Chemical Analysis Report

NW-DIST-2022-02-25-01

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

Event Description: **Hogtown Bayou Run**
Request ID: **RQ-2022-02-21-62**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
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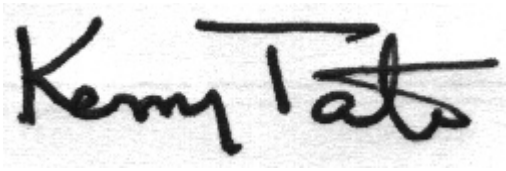
Date Certified: 23-MAR-2022 11:38



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: Buck Bayou Center **Collection Date/Time: 02/24/2022 10:30**

Field ID: G3NW0233 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2308128	EPA 180.1 Rev. 2.0	Turbidity	1.7		NTU	P410381	
	SM 2320 B-2011	Total Alkalinity	80		mg CaCO3/L	P410711	
	SM 2540 D-2011	TSS	8	I	mg/L	P410901	
	SM 4500 F-C-2011	Fluoride	0.73		mg F/L	P410715	
2308134	EPA 350.1 Rev. 2.0	Ammonia-N	0.007	Y	mg N/L	P410630	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.23	IYJ	mg N/L	P410668	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.006	IY	mg N/L	P410827	
	EPA 365.1 Rev. 2.0	Total-P	0.013	Y	mg P/L	P410484	
	SM 5310 B-2011	Organic Carbon	2.9	Y	mg C/L	P410861	
2308140	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P410375	

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 350.1 Rev. 2.0: Sample was left out at room temperature overnight, should be stored below 6 degC.
EPA 351.2 Rev. 2.0: Sample was left out at room temperature overnight, should be stored below 6 degC. Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 353.2 Rev. 2.0: Sample was left out at room temperature overnight, should be stored below 6 degC.
EPA 365.1 Rev. 2.0: Total-P: Sample was left out at room temperature overnight, should be stored below 6 degC.
SM 5310 B-2011: Sample was left out at room temperature overnight, should be stored below 6 degC.

Sample Location: Hewett Bayou Center **Collection Date/Time: 02/24/2022 11:30**

Field ID: G3NW0218 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2308129	EPA 180.1 Rev. 2.0	Turbidity	1.8	A	NTU	P410381	
	SM 2320 B-2011	Total Alkalinity	81		mg CaCO3/L	P410711	
	SM 2540 D-2011	TSS	10	I	mg/L	P410901	
	SM 4500 F-C-2011	Fluoride	0.77		mg F/L	P410715	
2308135	EPA 350.1 Rev. 2.0	Ammonia-N	0.005	I Y	mg N/L	P410630	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.27	I Y	mg N/L	P410764	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	UY	mg N/L	P410827	
	EPA 365.1 Rev. 2.0	Total-P	0.012	Y	mg P/L	P410484	
	SM 5310 B-2011	Organic Carbon	3.0	I Y	mg C/L	P411060	
2308141	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P410375	

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 350.1 Rev. 2.0: Sample was left out at room temperature overnight, should be stored below 6 degC.
EPA 351.2 Rev. 2.0: Sample was left out at room temperature overnight, should be stored below 6 degC.
EPA 353.2 Rev. 2.0: Sample was left out at room temperature overnight, should be stored below 6 degC.
EPA 365.1 Rev. 2.0: Total-P: Sample was left out at room temperature overnight, should be stored below 6 degC.
SM 5310 B-2011: Sample was left out at room temperature overnight, should be stored below 6 degC.

Sample Location: Mack Bayou Center **Collection Date/Time: 02/24/2022 10:55**

Field ID: G3NW0185 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2308130	EPA 180.1 Rev. 2.0	Turbidity	2.0		NTU	P410381	
	SM 2320 B-2011	Total Alkalinity	81		mg CaCO3/L	P410711	
	SM 2540 D-2011	TSS	8	I	mg/L	P410901	
	SM 4500 F-C-2011	Fluoride	0.73		mg F/L	P410715	
2308136	EPA 350.1 Rev. 2.0	Ammonia-N	0.005	Y	mg N/L	P410630	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.28	I Y	mg N/L	P410668	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	I Y	mg N/L	P410827	
	EPA 365.1 Rev. 2.0	Total-P	0.017	Y	mg P/L	P410484	
	SM 5310 B-2011	Organic Carbon	2.7	Y	mg C/L	P410861	
2308142	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P410375	

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 350.1 Rev. 2.0: Sample was left out at room temperature overnight, should be stored below 6 degC.
EPA 351.2 Rev. 2.0: Sample was left out at room temperature overnight, should be stored below 6 degC.
EPA 353.2 Rev. 2.0: Sample was left out at room temperature overnight, should be stored below 6 degC.
EPA 365.1 Rev. 2.0: Total-P: Sample was left out at room temperature overnight, should be stored below 6 degC.
SM 5310 B-2011: Sample was left out at room temperature overnight, should be stored below 6 degC.

