Chemical Analysis Report

NW-DIST-2022-02-16-01

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

Event Description: **Project GreenShores Quarterly Sampling**
Request ID: **RQ-2022-02-14-11**
Customer: **NW-DIST**
Project ID: **DISTRICT**

Send Reports to:
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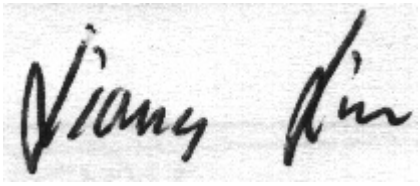
Date Certified: 11-MAR-2022 12:19



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: Range Marker E of Texar **Collection Date/Time: 02/14/2022 10:24**

Field ID: 1 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2305976	DEP SOP: NU-094-1	Color (true)**	28	Q	PCU	P409924	
	EPA 180.1 Rev. 2.0	Turbidity	14		NTU	P409935	
	SM 2540 D-2011	TSS	35		mg/L	P410257	
2305990	EPA 350.1 Rev. 2.0	Ammonia-N	0.032		mg N/L	P410524	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.40	I	mg N/L	P409912	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.059		mg N/L	P410265	
	EPA 365.1 Rev. 2.0	Total-P	0.021		mg P/L	P409904	

Ref. Method and Comment:
DEP SOP: NU-094-1: The sample expired upon receipt.

Sample Location: Midpoint Between Bay Bridge & Muscogee **Collection Date/Time: 02/14/2022 10:38**

Field ID: 2 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2305977	DEP SOP: NU-094-1	Color (true)**	27		PCU	P409924	
	EPA 180.1 Rev. 2.0	Turbidity	13		NTU	P409935	
	SM 2540 D-2011	TSS	20	A	mg/L	P410257	
2305991	EPA 350.1 Rev. 2.0	Ammonia-N	0.030		mg N/L	P410524	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.38	I	mg N/L	P409912	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.057		mg N/L	P410265	
	EPA 365.1 Rev. 2.0	Total-P	0.020		mg P/L	P409904	

Sample Location: East End of Primary Stormdrain **Collection Date/Time: 02/14/2022 10:48**

Field ID: 3 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2305978	DEP SOP: NU-094-1	Color (true)**	17		PCU	P409924	
	EPA 180.1 Rev. 2.0	Turbidity	7.3		NTU	P409935	
	SM 2540 D-2011	TSS	6	I	mg/L	P410259	
2305992	EPA 350.1 Rev. 2.0	Ammonia-N	0.023		mg N/L	P410524	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.35	I	mg N/L	P409912	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.086		mg N/L	P410265	
	EPA 365.1 Rev. 2.0	Total-P	0.016		mg P/L	P409904	

Sample Location: South of Primary Stormdrain **Collection Date/Time: 02/14/2022 10:56**

Field ID: 4 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2305979	DEP SOP: NU-094-1	Color (true)**	22		PCU	P409924	
	EPA 180.1 Rev. 2.0	Turbidity	10		NTU	P409935	
	SM 2540 D-2011	TSS	9	I	mg/L	P410259	
2305993	EPA 350.1 Rev. 2.0	Ammonia-N	0.026		mg N/L	P410524	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.30	I	mg N/L	P409912	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.087		mg N/L	P410265	
	EPA 365.1 Rev. 2.0	Total-P	0.018		mg P/L	P410097	

Sample Location: End of Chase St. **Collection Date/Time: 02/14/2022 11:12**

Field ID: 5 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2305980	DEP SOP: NU-094-1	Color (true)**	23		PCU	P409924	
	EPA 180.1 Rev. 2.0	Turbidity	10		NTU	P409935	
	SM 2540 D-2011	TSS	11		mg/L	P410259	
2305994	EPA 350.1 Rev. 2.0	Ammonia-N	0.028		mg N/L	P410524	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.36	I	mg N/L	P409912	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.079		mg N/L	P410265	
	EPA 365.1 Rev. 2.0	Total-P	0.019		mg P/L	P410097	

