127063	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P372281	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P372639	
	SM 2540 D-97	TSS	2	U	mg/L	P372497	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P372642	
2127065	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P372692	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P372395	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P372442	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P372462	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P372572	
2127067	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P372288	
2127093	EPA 200.7 Rev. 4.4	Iron	30	U	ug/L	P372399	
		Zinc	5.0	U	ug/L	P372399	
	EPA 200.8 Rev. 5.4	Arsenic	0.050	U	ug/L	P372399	
		Cadmium	0.020	U	ug/L	P372399	
		Chromium	0.40	U	ug/L	P372399	
		Copper	0.40	U	ug/L	P372399	
		Lead	0.20	U	ug/L	P372399	
		Nickel	0.50	U	ug/L	P372399	
		Silver	0.010	U	ug/L	P372399	

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: Whidden Creek South Pt

Collection Date/Time: 10/09/2019 12:30

Field ID: G2SD0029

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2127070	EPA 180.1 Rev. 2.0	Turbidity	2.0		NTU	P372281	
	EPA 300.0	Bromide	61		mg Br/L	P372703	
	SM 2320 B-97	Total Alkalinity	134		mg CaCO3/L	P372648	
	SM 2540 D-97	TSS	7	I	mg/L	P372570	
	SM 4500 F-C-97	Fluoride	1.1		mg F/L	P372650	
2127073	EPA 350.1 Rev. 2.0	Ammonia-N	0.009		mg N/L	P372694	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.88		mg N/L	P372379	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P372725	
	EPA 365.1 Rev. 2.0	Total-P	0.059		mg P/L	P372404	
	SM 5310 B-00	Organic Carbon	9.4		mg C/L	P372779	
2127076	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.007	I	mg P/L	P372290	

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: P372281

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P372399

Component	Result	Code	Units
Iron	30	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P372426

Component	Result	Code	Units
Iron	30	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P372399

Component	Result	Code	Units
Arsenic	0.050	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Nickel	2.8		ug/L
Silver	0.010	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P372426

Component	Result	Code	Units
Arsenic	0.050	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Nickel	0.50	U	ug/L
Silver	0.010	U	ug/L

Reference Method: EPA 300.0
Batch ID: P372703

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372690

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372692

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372694

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P372379

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P372395

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P372442

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P372724

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P372725

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P372402

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P372404

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P372462

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P372288

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P372290

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

Reference Method: SM 2320 B-97
Batch ID: P372639

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

Reference Method: SM 2320 B-97
Batch ID: P372648

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

Reference Method: SM 2540 D-97
Batch ID: P372497

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P372570

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P372642

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P372650

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: P372572

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

Reference Method: SM 5310 B-00
Batch ID: P372779

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P372399

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Iron	99.4		P	85 - 115
Zinc	98.2		P	85 - 115

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P372426

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Iron	100		P	80 - 120
Zinc	97.8		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P372399

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	108		P	85 - 115
Cadmium	102		P	85 - 115
Chromium	99.1		P	85 - 115
Copper	106		P	85 - 115
Lead	102		P	85 - 115
Nickel	97.5		P	85 - 115
Silver	108		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P372426

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	91.5		P	85 - 115
Cadmium	91.4		P	85 - 115
Chromium	104		P	85 - 115
Copper	105		P	85 - 115
Lead	92.0		P	85 - 115
Nickel	93.9		P	85 - 115
Silver	92.6		P	85 - 115

Reference Method: EPA 300.0
Batch ID: P372703

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Bromide	98.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372690

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	98.1		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372692

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372694

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P372379

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P372395

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P372442

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: P372724

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	103		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P372725

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	103		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P372402

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	97.1		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P372404

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P372462

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	97.0		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P372288

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P372290

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

Reference Method: SM 2320 B-97
Batch ID: P372639

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	105		P	98 - 106

Reference Method: SM 2320 B-97
Batch ID: P372648

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	98 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P372642

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.1		P	92 - 103

Reference Method: SM 4500 F-C-97
Batch ID: P372650

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.6		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P372572

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	101		P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P372779

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	92.2		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P372399

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2126629	Iron	98.9	98.8	P/P	80 - 120
2126629	Zinc	99.6	98.3	P/P	80 - 120
2127179	Iron	98.8		P	80 - 120
2127179	Zinc	94.7		P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P372426