Sample Location: Mussett Bayou Center **Collection Date/Time: 02/24/2022 11:50**

Field ID: G3NW0234 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2308131	EPA 180.1 Rev. 2.0	Turbidity	7.2		NTU	P410381	
	SM 2320 B-2011	Total Alkalinity	83		mg CaCO3/L	P410711	
	SM 2540 D-2011	TSS	23		mg/L	P410901	
	SM 4500 F-C-2011	Fluoride	0.78		mg F/L	P410715	
2308137	EPA 350.1 Rev. 2.0	Ammonia-N	0.015	Y	mg N/L	P410630	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.34	I Y	mg N/L	P410764	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.016	Y	mg N/L	P410827	
	EPA 365.1 Rev. 2.0	Total-P	0.023	Y	mg P/L	P410484	
	SM 5310 B-2011	Organic Carbon	3.5	I Y	mg C/L	P411060	
2308143	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P410375	

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 350.1 Rev. 2.0: Sample was left out at room temperature overnight, should be stored below 6 degC.
EPA 351.2 Rev. 2.0: Sample was left out at room temperature overnight, should be stored below 6 degC.
EPA 353.2 Rev. 2.0: Sample was left out at room temperature overnight, should be stored below 6 degC.
EPA 365.1 Rev. 2.0: Total-P: Sample was left out at room temperature overnight, should be stored below 6 degC.
SM 5310 B-2011: Sample was left out at room temperature overnight, should be stored below 6 degC.

Sample Location: Churchill Bayou Center **Collection Date/Time: 02/24/2022 12:15**

Field ID: G3NW0235 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2308132	EPA 180.1 Rev. 2.0	Turbidity	5.9		NTU	P410381	
	SM 2320 B-2011	Total Alkalinity	81		mg CaCO3/L	P410711	
	SM 2540 D-2011	TSS	18		mg/L	P410901	
	SM 4500 F-C-2011	Fluoride	0.76		mg F/L	P410715	
2308138	EPA 350.1 Rev. 2.0	Ammonia-N	0.028	Y	mg N/L	P410630	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.31	I Y	mg N/L	P410480	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.013	Y	mg N/L	P410827	
	EPA 365.1 Rev. 2.0	Total-P	0.019	Y	mg P/L	P411138	
	SM 5310 B-2011	Organic Carbon	4.2	Y	mg C/L	P411060	
2308144	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P410375	

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 350.1 Rev. 2.0: Sample was left out at room temperature overnight, should be stored below 6 degC.
EPA 351.2 Rev. 2.0: Sample was left out at room temperature overnight, should be stored below 6 degC.
EPA 353.2 Rev. 2.0: Sample was left out at room temperature overnight, should be stored below 6 degC.
EPA 365.1 Rev. 2.0: Total-P: Sample was left out at room temperature overnight, should be stored below 6 degC.
SM 5310 B-2011: Sample was left out at room temperature overnight, should be stored below 6 degC.

Sample Location: Hogtown Bayou at Cessna Park **Collection Date/Time: 02/24/2022 12:30**

Field ID: G3NW0152 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2308133	EPA 180.1 Rev. 2.0	Turbidity	2.7		NTU	P410381	
	SM 2320 B-2011	Total Alkalinity	85		mg CaCO3/L	P410711	
	SM 2540 D-2011	TSS	4	I A	mg/L	P410901	
	SM 4500 F-C-2011	Fluoride	0.81		mg F/L	P410715	
2308139	EPA 350.1 Rev. 2.0	Ammonia-N	0.022	Y	mg N/L	P410630	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.31	I Y	mg N/L	P410480	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.014	Y	mg N/L	P410827	
	EPA 365.1 Rev. 2.0	Total-P	0.021	Y	mg P/L	P411138	
	SM 5310 B-2011	Organic Carbon	3.6	I Y	mg C/L	P411060	
2308145	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P410375	

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 350.1 Rev. 2.0: Sample was left out at room temperature overnight, should be stored below 6 degC.
EPA 351.2 Rev. 2.0: Sample was left out at room temperature overnight, should be stored below 6 degC.
EPA 353.2 Rev. 2.0: Sample was left out at room temperature overnight, should be stored below 6 degC.
EPA 365.1 Rev. 2.0: Total-P: Sample was left out at room temperature overnight, should be stored below 6 degC.
SM 5310 B-2011: Sample was left out at room temperature overnight, should be stored below 6 degC.