Sample Location: Midpoint Between Muscogee and Hawkshaw **Collection Date/Time: 02/14/2022 11:21**

Field ID: 6 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2305981	DEP SOP: NU-094-1	Color (true)**	24	A	PCU	P409924	
	EPA 180.1 Rev. 2.0	Turbidity	11		NTU	P409935	
	SM 2540 D-2011	TSS	9	I	mg/L	P410259	
2305995	EPA 350.1 Rev. 2.0	Ammonia-N	0.029		mg N/L	P410524	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.31	I	mg N/L	P409912	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.066		mg N/L	P410265	
	EPA 365.1 Rev. 2.0	Total-P	0.020		mg P/L	P410097	

Sample Location: Midpoint Between Bridge and Port Spoil Pond **Collection Date/Time: 02/14/2022 11:29**

Field ID: 7 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2305982	DEP SOP: NU-094-1	Color (true)**	25		PCU	P409924	
	EPA 180.1 Rev. 2.0	Turbidity	12		NTU	P409935	
	SM 2540 D-2011	TSS	12		mg/L	P410259	
2305996	EPA 350.1 Rev. 2.0	Ammonia-N	0.029		mg N/L	P410524	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.34	I	mg N/L	P409912	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.065		mg N/L	P410265	
	EPA 365.1 Rev. 2.0	Total-P	0.020		mg P/L	P410097	

Sample Location: West of Primary Stormdrain **Collection Date/Time: 02/14/2022 11:04**

Field ID: 8 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2305983	DEP SOP: NU-094-1	Color (true)**	19		PCU	P409924	
	EPA 180.1 Rev. 2.0	Turbidity	6.9		NTU	P409935	
	SM 2540 D-2011	TSS	5	I	mg/L	P410259	
2305997	EPA 350.1 Rev. 2.0	Ammonia-N	0.025		mg N/L	P410524	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.30	I	mg N/L	P409912	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.11		mg N/L	P410265	
	EPA 365.1 Rev. 2.0	Total-P	0.016		mg P/L	P410214	

Sample Location: West of Hawkshaw Lagoon **Collection Date/Time: 02/14/2022 12:07**

Field ID: 9 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2305984	DEP SOP: NU-094-1	Color (true)**	24		PCU	P409924	
	EPA 180.1 Rev. 2.0	Turbidity	9.2		NTU	P409935	
	SM 2540 D-2011	TSS	5	I	mg/L	P410259	
2305998	EPA 350.1 Rev. 2.0	Ammonia-N	0.029		mg N/L	P410524	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.37	I	mg N/L	P409913	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.067		mg N/L	P410265	
	EPA 365.1 Rev. 2.0	Total-P	0.016		mg P/L	P410214	

Sample Location: South of Boxfront Stormdrain **Collection Date/Time: 02/14/2022 12:00**

Field ID: 10 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2305985	DEP SOP: NU-094-1	Color (true)**	26		PCU	P409924	
	EPA 180.1 Rev. 2.0	Turbidity	12		NTU	P409935	
	SM 2540 D-2011	TSS	19		mg/L	P410257	
2305999	EPA 350.1 Rev. 2.0	Ammonia-N	0.033		mg N/L	P410404	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.33	I	mg N/L	P409912	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.057		mg N/L	P410265	
	EPA 365.1 Rev. 2.0	Total-P	0.019		mg P/L	P410214	

Sample Location: Seville Marina Inlet **Collection Date/Time: 02/14/2022 11:47**

Field ID: 11 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2305986	DEP SOP: NU-094-1	Color (true)**	26		PCU	P409925	
	EPA 180.1 Rev. 2.0	Turbidity	12		NTU	P409935	
	SM 2540 D-2011	TSS	11		mg/L	P410257	
2306000	EPA 350.1 Rev. 2.0	Ammonia-N	0.031		mg N/L	P410404	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.34	I	mg N/L	P409913	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.056		mg N/L	P410266	
	EPA 365.1 Rev. 2.0	Total-P	0.018		mg P/L	P410214	