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2127371	Iron	96.4	97.6	P/P	70 - 130
2127371	Zinc	101	100	P/P	70 - 130

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P372399

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2126629	Arsenic	109	109	P/P	80 - 120
2126629	Cadmium	104	104	P/P	80 - 120
2126629	Chromium	102	101	P/P	80 - 120
2126629	Copper	107	107	P/P	80 - 120
2126629	Lead	105	103	P/P	80 - 120
2126629	Nickel	98.1	100	P/P	80 - 120
2126629	Silver	108	106	P/P	80 - 120
2127179	Arsenic	110		P	80 - 120
2127179	Cadmium	106		P	80 - 120
2127179	Chromium	100		P	80 - 120
2127179	Copper	102		P	80 - 120
2127179	Lead	103		P	80 - 120
2127179	Nickel	94.7		P	80 - 120
2127179	Silver	108		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P372426

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2127371	Arsenic	103	107	P/P	70 - 130
2127371	Cadmium	86.8	89.5	P/P	70 - 130
2127371	Chromium	91.5	95.3	P/P	70 - 130
2127371	Copper	97.3	98.6	P/P	70 - 130
2127371	Lead	100	104	P/P	70 - 130
2127371	Nickel	106	109	P/P	70 - 130
2127371	Silver	86.0	88.3	P/P	70 - 130

Reference Method: EPA 300.0
Batch ID: P372703

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2127309	Bromide	95.7	95.8	P/P	90 - 110
2127737	Bromide	96.1		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372690

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2126804	Ammonia-N	105	106	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372692

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2127023	Ammonia-N	100	100	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372694

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2127073	Ammonia-N	107	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P372379

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2126808	Kjeldahl Nitrogen	102	106	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P372395

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2127132	Kjeldahl Nitrogen	102	98.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P372442

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2126913	NO2NO3-N	100	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P372724

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2126804	NO2NO3-N	106	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P372725

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2127073	NO2NO3-N	103	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P372402

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2126805	Total-P	88.6	88.6	F/F	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P372404

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2127073	Total-P	94.4	93.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P372462

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2126935	Total-P	93.8	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P372288

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2127021	O-Phosphate-P	100	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P372290

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2126973	O-Phosphate-P	97.8	99.4	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P372642

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2126771	Fluoride	94.5	93.4	P/P	89 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P372650

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2125353	Fluoride	95.2	95.9	P/P	89 - 106

Reference Method: SM 5310 B-00
Batch ID: P372572

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2126911	Organic Carbon	97.7	103	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P372779

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2126971	Organic Carbon	92.4	94.5	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P372281

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2126966	Turbidity	3.11	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P372399

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2126629	Iron	0.0686	Spike	P	0 - 20
2126629	Zinc	1.35	Spike	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P372426

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2127371	Iron	1.19	Spike	P	0 - 20
2127371	Zinc	0.563	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P372399

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2126629	Arsenic	0.0246	Spike	P	0 - 20
2126629	Cadmium	0.202	Spike	P	0 - 20
2126629	Chromium	1.31	Spike	P	0 - 20
2126629	Copper	0.356	Spike	P	0 - 20
2126629	Lead	1.50	Spike	P	0 - 20
2126629	Nickel	2.06	Spike	P	0 - 20
2126629	Silver	2.04	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P372426

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2127371	Arsenic	3.85	Spike	P	0 - 20
2127371	Cadmium	2.99	Spike	P	0 - 20
2127371	Chromium	4.09	Spike	P	0 - 20
2127371	Copper	1.25	Spike	P	0 - 20
2127371	Lead	3.44	Spike	P	0 - 20
2127371	Nickel	2.40	Spike	P	0 - 20
2127371	Silver	2.63	Spike	P	0 - 20

Reference Method: EPA 300.0
Batch ID: P372703

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2127309	Bromide	0.0401	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372690

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2126804	Ammonia-N	0.902	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372692

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2127023	Ammonia-N	0.326	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372694

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2127073	Ammonia-N	3.31	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P372379

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2126808	Kjeldahl Nitrogen	3.31	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P372395

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2127132	Kjeldahl Nitrogen	2.46	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P372442

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2126913	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P372724

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2126804	NO2NO3-N	0.952	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P372725

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2127073	NO2NO3-N	0.0	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P372402

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2126805	Total-P	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P372404

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2127073	Total-P	0.448	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P372462

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2126935	Total-P	6.51	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P372288

