

Chemical Analysis Report

TLH-ROC-2021-11-22-02

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

Event Description: **East Bay, Gully Branch**
Request ID: **RQ-2021-10-11-59**
Customer: **TLH-ROC**
Project ID: **SMP**

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Date Certified: 09-DEC-2021 11:02



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: East Bay (Apalachicola)

Collection Date/Time: 11/22/2021 11:00

Field ID: G2TLHR0027

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2290934	EPA 180.1 Rev. 2.0	Turbidity	5.6		NTU	P406720	
	SM 2320 B-2011	Total Alkalinity	60		mg CaCO3/L	P406755	
	SM 2540 D-2011	TSS	4	I	mg/L	P407051	
	SM 4500 F-C-2011	Fluoride	0.22		mg F/L	P406757	
2290935	EPA 350.1 Rev. 2.0	Ammonia-N	0.007		mg N/L	P406853	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.31	I	mg N/L	P406868	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.42		mg N/L	P406678	
	EPA 365.1 Rev. 2.0	Total-P	0.021		mg P/L	P406701	
	SM 5310 B-2011	Organic Carbon	3.8		mg C/L	P406794	
2290936	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P406713	
2290941	EPA 200.7 Rev. 4.4	Calcium	68.2		mg/L	P406980	
		Iron	330	I	ug/L	P406980	
		Magnesium	171		mg/L	P406980	
		Manganese	42		ug/L	P406980	
		Zinc	15	U	ug/L	P406980	
	EPA 200.8 Rev. 5.4	Aluminum	252		ug/L	P406980	
		Antimony	0.20	U	ug/L	P406980	
		Arsenic	0.57	I	ug/L	P406980	
		Beryllium	0.040	U	ug/L	P406980	
		Cadmium	0.16	I	ug/L	P406980	
		Chromium	1.6	U	ug/L	P406980	
		Copper	1.6	U	ug/L	P406980	
		Lead	0.80	U	ug/L	P406980	
		Nickel	2.0	U	ug/L	P406980	
		Selenium	0.80	U	ug/L	P406980	
		Silver	0.040	U	ug/L	P406980	
		Thallium	0.40	U	ug/L	P406980	

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for magnesium are unavailable because of high analyte concentration in the QC sample.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P406720

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P406980

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Manganese	1.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P406980

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Beryllium	0.010	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
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P406853

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P406868

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P406678

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P406701

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 dissolved
Batch ID: P406713

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

Reference Method: SM 2320 B-2011
Batch ID: P406755

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

Reference Method: SM 2540 D-2011
Batch ID: P407051

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P406757

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P406794

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: P406980

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	102		P	85 - 115
Iron	98.5		P	85 - 115
Magnesium	103		P	85 - 115
Manganese	96.3		P	85 - 115
Zinc	95.9		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P406980

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	100		P	85 - 115
Antimony	100		P	85 - 115
Arsenic	98.1		P	85 - 115
Beryllium	93.2		P	85 - 115
Cadmium	101		P	85 - 115
Chromium	99.7		P	85 - 115
Copper	96.7		P	85 - 115
Lead	97.8		P	85 - 115
Nickel	97.7		P	85 - 115
Selenium	95.3		P	85 - 115
Silver	99.2		P	85 - 115
Thallium	104		P	85 - 115

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P406853

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	96.8		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P406868

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P406678

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P406701

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P406713

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P406755

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.7		P	94 - 106

Reference Method: SM 4500 F-C-2011
Batch ID: P406757

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	101		P	93 - 104

Reference Method: SM 5310 B-2011
Batch ID: P406794

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	105		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P406980

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2290941	Calcium	95.4		P	70 - 130
2290941	Iron	97.1	94.4	P/P	70 - 130
2290941	Manganese	97.9	95.6	P/P	70 - 130
2290941	Zinc	97.9	95.3	P/P	70 - 130

