Chemical Analysis Report

NW-DIST-2022-03-23-01

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

Event Description: **Hogtown Car Run**
Request ID: **RQ-2022-03-21-38**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
160 Government Center
Suite 208
Pensacola, FL 32502-5794
Attn: Myranda Butler

For additional information please contact
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Certified by: Colin Wright, Program Administrator

Date Certified: 11-APR-2022 08:35

NON-CONFORMANCE REPORT INCLUDED

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: Hogtown Drain above Chat Holly Rd **Collection Date/Time: 03/21/2022 10:30**

Field ID: G3NW0241 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2314097	DEP SOP: NU-094-1	Color (true)**	110	Q	PCU	P411491	
	EPA 180.1 Rev. 2.0	Turbidity	4.6	Q	NTU	P411500	
	EPA 300.0 Rev. 2.1	Chloride	8.3		mg Cl/L	P411618	
		Sulfate	2.1		mg SO4/L	P411620	
	SM 2320 B-2011	Total Alkalinity	4.2		mg CaCO3/L	P411603	
	SM 2540 C-2011	TDS	56		mg/L	P411801	
	SM 2540 D-2011	TSS	2	I	mg/L	P411687	RPD
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P411606	
2314103	EPA 350.1 Rev. 2.0	Ammonia-N	0.016		mg N/L	P411554	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.35		mg N/L	P411530	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.022		mg N/L	P411612	
	EPA 365.1 Rev. 2.0	Total-P	0.011		mg P/L	P411679	
	SM 5310 B-2011	Organic Carbon	13		mg C/L	P411676	

Ref. Method and Comment:
DEP SOP: NU-094-1: The sample expired upon receipt.
EPA 180.1 Rev. 2.0: The sample expired upon receipt.

Sample Location: Hogtown Drainage at Churchill Bayou Rd **Collection Date/Time: 03/21/2022 10:40**

Field ID: G3NW0038 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2314098	DEP SOP: NU-094-1	Color (true)**	140	Q	PCU	P411491	
	EPA 180.1 Rev. 2.0	Turbidity	7.2	Q	NTU	P411500	
	EPA 300.0 Rev. 2.1	Chloride	17		mg Cl/L	P411618	
		Sulfate	3.5		mg SO4/L	P411620	
	SM 2320 B-2011	Total Alkalinity	30		mg CaCO3/L	P411603	
	SM 2540 C-2011	TDS	91		mg/L	P411801	
	SM 2540 D-2011	TSS	3	I	mg/L	P411687	RPD
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P411606	
2314104	EPA 350.1 Rev. 2.0	Ammonia-N	0.028		mg N/L	P411554	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.48		mg N/L	P411531	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.024		mg N/L	P411612	
	EPA 365.1 Rev. 2.0	Total-P	0.021		mg P/L	P411679	
	SM 5310 B-2011	Organic Carbon	15		mg C/L	P411676	

Ref. Method and Comment:
DEP SOP: NU-094-1: The sample expired upon receipt.
EPA 180.1 Rev. 2.0: The sample expired upon receipt.

Sample Location: Drain to Musset Bayou upstream of Don Bishop Rd

Collection Date/Time: 03/21/2022 11:50

Field ID: G3NW0240

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2314099	DEP SOP: NU-094-1	Color (true)**	96	Q	PCU	P411491	
	EPA 180.1 Rev. 2.0	Turbidity	3.3		NTU	P411500	
	EPA 300.0 Rev. 2.1	Chloride	19		mg Cl/L	P411778	
		Sulfate	2.9		mg SO4/L	P411781	
	SM 2320 B-2011	Total Alkalinity	9.5		mg CaCO3/L	P411603	
	SM 2540 C-2011	TDS	74		mg/L	P411801	
	SM 2540 D-2011	TSS	2	I	mg/L	P411687	RPD
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P411606	
2314105	EPA 350.1 Rev. 2.0	Ammonia-N	0.005		mg N/L	P411553	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.40		mg N/L	P411768	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.015		mg N/L	P411612	
	EPA 365.1 Rev. 2.0	Total-P	0.013		mg P/L	P411679	
	SM 5310 B-2011	Organic Carbon	12		mg C/L	P411676	