Sample Location: FB_Seville Marina Inlet **Collection Date/Time: 02/14/2022 11:49**

Field ID: FB_02142022 Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2306004	DEP SOP: NU-094-1	Color (true)**	2.5	U	PCU	P409925	
	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P409935	
	SM 2540 D-2011	TSS	2	U	mg/L	P410257	
2306005	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P410408	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P409914	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P410234	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P409921	

Sample Location: East of Port Spoil Pond **Collection Date/Time: 02/14/2022 11:36**

Field ID: 12 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2305987	DEP SOP: NU-094-1	Color (true)**	27	A	PCU	P409925	
	EPA 180.1 Rev. 2.0	Turbidity	13		NTU	P409935	
	SM 2540 D-2011	TSS	11		mg/L	P410257	
2306001	EPA 350.1 Rev. 2.0	Ammonia-N	0.029		mg N/L	P410404	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.31	I	mg N/L	P409912	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.054		mg N/L	P410266	
	EPA 365.1 Rev. 2.0	Total-P	0.019		mg P/L	P410214	

Sample Location: Hawkshaw Lagoon at Memorial Bridge **Collection Date/Time: 02/14/2022 12:57**

Field ID: 13 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2305988	DEP SOP: NU-094-1	Color (true)**	6.5		PCU	P409925	
	EPA 180.1 Rev. 2.0	Turbidity	0.55	I	NTU	P409935	
	SM 2540 D-2011	TSS	3	UA	mg/L	P410260	
2306002	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P410527	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.47		mg N/L	P409913	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P410422	
	EPA 365.1 Rev. 2.0	Total-P	0.007	I	mg P/L	P410214	

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

Sample Location: 150ft South of Hawkshaw Lagoon East Stormdrain

Collection Date/Time: 02/14/2022 13:14

Field ID: 14

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2305989	DEP SOP: NU-094-1	Color (true)**	9.7		PCU	P409925	
	EPA 180.1 Rev. 2.0	Turbidity	6.9	A	NTU	P409935	
	SM 2540 D-2011	TSS	6	I	mg/L	P410260	
2306003	EPA 350.1 Rev. 2.0	Ammonia-N	0.083		mg N/L	P410527	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.37	I	mg N/L	P409913	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.42		mg N/L	P410266	
	EPA 365.1 Rev. 2.0	Total-P	0.050		mg P/L	P409995	

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

Quality Assurance Report
Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P409924

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: DEP SOP: NU-094-1
Batch ID: P409925

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P409935

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P410404

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P410408

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P410524

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P410527

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409912

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409913

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409914

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P410234

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P410265

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P410266

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P410422

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P409904

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P409921

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P409995

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P410097

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: P410214

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

Reference Method: SM 2540 D-2011
Batch ID: P410257

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P410259

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P410260

Component	Result	Code	Units
TSS	3	U	mg/L

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: DEP SOP: NU-094-1
Batch ID: P409924

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.2		P	85 - 115

Reference Method: DEP SOP: NU-094-1
Batch ID: P409925

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	100		P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P409935

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	97.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P410404

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P410408

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P410524

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P410527

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409912

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409913

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409914

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	94.5		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P410234

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	99.0		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P410265

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: P410266

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: P410422

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: P409904

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P409921

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P409995

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: P410097

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P410214

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

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P410404

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2305999	Ammonia-N	96.6	97.0	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P410408

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2305600	Ammonia-N	97.0	98.4	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P410524

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2305990	Ammonia-N	99.0	100	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P410527

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2306002	Ammonia-N	96.8	96.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409912

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2305990	Kjeldahl Nitrogen	97.7	94.7	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409913

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2305853	Kjeldahl Nitrogen	97.9	96.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409914

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2305750	Kjeldahl Nitrogen	107	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P410234

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2305878	NO2NO3-N	96.2		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P410265

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2305999	NO2NO3-N	100	102	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P410266

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2306002	NO2NO3-N	99.1	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P410422

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2306945	NO2NO3-N	106	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P409904

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2305852	Total-P	98.6	98.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P409921