Sample Location: FB **Collection Date/Time: 02/24/2022 11:02**

Field ID: FB_02242022 Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2308146	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P410381	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P410660	
	SM 2540 D-2011	TSS	2	U	mg/L	P410899	
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P410663	
2308147	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	UY	mg N/L	P410632	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	UY	mg N/L	P410430	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	UY	mg N/L	P410729	
	EPA 365.1 Rev. 2.0	Total-P	0.002	UY	mg P/L	P410537	
	SM 5310 B-2011	Organic Carbon	0.50	UY	mg C/L	P410673	
2308148	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P410374	

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 350.1 Rev. 2.0: Sample was left out at room temperature overnight, should be stored below 6 degC.
EPA 351.2 Rev. 2.0: Sample was left out at room temperature overnight, should be stored below 6 degC.
EPA 353.2 Rev. 2.0: Sample was left out at room temperature overnight, should be stored below 6 degC.
EPA 365.1 Rev. 2.0: Total-P: Sample was left out at room temperature overnight, should be stored below 6 degC.
SM 5310 B-2011: Sample was left out at room temperature overnight, should be stored below 6 degC.

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P410381

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P410630

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P410632

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P410430

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P410480

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P410668

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P410764

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P410729

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P410827

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P410484

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P410537

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P411138

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P410374

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P410375

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

Reference Method: SM 2320 B-2011
Batch ID: P410660

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

Reference Method: SM 2320 B-2011
Batch ID: P410711

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

Reference Method: SM 2540 D-2011
Batch ID: P410899

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P410901

Component	Result	Code	Units
TSS	3	U	mg/L

Quality Assurance Report
Method Blank Results

Reference Method: SM 4500 F-C-2011
Batch ID: P410663

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-2011
Batch ID: P410715

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P410673

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

Reference Method: SM 5310 B-2011
Batch ID: P410861

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

Reference Method: SM 5310 B-2011
Batch ID: P411060

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P410381

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	97.3		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P410630

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P410632

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	99.2		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P410430

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	94.9		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P410480

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	99.9		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P410668

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	95.0		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P410764

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P410729

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P410827

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P410484

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P410537

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: P411138

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P410374

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P410375

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

Reference Method: SM 2320 B-2011
Batch ID: P410660

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	95.7		P	94 - 106

Reference Method: SM 2320 B-2011
Batch ID: P410711

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	94.8		P	94 - 106

Reference Method: SM 4500 F-C-2011
Batch ID: P410663

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.0		P	93 - 104

Reference Method: SM 4500 F-C-2011
Batch ID: P410715

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.7		P	93 - 104

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P410673

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.3		P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P410861

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.2		P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P411060

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 350.1 Rev. 2.0
Batch ID: P410630

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2307561	Ammonia-N	98.4	100	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P410632

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2308285	Ammonia-N	96.8	98.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P410430

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2307820	Kjeldahl Nitrogen	100	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P410480

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2308138	Kjeldahl Nitrogen	104	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P410668

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2308134	Kjeldahl Nitrogen	86.0	93.5	F/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P410764

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2308185	Kjeldahl Nitrogen	87.6	92.9	F/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P410729

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2308115	NO2NO3-N	100	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P410827

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2307601	NO2NO3-N	100	99.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P410484

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2307601	Total-P	99.7	101	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P410537

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2308273	Total-P	105	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P411138

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2308139	Total-P	93.1	94.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P410374

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2308279	O-Phosphate-P	98.6	99.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P410375

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2308142	O-Phosphate-P	101	101	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Batch ID: P410663

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2307772	Fluoride	94.9	94.4	P/P	92 - 107

Reference Method: SM 4500 F-C-2011
Batch ID: P410715

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2307282	Fluoride	98.9	99.7	P/P	92 - 107

Reference Method: SM 5310 B-2011
Batch ID: P410673

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2307775	Organic Carbon	87.9	90.0	P/P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P410861

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2308465	Organic Carbon	97.2	99.4	P/P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P411060

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2308823	Organic Carbon	91.9	94.2	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P410381