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

Sample Location: Direct Runoff to Bay off of Roberts Rd **Collection Date/Time: 03/21/2022 11:30**

Field ID: G3NW0239 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2314100	DEP SOP: NU-094-1	Color (true)**	130	Q	PCU	P411491	
	EPA 180.1 Rev. 2.0	Turbidity	3.8	Q	NTU	P411500	
	EPA 300.0 Rev. 2.1	Chloride	7.5		mg Cl/L	P411778	
		Sulfate	0.89		mg SO4/L	P411781	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P411603	
	SM 2540 C-2011	TDS	36		mg/L	P411801	
	SM 2540 D-2011	TSS	2	I	mg/L	P411687	RPD
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P411606	
2314106	EPA 350.1 Rev. 2.0	Ammonia-N	0.005	I	mg N/L	P411552	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.52		mg N/L	P411531	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P411612	
	EPA 365.1 Rev. 2.0	Total-P	0.013		mg P/L	P411679	
	SM 5310 B-2011	Organic Carbon	15		mg C/L	P411676	

Ref. Method and Comment:
DEP SOP: NU-094-1: The sample expired upon receipt.
EPA 180.1 Rev. 2.0: The sample expired upon receipt.

Sample Location: Drain to Hewett Bayou **Collection Date/Time: 03/21/2022 12:30**

Field ID: G3NW0238 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2314101	DEP SOP: NU-094-1	Color (true)**	170	Q	PCU	P411491	
	EPA 180.1 Rev. 2.0	Turbidity	6.0		NTU	P411500	
	EPA 300.0 Rev. 2.1	Chloride	14	A	mg Cl/L	P411778	
		Sulfate	2.4	A	mg SO4/L	P411781	
	SM 2320 B-2011	Total Alkalinity	22		mg CaCO3/L	P411603	
	SM 2540 C-2011	TDS	82		mg/L	P411801	
	SM 2540 D-2011	TSS	6	I	mg/L	P411687	RPD
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P411606	
2314107	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	I	mg N/L	P411553	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.51		mg N/L	P411768	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P411612	
	EPA 365.1 Rev. 2.0	Total-P	0.015		mg P/L	P411679	
	SM 5310 B-2011	Organic Carbon	16		mg C/L	P411676	

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

Sample Location: Drain to Mack Bayou at Mack Bayou Rd **Collection Date/Time: 03/21/2022 12:50**

Field ID: G3NW0237 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2314102	DEP SOP: NU-094-1	Color (true)**	83	A	PCU	P411491	
	EPA 180.1 Rev. 2.0	Turbidity	3.9		NTU	P411500	
	EPA 300.0 Rev. 2.1	Chloride	79		mg Cl/L	P411778	
		Sulfate	12		mg SO4/L	P411781	
	SM 2320 B-2011	Total Alkalinity	36		mg CaCO3/L	P411654	
	SM 2540 C-2011	TDS	192		mg/L	P411801	
	SM 2540 D-2011	TSS	3	I	mg/L	P411687	RPD
	SM 4500 F-C-2011	Fluoride	0.046	I	mg F/L	P411660	
2314108	EPA 350.1 Rev. 2.0	Ammonia-N	0.054	Y	mg N/L	P411702	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.52	Y	mg N/L	P411769	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.053	Y	mg N/L	P411613	
	EPA 365.1 Rev. 2.0	Total-P	0.20	Y	mg P/L	P411679	
	SM 5310 B-2011	Organic Carbon	9.8	Y	mg C/L	P411676	

Ref. Method and Comment:
EPA 350.1 Rev. 2.0: The sample was received unpreserved: pH > 2. Sample preserved in laboratory.
EPA 351.2 Rev. 2.0: The sample was received unpreserved: pH > 2. Sample preserved in laboratory.
EPA 353.2 Rev. 2.0: The sample was received unpreserved: pH > 2. Sample preserved in laboratory.
EPA 365.1 Rev. 2.0: Total-P: The sample was received unpreserved: pH > 2. Sample preserved in laboratory.
SM 5310 B-2011: The sample was received unpreserved: pH > 2. Sample preserved in laboratory.