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2306030	Total-P	106	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P409995

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2306200	Total-P	96.2	96.1	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P410097

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2306642	Total-P	93.5	97.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P410214

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2306947	Total-P	97.3	96.7	P/P	90 - 110

Quality Assurance Report
Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P409924

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305981	Color (true)	2.31	Sample	P	0 - 20

Reference Method: DEP SOP: NU-094-1
Batch ID: P409925

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305987	Color (true)	2.70	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P409935

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305989	Turbidity	0.871	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P410404

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305999	Ammonia-N	0.247	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P410408

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305600	Ammonia-N	0.905	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P410524

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305990	Ammonia-N	0.615	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P410527

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2306002	Ammonia-N	0.191	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409912

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305990	Kjeldahl Nitrogen	2.68	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409913

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305853	Kjeldahl Nitrogen	0.951	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409914

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305750	Kjeldahl Nitrogen	4.83	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P410234

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305878	NO2NO3-N	0.239	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P410265

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305999	NO2NO3-N	1.55	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P410266

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2306002	NO2NO3-N	0.980	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P410422

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2306945	NO2NO3-N	0.473	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P409904

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305852	Total-P	0.216	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P409921

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2306030	Total-P	0.861	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P409995

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2306200	Total-P	0.123	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P410097

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2306642	Total-P	4.57	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P410214

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2306947	Total-P	0.619	Spike	P	0 - 20

Reference Method: SM 2540 D-2011
Batch ID: P410257

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305977	TSS	4.08	Sample	P	0 - 10

Reference Method: SM 2540 D-2011
Batch ID: P410259

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305820	TSS	7.14	Sample	P	0 - 10

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

Quality Assurance Report
Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A110439

Included Lab Sample IDs: 2305976, 2305977, 2305978, 2305979, 2305980, 2305981, 2305982, 2305983, 2305984, 2305985, 2305986, 2305987, 2305988, 2305989, 2306004

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	100	P/P	85 - 115
Color (true)	99.9	101	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A110446

Included Lab Sample IDs: 2305976, 2305977, 2305978, 2305979, 2305980, 2305981, 2305982, 2305983, 2305984, 2305985, 2305986, 2305987, 2305988, 2305989, 2306004

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A110512

Included Lab Sample IDs: 2305990, 2305991, 2305992, 2305993, 2305994, 2305995, 2305996, 2305997, 2305998, 2305999, 2306000, 2306001, 2306002, 2306003, 2306005

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	100	95.4	P/P	90 - 110
Kjeldahl Nitrogen	101	95.7	P/P	90 - 110
Kjeldahl Nitrogen	102	101	P/P	90 - 110
Kjeldahl Nitrogen	95.7	95.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A110561

Included Lab Sample IDs: 2305990, 2305991, 2305992, 2306005

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.0	98.0	P/P	90 - 110
Total-P	98.2	98.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A110565

Included Lab Sample IDs: 2306005

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A110575

Included Lab Sample IDs: 2305990, 2305991, 2305992, 2305993, 2305994, 2305995, 2305996, 2305997, 2305998, 2305999, 2306000, 2306001, 2306003

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	102	101	P/P	90 - 110
NO2NO3-N	102	102	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A110618
Included Lab Sample IDs: 2305993, 2305994, 2305995, 2305996, 2306003

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	100	P/P	90 - 110
Total-P	104	98.8	P/P	90 - 110
Total-P	109	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A110630
Included Lab Sample IDs: 2305997, 2305998, 2305999, 2306000, 2306001, 2306002

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

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A110644
Included Lab Sample IDs: 2305999, 2306000, 2306001, 2306005

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.7	99.2	P/P	90 - 110
Ammonia-N	99.1	99.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A110656
Included Lab Sample IDs: 2306002

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

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A110696
Included Lab Sample IDs: 2305990, 2305991, 2305992, 2305993, 2305994, 2305995, 2305996, 2305997, 2305998, 2306002, 2306003