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2308129	Turbidity	14.2	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P410630

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2307561	Ammonia-N	1.49	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P410632

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2308285	Ammonia-N	1.53	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P410430

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2307820	Kjeldahl Nitrogen	2.10	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P410480

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2308138	Kjeldahl Nitrogen	1.25	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P410668

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2308134	Kjeldahl Nitrogen	7.60	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P410764

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2308185	Kjeldahl Nitrogen	5.24	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P410729

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2308115	NO2NO3-N	0.0	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P410827

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2307601	NO2NO3-N	0.490	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P410484

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2307601	Total-P	1.35	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P410537

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2308273	Total-P	1.57	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P411138

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2308139	Total-P	1.90	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P410374

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2308279	O-Phosphate-P	1.01	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P410375

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2308142	O-Phosphate-P	0.396	Spike	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P410660

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2307772	Total Alkalinity	1.80	Sample	P	0 - 5.2

Reference Method: SM 2320 B-2011
Batch ID: P410711

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2307282	Total Alkalinity	1.50	Sample	P	0 - 5.2

Quality Assurance Report
Precision

Reference Method: SM 4500 F-C-2011
Batch ID: P410663

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2307772	Fluoride	0.498	Spike	P	0 - 2.1

Reference Method: SM 4500 F-C-2011
Batch ID: P410715

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2307282	Fluoride	0.516	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
Batch ID: P410673

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2307775	Organic Carbon	2.23	Spike	P	0 - 20

Reference Method: SM 5310 B-2011
Batch ID: P410861

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2308465	Organic Carbon	1.80	Spike	P	0 - 20

Reference Method: SM 5310 B-2011
Batch ID: P411060

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2308823	Organic Carbon	1.90	Spike	P	0 - 20

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A110631
Included Lab Sample IDs: 2308140, 2308141, 2308142, 2308143, 2308144, 2308145, 2308148

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	99.2	P/P	90 - 110
O-Phosphate-P	99.5	99.9	P/P	90 - 110
O-Phosphate-P	99.9	100	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A110635
Included Lab Sample IDs: 2308128, 2308129, 2308130, 2308131, 2308132, 2308133, 2308146

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A110697
Included Lab Sample IDs: 2308147

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	99.6	104	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A110734
Included Lab Sample IDs: 2308134, 2308135, 2308136, 2308137, 2308138, 2308139, 2308147

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	98.8	P/P	90 - 110
Ammonia-N	99.4	99.5	P/P	90 - 110

Reference Method: SM 2320 B-2011
Run ID: A110751
Included Lab Sample IDs: 2308146

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	95.7	97.2	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Run ID: A110751
Included Lab Sample IDs: 2308146

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A110754
Included Lab Sample IDs: 2308138, 2308139

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.3	94.9	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: SM 5310 B-2011
Run ID: A110758
Included Lab Sample IDs: 2308147

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	91.3	90.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A110768
Included Lab Sample IDs: 2308134, 2308135, 2308136, 2308137

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

Reference Method: SM 2320 B-2011
Run ID: A110777
Included Lab Sample IDs: 2308128, 2308129, 2308130, 2308131, 2308132, 2308133

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	96.3	95.1	P/P	90 - 110
Total Alkalinity	97.2	96.3	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Run ID: A110777
Included Lab Sample IDs: 2308128, 2308129, 2308130, 2308131, 2308132, 2308133

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

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A110783
Included Lab Sample IDs: 2308147

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A110804
Included Lab Sample IDs: 2308147

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.8	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A110811
Included Lab Sample IDs: 2308134, 2308136

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	93.8	93.9	P/P	90 - 110
Kjeldahl Nitrogen	93.9	95.7	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A110817
Included Lab Sample IDs: 2308134, 2308135, 2308136, 2308137, 2308138, 2308139

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits

Quality Assurance Report
Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A110817
Included Lab Sample IDs: 2308134, 2308135, 2308136, 2308137, 2308138, 2308139

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	104	102	P/P	90 - 110

Reference Method: SM 5310 B-2011
Run ID: A110833
Included Lab Sample IDs: 2308134, 2308136

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	99.0	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A110891
Included Lab Sample IDs: 2308135, 2308137

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	94.9	95.2	P/P	90 - 110
Kjeldahl Nitrogen	95.2	96.6	P/P	90 - 110

Reference Method: SM 5310 B-2011
Run ID: A110922
Included Lab Sample IDs: 2308135, 2308137, 2308138, 2308139

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	93.8	95.6	P/P	90 - 110
Organic Carbon	99.1	93.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A111066
Included Lab Sample IDs: 2308138, 2308139

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

* Pass/Fail determinations are made for each bracketing calibration verification check.
Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.
Where they are different, both control limits are provided.