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P406980

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2290941	Aluminum	102	101	P/P	70 - 130
2290941	Antimony	104	102	P/P	70 - 130
2290941	Arsenic	111	109	P/P	70 - 130
2290941	Beryllium	102	102	P/P	70 - 130
2290941	Cadmium	102	100	P/P	70 - 130
2290941	Chromium	99.2	98.1	P/P	70 - 130
2290941	Copper	101	100	P/P	70 - 130
2290941	Lead	104	104	P/P	70 - 130
2290941	Nickel	104	103	P/P	70 - 130
2290941	Selenium	96.9	95.2	P/P	70 - 130
2290941	Silver	93.9	93.9	P/P	70 - 130
2290941	Thallium	109	109	P/P	70 - 130

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P406853

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2290935	Ammonia-N	95.8	95.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P406868

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2290863	Kjeldahl Nitrogen	97.4	99.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P406678

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2290865	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P406701

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2290866	Total-P	92.1	94.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P406713

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2290936	O-Phosphate-P	101	99.5	P/P	90 - 110

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: SM 4500 F-C-2011
Batch ID: P406757

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2290294	Fluoride	99.9	99.9	P/P	92 - 107

Reference Method: SM 5310 B-2011
Batch ID: P406794

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2290925	Organic Carbon	99.4		P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P406720

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2290916	Turbidity	5.05	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P406980

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2290941	Calcium	2.19	Spike	P	0 - 20
2290941	Iron	2.62	Spike	P	0 - 20
2290941	Magnesium	2.11	Spike	P	0 - 20
2290941	Manganese	1.98	Spike	P	0 - 20
2290941	Zinc	2.76	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P406980

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2290941	Aluminum	0.829	Spike	P	0 - 20
2290941	Antimony	1.05	Spike	P	0 - 20
2290941	Arsenic	0.984	Spike	P	0 - 20
2290941	Beryllium	0.162	Spike	P	0 - 20
2290941	Cadmium	1.51	Spike	P	0 - 20
2290941	Chromium	1.08	Spike	P	0 - 20
2290941	Copper	1.45	Spike	P	0 - 20
2290941	Lead	0.760	Spike	P	0 - 20
2290941	Nickel	1.48	Spike	P	0 - 20
2290941	Selenium	1.70	Spike	P	0 - 20
2290941	Silver	0.0688	Spike	P	0 - 20
2290941	Thallium	0.682	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P406853

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2290935	Ammonia-N	0.730	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P406868

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2290863	Kjeldahl Nitrogen	1.98	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P406678

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2290865	NO2NO3-N	0.0	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P406701

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2290866	Total-P	2.12	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P406713

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2290936	O-Phosphate-P	1.89	Spike	P	0 - 20

Reference Method: SM 2320 B-2011

Batch ID: P406755

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2290294	Total Alkalinity	1.80	Sample	P	0 - 5.2

Reference Method: SM 4500 F-C-2011

Batch ID: P406757

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2290294	Fluoride	0.0	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011

Batch ID: P406794

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2290925	Organic Carbon	5.03	Sample	P	0 - 20

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A109045

Included Lab Sample IDs: 2290935

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A109057

Included Lab Sample IDs: 2290936

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

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A109065

Included Lab Sample IDs: 2290934

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

Reference Method: SM 2320 B-2011

Run ID: A109087

Included Lab Sample IDs: 2290934

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	96.7	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A109087

Included Lab Sample IDs: 2290934

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

Reference Method: SM 5310 B-2011

Run ID: A109117

Included Lab Sample IDs: 2290935

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.1	98.4	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A109129

Included Lab Sample IDs: 2290935

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.3	95.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A109171

Included Lab Sample IDs: 2290935

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A109193

Included Lab Sample IDs: 2290935

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.5	97.7	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A109201

Included Lab Sample IDs: 2290941

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	97.0	97.1	P/P	90 - 110
Antimony	91.8	92.7	P/P	90 - 110
Arsenic	96.2	95.1	P/P	90 - 110
Beryllium	92.0	91.7	P/P	90 - 110
Cadmium	96.2	95.8	P/P	90 - 110
Chromium	92.2	92.5	P/P	90 - 110
Copper	92.6	92.6	P/P	90 - 110
Lead	91.6	91.9	P/P	90 - 110
Nickel	92.9	93.5	P/P	90 - 110
Selenium	93.6	93.4	P/P	90 - 110
Silver	93.4	95.0	P/P	90 - 110
Thallium	94.7	95.2	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A109280