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.1	97.4	P/P	90 - 110
Ammonia-N	97.7	97.5	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
DEP SOP: NU-094-1	Color (true)	99.2				2.31	
	Color (true)	100				2.70	
EPA 180.1 Rev. 2.0	Turbidity	97.9				0.871	
EPA 350.1 Rev. 2.0	Ammonia-N	98.4	96.6	97.0			0.247
	Ammonia-N	97.4	97.0	98.4			0.905
	Ammonia-N	95.6	99.0	100			0.615
	Ammonia-N	95.2	96.8	96.6			0.191
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	98.1	97.7	94.7			2.68
	Kjeldahl Nitrogen	97.3	97.9	96.8			0.951
	Kjeldahl Nitrogen	94.5	107	102			4.83
EPA 353.2 Rev. 2.0	NO2NO3-N	99.0	96.2				0.239
	NO2NO3-N	100	100	102			1.55
	NO2NO3-N	100	99.1	100			0.980
	NO2NO3-N	102	106	106			0.473
EPA 365.1 Rev. 2.0	Total-P	108	98.6	98.8			0.216
	Total-P	107	106	105			0.861
	Total-P	104	96.2	96.1			0.123
	Total-P	104	93.5	97.8			4.57
	Total-P	107	97.3	96.7			0.619
SM 2540 D-2011	TSS					4.08	
	TSS					7.14	

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2305976, 2305977, 2305978, 2305979, 2305980, 2305981, 2305982, 2305983, 2305984, 2305985, 2305986, 2305987, 2305988, 2305989, 2306004
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2305976, 2305977, 2305978, 2305979, 2305980, 2305981, 2305982, 2305983, 2305984, 2305985, 2305986, 2305987, 2305988, 2305989, 2306004
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2305990, 2305991, 2305992, 2305993, 2305994, 2305995, 2305996, 2305997, 2305998, 2305999, 2306000, 2306001, 2306002, 2306003, 2306005
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2305990, 2305991, 2305992, 2305993, 2305994, 2305995, 2305996, 2305997, 2305998, 2305999, 2306000, 2306001, 2306002, 2306003, 2306005
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2305990, 2305991, 2305992, 2305993, 2305994, 2305995, 2305996, 2305997, 2305998, 2305999, 2306000, 2306001, 2306002, 2306003, 2306005
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2305990, 2305991, 2305992, 2305993, 2305994, 2305995, 2305996, 2305997, 2305998, 2305999, 2306000, 2306001, 2306002, 2306003, 2306005
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2305976, 2305977, 2305978, 2305979, 2305980, 2305981, 2305982, 2305983, 2305984, 2305985, 2305986, 2305987, 2305988, 2305989, 2306004