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 180.1 Rev. 2.0	Turbidity	97.3				14.2	
EPA 350.1 Rev. 2.0	Ammonia-N	99.8	98.4	100			1.49
	Ammonia-N	99.2	96.8	98.4			1.53
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	94.9	100	103			2.10
	Kjeldahl Nitrogen	99.9	104	102			1.25
	Kjeldahl Nitrogen	95.0	86.0	93.5			7.60
	Kjeldahl Nitrogen	99.0	87.6	92.9			5.24
EPA 353.2 Rev. 2.0	NO2NO3-N	99.5	100	100			0.0
	NO2NO3-N	102	100	99.6			0.490
EPA 365.1 Rev. 2.0	Total-P	102	99.7	101			1.35
	Total-P	104	105	103			1.57
	Total-P	102	93.1	94.9			1.90
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.3	98.6	99.6			1.01
	O-Phosphate-P	101	101	101			0.396
SM 2320 B-2011	Total Alkalinity	95.7				1.80	
	Total Alkalinity	94.8				1.50	
SM 4500 F-C-2011	Fluoride	98.0	94.9	94.4			0.498
	Fluoride	98.7	98.9	99.7			0.516
SM 5310 B-2011	Organic Carbon	96.3	87.9	90.0			2.23
	Organic Carbon	97.2	97.2	99.4			1.80
	Organic Carbon	94.8	91.9	94.2			1.90

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2308128, 2308129, 2308130, 2308131, 2308132, 2308133, 2308146
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2308134, 2308135, 2308136, 2308137, 2308138, 2308139, 2308147
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2308134, 2308135, 2308136, 2308137, 2308138, 2308139, 2308147
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2308134, 2308135, 2308136, 2308137, 2308138, 2308139, 2308147
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2308134, 2308135, 2308136, 2308137, 2308138, 2308139, 2308147
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2308140, 2308141, 2308142, 2308143, 2308144, 2308145, 2308148
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2308128, 2308129, 2308130, 2308131, 2308132, 2308133, 2308146
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2308128, 2308129, 2308130, 2308131, 2308132, 2308133, 2308146
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2308128, 2308129, 2308130, 2308131, 2308132, 2308133, 2308146
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2308134, 2308135, 2308136, 2308137, 2308138, 2308139, 2308147