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2127021	O-Phosphate-P	1.39	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P372290

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2126973	O-Phosphate-P	1.62	Spike	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P372639

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2126771	Total Alkalinity	0.605	Sample	P	0 - 2.8

Reference Method: SM 2320 B-97
Batch ID: P372648

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2127265	Total Alkalinity	0.262	Sample	P	0 - 2.8

Reference Method: SM 4500 F-C-97
Batch ID: P372642

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2126771	Fluoride	0.958	Spike	P	0 - 2.5

Quality Assurance Report Precision

Reference Method: SM 4500 F-C-97
Batch ID: P372650

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2125353	Fluoride	0.480	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
Batch ID: P372572

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2126911	Organic Carbon	4.07	Spike	P	0 - 20

Reference Method: SM 5310 B-00
Batch ID: P372779

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2126971	Organic Carbon	2.02	Spike	P	0 - 20

* Sample, spike and/or laboratory control sample precision (LCS) is reported.

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A94862

Included Lab Sample IDs: 2127062, 2127063, 2127068, 2127069, 2127070

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	98.0	98.5	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A94863

Included Lab Sample IDs: 2127066, 2127067, 2127074, 2127075, 2127076

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	99.7	P/P	90 - 110
O-Phosphate-P	101	99.0	P/P	90 - 110
O-Phosphate-P	99.7	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A94918

Included Lab Sample IDs: 2127065

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A94968

Included Lab Sample IDs: 2127092, 2127093

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Iron	100	101	P/P	90 - 110
Iron	102	101	P/P	95 - 105
Zinc	101	99.7	P/P	90 - 110
Zinc	102	102	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A94969

Included Lab Sample IDs: 2127064, 2127071, 2127072

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A94982

Included Lab Sample IDs: 2127064, 2127065, 2127071, 2127072, 2127073

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	103	98.3	P/P	90 - 110
Kjeldahl Nitrogen	98.3	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A94995

Included Lab Sample IDs: 2127064, 2127071, 2127072, 2127073

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

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-00
Run ID: A94999
Included Lab Sample IDs: 2127065

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	94.8	94.1	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A95002
Included Lab Sample IDs: 2127073

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A95020
Included Lab Sample IDs: 2127065

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

Reference Method: SM 2320 B-97
Run ID: A95021
Included Lab Sample IDs: 2127063

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

Reference Method: SM 4500 F-C-97
Run ID: A95021
Included Lab Sample IDs: 2127063

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

Reference Method: SM 2320 B-97
Run ID: A95027
Included Lab Sample IDs: 2127062, 2127068, 2127069, 2127070

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	105	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A95027
Included Lab Sample IDs: 2127062, 2127068, 2127069, 2127070

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

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A95045
Included Lab Sample IDs: 2127064, 2127065, 2127071, 2127072, 2127073

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A95045

Included Lab Sample IDs: 2127064, 2127065, 2127071, 2127072, 2127073

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

Reference Method: EPA 300.0

Run ID: A95051

Included Lab Sample IDs: 2127068, 2127069, 2127070

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

Reference Method: SM 5310 B-00

Run ID: A95081

Included Lab Sample IDs: 2127064, 2127071, 2127072, 2127073

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.8	96.0	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A95119

Included Lab Sample IDs: 2127093

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	107	107	P/P	90 - 110
Cadmium	103	103	P/P	90 - 110
Chromium	98.7	99.8	P/P	90 - 110
Copper	105	105	P/P	90 - 110
Lead	98.8	99.4	P/P	90 - 110
Silver	103	103	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A95161

Included Lab Sample IDs: 2127093

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Nickel	97.1	97.6	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A95196

Included Lab Sample IDs: 2127092

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	96.3	95.9	P/P	90 - 110
Cadmium	92.6	92.6	P/P	90 - 110
Lead	93.0	92.7	P/P	90 - 110
Silver	93.4	93.3	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A95431

Included Lab Sample IDs: 2127092

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chromium	104	99.7	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A95431

Included Lab Sample IDs: 2127092

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Nickel	96.1	101	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A95532