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: NU-094-1	02/16/2022			02/16/2022 10:36	Anna M. Plaviak	2305976, 2305977
	02/16/2022			02/16/2022 10:37	Anna M. Plaviak	2305978
	02/16/2022			02/16/2022 10:38	Anna M. Plaviak	2305979
	02/16/2022			02/16/2022 10:39	Anna M. Plaviak	2305980
	02/16/2022			02/16/2022 10:40	Anna M. Plaviak	2305981
	02/16/2022			02/16/2022 10:41	Anna M. Plaviak	2305982, 2305983
	02/16/2022			02/16/2022 10:42	Anna M. Plaviak	2305984
	02/16/2022			02/16/2022 10:43	Anna M. Plaviak	2305985
	02/16/2022			02/16/2022 10:47	Anna M. Plaviak	2305986
	02/16/2022			02/16/2022 10:48	Anna M. Plaviak	2305987
	02/16/2022			02/16/2022 10:49	Anna M. Plaviak	2305988
	02/16/2022			02/16/2022 10:50	Anna M. Plaviak	2305989, 2306004
EPA 180.1 Rev. 2.0	02/16/2022			02/16/2022 09:57	Khloe J Berg	2305989
	02/16/2022			02/16/2022 09:58	Khloe J Berg	2305979
	02/16/2022			02/16/2022 10:00	Khloe J Berg	2305980
	02/16/2022			02/16/2022 10:01	Khloe J Berg	2305981
	02/16/2022			02/16/2022 10:02	Khloe J Berg	2305982
	02/16/2022			02/16/2022 10:03	Khloe J Berg	2305983
	02/16/2022			02/16/2022 10:05	Khloe J Berg	2305984
	02/16/2022			02/16/2022 10:06	Khloe J Berg	2305985
	02/16/2022			02/16/2022 10:07	Khloe J Berg	2305986
	02/16/2022			02/16/2022 10:08	Khloe J Berg	2305987
	02/16/2022			02/16/2022 10:12	Khloe J Berg	2305988
	02/16/2022			02/16/2022 10:13	Khloe J Berg	2306004
	02/16/2022			02/16/2022 10:14	Khloe J Berg	2305976
	02/16/2022			02/16/2022 10:15	Khloe J Berg	2305977
	02/16/2022			02/16/2022 10:17	Khloe J Berg	2305978
EPA 350.1 Rev. 2.0	02/16/2022			02/25/2022 13:10	Ping Hua	2305999
	02/16/2022			02/25/2022 13:23	Ping Hua	2306000
	02/16/2022			02/25/2022 13:24	Ping Hua	2306001
	02/16/2022			02/25/2022 15:30	Ping Hua	2306005
	02/16/2022			03/01/2022 10:48	Ping Hua	2305990
	02/16/2022			03/01/2022 10:53	Ping Hua	2305991
	02/16/2022			03/01/2022 10:55	Ping Hua	2305992
	02/16/2022			03/01/2022 10:56	Ping Hua	2305993
	02/16/2022			03/01/2022 10:57	Ping Hua	2305994
	02/16/2022			03/01/2022 10:59	Ping Hua	2305995
	02/16/2022			03/01/2022 11:00	Ping Hua	2305996
	02/16/2022			03/01/2022 11:01	Ping Hua	2305997
	02/16/2022			03/01/2022 11:03	Ping Hua	2305998