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	02/25/2022			02/25/2022 15:10	Khloe J Berg	2308129
	02/25/2022			02/25/2022 15:20	Khloe J Berg	2308128
	02/25/2022			02/25/2022 15:24	Khloe J Berg	2308130
	02/25/2022			02/25/2022 15:26	Khloe J Berg	2308131
	02/25/2022			02/25/2022 15:28	Khloe J Berg	2308132
	02/25/2022			02/25/2022 15:31	Khloe J Berg	2308133, 2308146
EPA 350.1 Rev. 2.0	02/25/2022			03/03/2022 11:11	Judith K. Clark	2308134
	02/25/2022			03/03/2022 11:12	Judith K. Clark	2308135
	02/25/2022			03/03/2022 11:14	Judith K. Clark	2308136
	02/25/2022			03/03/2022 11:15	Judith K. Clark	2308137
	02/25/2022			03/03/2022 11:16	Judith K. Clark	2308138
	02/25/2022			03/03/2022 11:18	Judith K. Clark	2308139
	02/25/2022			03/03/2022 12:12	Judith K. Clark	2308147
EPA 351.2 Rev. 2.0	02/25/2022	03/01/2022 10:02	Samantha L Bates	03/01/2022 16:16	Alexandra J Mattheus	2308147
	02/25/2022	03/02/2022 12:36	Samantha L Bates	03/03/2022 17:04	Alexandra J Mattheus	2308138
	02/25/2022	03/02/2022 12:36	Samantha L Bates	03/03/2022 17:09	Alexandra J Mattheus	2308139
	02/25/2022	03/07/2022 11:17	Samantha L Bates	03/08/2022 13:37	Alexandra J Mattheus	2308134
	02/25/2022	03/07/2022 11:17	Samantha L Bates	03/08/2022 14:01	Alexandra J Mattheus	2308136
	02/25/2022	03/09/2022 11:27	Samantha L Bates	03/10/2022 15:19	Alexandra J Mattheus	2308135
	02/25/2022	03/09/2022 11:27	Samantha L Bates	03/10/2022 15:24	Alexandra J Mattheus	2308137
EPA 353.2 Rev. 2.0	02/25/2022			03/07/2022 11:08	Beverly Y. Sanders	2308147
	02/25/2022			03/08/2022 14:57	Nathaniel J Jones	2308134
	02/25/2022			03/08/2022 14:58	Nathaniel J Jones	2308135
	02/25/2022			03/08/2022 14:59	Nathaniel J Jones	2308136
	02/25/2022			03/08/2022 15:00	Nathaniel J Jones	2308137
	02/25/2022			03/08/2022 15:02	Nathaniel J Jones	2308138
	02/25/2022			03/08/2022 15:03	Nathaniel J Jones	2308139
EPA 365.1 Rev. 2.0	02/25/2022	03/02/2022 15:00	Simonne.V. Calhoun	03/04/2022 15:22	Sarah A Nixon	2308134
	02/25/2022	03/02/2022 15:00	Simonne.V. Calhoun	03/04/2022 15:23	Sarah A Nixon	2308135
	02/25/2022	03/02/2022 15:00	Simonne.V. Calhoun	03/04/2022 15:24	Sarah A Nixon	2308136
	02/25/2022	03/02/2022 15:00	Simonne.V. Calhoun	03/04/2022 15:25	Sarah A Nixon	2308137
	02/25/2022	03/04/2022 14:00	Simonne.V. Calhoun	03/07/2022 18:36	Sarah A Nixon	2308147
	02/25/2022	03/17/2022 15:15	Simonne.V. Calhoun	03/21/2022 14:01	James L Waggerby	2308139
	02/25/2022	03/17/2022 15:15	Simonne.V. Calhoun	03/21/2022 14:03	James L Waggerby	2308138
EPA 365.1 Rev. 2.0 dissolved	02/25/2022			02/25/2022 15:08	James L Waggerby	2308148
	02/25/2022			02/25/2022 15:21	James L Waggerby	2308142
	02/25/2022			02/25/2022 15:23	James L Waggerby	2308140
	02/25/2022			02/25/2022 15:24	James L Waggerby	2308141
	02/25/2022			02/25/2022 15:29	James L Waggerby	2308143
	02/25/2022			02/25/2022 15:30	James L Waggerby	2308144

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	02/25/2022			02/25/2022 15:31	James L Waggerby	2308145
SM 2320 B-2011	02/25/2022			03/03/2022 02:33	Dale L. Simmons	2308146
	02/25/2022			03/04/2022 09:27	Dale L. Simmons	2308128
	02/25/2022			03/04/2022 09:41	Dale L. Simmons	2308129
	02/25/2022			03/04/2022 09:54	Dale L. Simmons	2308130
	02/25/2022			03/04/2022 10:48	Dale L. Simmons	2308131
	02/25/2022			03/04/2022 11:01	Dale L. Simmons	2308132
	02/25/2022			03/04/2022 11:14	Dale L. Simmons	2308133
SM 2540 D-2011	02/25/2022			03/02/2022 14:26	Yijie Li	2308128, 2308129, 2308130, 2308131, 2308132, 2308133, 2308146
SM 4500 F-C-2011	02/25/2022			03/03/2022 02:33	Dale L. Simmons	2308146
	02/25/2022			03/04/2022 05:04	Dale L. Simmons	2308128
	02/25/2022			03/04/2022 05:09	Dale L. Simmons	2308129
	02/25/2022			03/04/2022 05:14	Dale L. Simmons	2308130
	02/25/2022			03/04/2022 05:20	Dale L. Simmons	2308131
	02/25/2022			03/04/2022 05:25	Dale L. Simmons	2308132
	02/25/2022			03/04/2022 05:30	Dale L. Simmons	2308133
SM 5310 B-2011	02/25/2022			03/03/2022 01:59	Nathaniel J Jones	2308147
	02/25/2022			03/08/2022 20:14	Khloe J Berg	2308134
	02/25/2022			03/08/2022 21:34	Khloe J Berg	2308136
	02/25/2022			03/11/2022 17:15	Khloe J Berg	2308135
	02/25/2022			03/11/2022 17:31	Khloe J Berg	2308137
	02/25/2022			03/11/2022 18:42	Khloe J Berg	2308138
	02/25/2022			03/11/2022 18:58	Khloe J Berg	2308139