Included Lab Sample IDs: 2127092

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Copper	100	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			Precision SMP	MS
			LCS				
EPA 180.1 Rev. 2.0	Turbidity					3.11	
EPA 200.7 Rev. 4.4	Iron	99.4	98.9	98.8	98.8		0.0686
	Iron	100	96.4	97.6			1.19
	Zinc	98.2	99.6	98.3	94.7		1.35
	Zinc	97.8	101	100			0.563
EPA 200.8 Rev. 5.4	Arsenic	108	109	109	110		0.0246
	Arsenic	91.5	103	107			3.85
	Cadmium	102	104	104	106		0.202
	Cadmium	91.4	86.8	89.5			2.99
	Chromium	99.1	102	101	100		1.31
	Chromium	104	91.5	95.3			4.09
	Copper	106	107	107	102		0.356
	Copper	105	97.3	98.6			1.25
	Lead	102	105	103	103		1.50
	Lead	92.0	100	104			3.44
	Nickel	97.5	98.1	100	94.7		2.06
	Nickel	93.9	106	109			2.40
	Silver	108	108	106	108		2.04
	Silver	92.6	86.0	88.3			2.63
EPA 300.0	Bromide	98.4	95.7	95.8	96.1		0.0401
EPA 350.1 Rev. 2.0	Ammonia-N	98.1	105	106			0.902
	Ammonia-N	99.1	100	100			0.326
	Ammonia-N	99.0	107	103			3.31
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	97.6	102	106			3.31
	Kjeldahl Nitrogen	100	102	98.6			2.46
EPA 353.2 Rev. 2.0	NO2NO3-N	100	100	100			0.0
	NO2NO3-N	103	106	104			0.952
	NO2NO3-N	103	103	103			0.0
EPA 365.1 Rev. 2.0	Total-P	97.1	88.6	88.6			0.0
	Total-P	99.6	94.4	93.9			0.448
	Total-P	97.0	93.8	100			6.51
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	104	100	102			1.39
	O-Phosphate-P	103	97.8	99.4			1.62
SM 2320 B-97	Total Alkalinity	105				0.605	
	Total Alkalinity	103				0.262	
SM 4500 F-C-97	Fluoride	96.1	94.5	93.4			0.958
	Fluoride	97.6	95.2	95.9			0.480
SM 5310 B-00	Organic Carbon	101	97.7	103			4.07
	Organic Carbon	92.2	92.4	94.5			2.02

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2127062, 2127063, 2127068, 2127069, 2127070
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2127092, 2127093
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2127092, 2127093
EPA 300.0 / E31780	Bromide in aqueous matrices	2127068, 2127069, 2127070
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2127064, 2127065, 2127071, 2127072, 2127073
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2127064, 2127065, 2127071, 2127072, 2127073

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2127064, 2127065, 2127071, 2127072, 2127073
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2127064, 2127065, 2127071, 2127072, 2127073
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2127066, 2127067, 2127074, 2127075, 2127076
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2127062, 2127063, 2127068, 2127069, 2127070
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2127062, 2127063, 2127068, 2127069, 2127070
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2127062, 2127063, 2127068, 2127069, 2127070
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2127064, 2127065, 2127071, 2127072, 2127073