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 350.1 Rev. 2.0	02/16/2022			03/01/2022 12:08	Ping Hua	2306002
	02/16/2022			03/01/2022 12:12	Ping Hua	2306003
EPA 351.2 Rev. 2.0	02/16/2022	02/17/2022 14:14	Samantha L Bates	02/18/2022 16:53	Alexandra J Mattheus	2305990
	02/16/2022	02/17/2022 14:14	Samantha L Bates	02/18/2022 16:57	Alexandra J Mattheus	2305991
	02/16/2022	02/17/2022 14:14	Samantha L Bates	02/18/2022 16:58	Alexandra J Mattheus	2305992
	02/16/2022	02/17/2022 14:14	Samantha L Bates	02/18/2022 17:02	Alexandra J Mattheus	2305993
	02/16/2022	02/17/2022 14:14	Samantha L Bates	02/18/2022 17:04	Alexandra J Mattheus	2305994
	02/16/2022	02/17/2022 14:14	Samantha L Bates	02/18/2022 17:05	Alexandra J Mattheus	2305995
	02/16/2022	02/17/2022 14:14	Samantha L Bates	02/18/2022 17:06	Alexandra J Mattheus	2305996
	02/16/2022	02/17/2022 14:14	Samantha L Bates	02/18/2022 17:08	Alexandra J Mattheus	2305997
	02/16/2022	02/17/2022 14:14	Samantha L Bates	02/18/2022 17:09	Alexandra J Mattheus	2305999
	02/16/2022	02/17/2022 14:14	Samantha L Bates	02/18/2022 17:10	Alexandra J Mattheus	2306001
	02/16/2022	02/17/2022 14:14	Samantha L Bates	02/18/2022 17:26	Alexandra J Mattheus	2305998
	02/16/2022	02/17/2022 14:14	Samantha L Bates	02/18/2022 17:27	Alexandra J Mattheus	2306000
	02/16/2022	02/17/2022 14:14	Samantha L Bates	02/18/2022 17:29	Alexandra J Mattheus	2306002
	02/16/2022	02/17/2022 14:14	Samantha L Bates	02/18/2022 17:30	Alexandra J Mattheus	2306003
	02/16/2022	02/17/2022 14:14	Samantha L Bates	02/18/2022 17:55	Alexandra J Mattheus	2306005
EPA 353.2 Rev. 2.0	02/16/2022			02/23/2022 09:52	Beverly Y. Sanders	2306005
	02/16/2022			02/23/2022 15:15	Nathaniel J Jones	2305999
	02/16/2022			02/23/2022 15:21	Nathaniel J Jones	2305990
	02/16/2022			02/23/2022 15:22	Nathaniel J Jones	2305991
	02/16/2022			02/23/2022 15:23	Nathaniel J Jones	2305992
	02/16/2022			02/23/2022 15:24	Nathaniel J Jones	2305993
	02/16/2022			02/23/2022 15:25	Nathaniel J Jones	2305994
	02/16/2022			02/23/2022 15:27	Nathaniel J Jones	2305995
	02/16/2022			02/23/2022 15:28	Nathaniel J Jones	2305996
	02/16/2022			02/23/2022 15:29	Nathaniel J Jones	2305997
	02/16/2022			02/23/2022 15:30	Nathaniel J Jones	2305998
	02/16/2022			02/23/2022 15:50	Nathaniel J Jones	2306000
	02/16/2022			02/23/2022 15:51	Nathaniel J Jones	2306001
	02/16/2022			02/23/2022 15:53	Nathaniel J Jones	2306003
	02/16/2022			02/25/2022 16:52	Nathaniel J Jones	2306002
EPA 365.1 Rev. 2.0	02/16/2022	02/17/2022 14:00	Simonne.V. Calhoun	02/22/2022 17:26	Sarah A Nixon	2305990
	02/16/2022	02/17/2022 14:00	Simonne.V. Calhoun	02/22/2022 17:27	Sarah A Nixon	2305991
	02/16/2022	02/17/2022 14:00	Simonne.V. Calhoun	02/22/2022 17:28	Sarah A Nixon	2305992
	02/16/2022	02/17/2022 14:00	Simonne.V. Calhoun	02/22/2022 17:54	Sarah A Nixon	2306005
	02/16/2022	02/18/2022 15:35	Simonne.V. Calhoun	02/23/2022 12:50	Sarah A Nixon	2306003
	02/16/2022	02/22/2022 16:05	Simonne.V. Calhoun	02/23/2022 14:29	Sarah A Nixon	2305993
	02/16/2022	02/22/2022 16:05	Simonne.V. Calhoun	02/23/2022 14:30	Sarah A Nixon	2305994
	02/16/2022	02/22/2022 16:05	Simonne.V. Calhoun	02/23/2022 14:31	Sarah A Nixon	2305995

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	02/16/2022	02/22/2022 16:05	Simonne.V. Calhoun	02/23/2022 14:54	Sarah A Nixon	2305996
	02/16/2022	02/23/2022 15:05	Simonne.V. Calhoun	02/24/2022 14:17	Sarah A Nixon	2305997
	02/16/2022	02/23/2022 15:05	Simonne.V. Calhoun	02/24/2022 14:25	Sarah A Nixon	2305998
	02/16/2022	02/23/2022 15:05	Simonne.V. Calhoun	02/24/2022 14:26	Sarah A Nixon	2305999
	02/16/2022	02/23/2022 15:05	Simonne.V. Calhoun	02/24/2022 14:27	Sarah A Nixon	2306000
	02/16/2022	02/23/2022 15:05	Simonne.V. Calhoun	02/24/2022 14:28	Sarah A Nixon	2306001
	02/16/2022	02/23/2022 15:05	Simonne.V. Calhoun	02/24/2022 14:29	Sarah A Nixon	2306002
SM 2540 D-2011	02/16/2022			02/18/2022 15:06	Yijie Li	2305976, 2305977, 2305978, 2305979, 2305980, 2305981, 2305982, 2305983, 2305984, 2305985, 2305986, 2305987, 2305988, 2305989, 2306004