Included Lab Sample IDs: 2290941

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	97.3	96.9	P/P	95 - 105
Iron	99.3	99.4	P/P	95 - 105
Magnesium	98.6	98.3	P/P	95 - 105
Manganese	102	102	P/P	95 - 105
Zinc	99.2	98.1	P/P	95 - 105

* Pass/Fail determinations are made for each bracketing calibration verification check.

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity					5.05	
EPA 200.7 Rev. 4.4	Calcium	102	95.4				2.19
	Iron	98.5	97.1	94.4			2.62
	Magnesium	103					2.11
	Manganese	96.3	97.9	95.6			1.98
	Zinc	95.9	97.9	95.3			2.76
EPA 200.8 Rev. 5.4	Aluminum	100	102	101			0.829
	Antimony	100	104	102			1.05
	Arsenic	98.1	111	109			0.984
	Beryllium	93.2	102	102			0.162
	Cadmium	101	102	100			1.51
	Chromium	99.7	99.2	98.1			1.08
	Copper	96.7	101	100			1.45
	Lead	97.8	104	104			0.760
	Nickel	97.7	104	103			1.48
	Selenium	95.3	96.9	95.2			1.70
	Silver	99.2	93.9	93.9			0.0688
	Thallium	104	109	109			0.682
EPA 350.1 Rev. 2.0	Ammonia-N	96.8	95.8	95.0			0.730
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	98.6	97.4	99.6			1.98
EPA 353.2 Rev. 2.0	NO2NO3-N	102	102	102			0.0
EPA 365.1 Rev. 2.0	Total-P	104	92.1	94.2			2.12
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101	101	99.5			1.89
SM 2320 B-2011	Total Alkalinity	99.7				1.80	
SM 4500 F-C-2011	Fluoride	101	99.9	99.9			0.0
SM 5310 B-2011	Organic Carbon	105	99.4			5.03	

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2290934
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2290941
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2290941
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2290935
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2290935
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2290935
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2290935
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2290936
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2290934
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2290934
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2290934
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2290935

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	11/22/2021			11/23/2021 16:13	Khloe J Berg	2290934
EPA 200.7 Rev. 4.4	11/22/2021	12/03/2021 10:15	Vijayalakshmi Reddy	12/08/2021 13:08	Josef B Mick	2290941
EPA 200.8 Rev. 5.4	11/22/2021	12/03/2021 10:15	Vijayalakshmi Reddy	12/03/2021 22:50	Alexander Thompson	2290941
EPA 350.1 Rev. 2.0	11/22/2021			11/30/2021 14:42	Ping Hua	2290935
EPA 351.2 Rev. 2.0	11/22/2021	12/01/2021 11:50	Benjamin T. Nordmann	12/03/2021 10:59	Alexandra J Mattheus	2290935
EPA 353.2 Rev. 2.0	11/22/2021			11/23/2021 09:55	Beverly Y. Sanders	2290935
EPA 365.1 Rev. 2.0	11/22/2021	11/24/2021 15:46	Simonne.V. Calhoun	12/02/2021 12:05	Shengyu Ding	2290935
EPA 365.1 Rev. 2.0 dissolved	11/22/2021			11/23/2021 14:59	James L Waggerby	2290936
SM 2320 B-2011	11/22/2021			11/24/2021 00:50	Dale L. Simmons	2290934
SM 2540 D-2011	11/22/2021			11/24/2021 14:26	Yijie Li	2290934
SM 4500 F-C-2011	11/22/2021			11/24/2021 00:50	Dale L. Simmons	2290934
SM 5310 B-2011	11/22/2021			11/27/2021 06:52	Touraj Touran	2290935