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	10/10/2019			10/10/2019 14:53	Rosalyn Ballman	2127062, 2127063, 2127068, 2127069, 2127070
EPA 200.7 Rev. 4.4	10/10/2019	10/14/2019 15:00	Elliott D. Healy	10/15/2019 12:57	Betina Topolski	2127093
	10/10/2019	10/14/2019 16:55	Elliott D. Healy	10/15/2019 16:12	Betina Topolski	2127092
EPA 200.8 Rev. 5.4	10/10/2019	10/14/2019 15:00	Elliott D. Healy	10/22/2019 00:08	Justin Cutchin	2127093
	10/10/2019	10/14/2019 15:00	Elliott D. Healy	10/22/2019 22:04	Justin Cutchin	2127093
	10/10/2019	10/14/2019 16:55	Elliott D. Healy	10/23/2019 21:14	Justin Cutchin	2127092
	10/10/2019	10/14/2019 16:55	Elliott D. Healy	10/23/2019 23:41	Justin Cutchin	2127092
	10/10/2019	10/14/2019 16:55	Elliott D. Healy	11/02/2019 05:20	Justin Cutchin	2127092
	10/10/2019	10/14/2019 16:55	Elliott D. Healy	11/06/2019 14:18	Robert K Palmer	2127092
EPA 300.0	10/10/2019			10/17/2019 19:38	Lipi Saha	2127068
	10/10/2019			10/17/2019 19:56	Lipi Saha	2127069
	10/10/2019			10/17/2019 20:13	Lipi Saha	2127070
EPA 350.1 Rev. 2.0	10/10/2019			10/17/2019 11:36	Ping Hua	2127064
	10/10/2019			10/17/2019 12:36	Ping Hua	2127065
	10/10/2019			10/17/2019 13:24	Ping Hua	2127071
	10/10/2019			10/17/2019 13:26	Ping Hua	2127072
	10/10/2019			10/17/2019 13:27	Ping Hua	2127073
EPA 351.2 Rev. 2.0	10/10/2019	10/14/2019 11:32	Sima Feizi	10/15/2019 16:43	Jhamieka S. Greenwood	2127064
	10/10/2019	10/14/2019 11:32	Sima Feizi	10/15/2019 16:44	Jhamieka S. Greenwood	2127071
	10/10/2019	10/14/2019 11:32	Sima Feizi	10/15/2019 16:46	Jhamieka S. Greenwood	2127072
	10/10/2019	10/14/2019 11:32	Sima Feizi	10/15/2019 16:47	Jhamieka S. Greenwood	2127073
	10/10/2019	10/14/2019 11:32	Sima Feizi	10/15/2019 17:07	Jhamieka S. Greenwood	2127065
EPA 353.2 Rev. 2.0	10/10/2019			10/14/2019 11:17	Beverly Y. Sanders	2127065
	10/10/2019			10/16/2019 10:48	Beverly Y. Sanders	2127064
	10/10/2019			10/16/2019 10:55	Beverly Y. Sanders	2127073
	10/10/2019			10/16/2019 11:01	Beverly Y. Sanders	2127071
	10/10/2019			10/16/2019 11:02	Beverly Y. Sanders	2127072
EPA 365.1 Rev. 2.0	10/10/2019	10/14/2019 14:50	Lipi Saha	10/15/2019 12:54	Rosalyn Ballman	2127064
	10/10/2019	10/14/2019 14:50	Lipi Saha	10/15/2019 12:55	Rosalyn Ballman	2127071
	10/10/2019	10/14/2019 14:50	Lipi Saha	10/15/2019 13:22	Rosalyn Ballman	2127072
	10/10/2019	10/14/2019 14:50	Lipi Saha	10/15/2019 16:48	Rosalyn Ballman	2127073
	10/10/2019	10/15/2019 13:09	Lipi Saha	10/16/2019 12:26	Rosalyn Ballman	2127065
EPA 365.1 Rev. 2.0 dissolved	10/10/2019			10/10/2019 16:31	Julia Storbeck	2127067
	10/10/2019			10/10/2019 16:35	Julia Storbeck	2127074
	10/10/2019			10/10/2019 16:36	Julia Storbeck	2127075
	10/10/2019			10/10/2019 16:46	Julia Storbeck	2127066
	10/10/2019			10/10/2019 16:59	Julia Storbeck	2127076
SM 2320 B-97	10/10/2019			10/15/2019 11:21	Dale L. Simmons	2127063
	10/10/2019			10/16/2019 06:38	Dale L. Simmons	2127062

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2320 B-97	10/10/2019			10/16/2019 06:51	Dale L. Simmons	2127068
	10/10/2019			10/16/2019 07:04	Dale L. Simmons	2127069
	10/10/2019			10/16/2019 07:17	Dale L. Simmons	2127070
SM 2540 D-97	10/10/2019			10/11/2019 16:16	Rosalyn Ballman	2127063
	10/10/2019			10/15/2019 14:00	Blanca Fach	2127062, 2127068, 2127069, 2127070
SM 4500 F-C-97	10/10/2019			10/15/2019 11:21	Dale L. Simmons	2127063
	10/10/2019			10/16/2019 02:44	Dale L. Simmons	2127062
	10/10/2019			10/16/2019 02:48	Dale L. Simmons	2127068
	10/10/2019			10/16/2019 02:52	Dale L. Simmons	2127069
	10/10/2019			10/16/2019 02:56	Dale L. Simmons	2127070
SM 5310 B-00	10/10/2019			10/16/2019 03:17	Madeline Funaro	2127065
	10/10/2019			10/18/2019 11:19	Madeline Funaro	2127064
	10/10/2019			10/18/2019 11:46	Madeline Funaro	2127071
	10/10/2019			10/18/2019 12:00	Madeline Funaro	2127072
	10/10/2019			10/18/2019 12:12	Madeline Funaro	2127073