Non-Conformance Report

NCR ID: 9314

Event(s)	Job(s)	Sample(s)	Test(s)
NW-DIST-2022-03-23-01	TLH-2022-03-23-48	2314108	

NCR Type: SHIPPING/RECEIVING **NCR Category: Preservation Not Intact**

Observation: Sample not preserved to pH < 2.

Resolution: Sample preserved in the laboratory on 03/24/2022 at 10:30.
H2SO4 Lot# SA1105060 | Expiration Date: 04/30/2022.

Authorized by/Date: Kyle Klug 3/25/2022

NCR ID: 9315

Event(s)	Job(s)	Sample(s)	Test(s)
NW-DIST-2022-03-23-01			

NCR Type: SHIPPING/RECEIVING **NCR Category: Samples arrived late**

Observation: Samples arrived late, samples received within the acceptable temperature range.

Resolution: Samples will be qualified as appropriate.
Customer contacted, email correspondence attached to sample submittal forms.
Biology and Chemistry supervisors were notified by email.

Authorized by/Date: Kyle Klug 3/25/2022

The Non-Conformance Report details exceptions or problems encountered with the events/jobs/samples/test.
Please address questions to:

Chemistry	Colin Wright	(850) 245-8085
Biology	Cheryl Swanson	(850) 245-8177

Quality Assurance Report
Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P411491

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P411500

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411618

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411620

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411778

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411781

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P411552

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P411553

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P411554

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P411702

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P411530

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P411531

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P411768

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P411769

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P411612

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P411613

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P411679

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

Reference Method: SM 2320 B-2011
Batch ID: P411603

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

Quality Assurance Report
Method Blank Results

Reference Method: SM 2320 B-2011
Batch ID: P411654

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

Reference Method: SM 2540 C-2011
Batch ID: P411801

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P411687

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P411606

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-2011
Batch ID: P411660

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P411676

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: DEP SOP: NU-094-1
Batch ID: P411491

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.6		P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P411500

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	96.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411618

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	98.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411620

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	99.4		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411778

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	98.0		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411781

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	98.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P411552

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	96.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P411553

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P411554

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P411702

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P411530

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P411531

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P411768

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P411769

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	94.2		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P411612

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: P411613

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P411679

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

Reference Method: SM 2320 B-2011
Batch ID: P411603

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.9		P	94 - 106

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P411654

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: P411606

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.2		P	93 - 104

Reference Method: SM 4500 F-C-2011
Batch ID: P411660

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.4		P	93 - 104

Reference Method: SM 5310 B-2011
Batch ID: P411676

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.4		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411618

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2313658	Chloride	97.8		P	90 - 110
2313881	Chloride	98.3		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411620

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2313658	Sulfate	98.0		P	90 - 110
2313881	Sulfate	98.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411778

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2314101	Chloride	97.3		P	90 - 110
2314130	Chloride	95.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411781

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2314101	Sulfate	97.9		P	90 - 110
2314130	Sulfate	96.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P411552

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2313159	Ammonia-N	98.0	98.4	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P411553

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2313374	Ammonia-N	97.2	105	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P411554

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2314156	Ammonia-N	96.8	99.2	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P411702

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2313375	Ammonia-N	98.8	98.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P411530

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P411530

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2313421	Kjeldahl Nitrogen	104	99.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P411531

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2313422	Kjeldahl Nitrogen	94.0	109	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P411768

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2313275	Kjeldahl Nitrogen	97.7	96.1	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P411769

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2313441	Kjeldahl Nitrogen	105	108	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P411612

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2313959	NO2NO3-N	99.0	99.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P411613

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2314108	NO2NO3-N	98.4	98.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P411679

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2314105	Total-P	105	102	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Batch ID: P411606

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2313609	Fluoride	97.4	96.3	P/P	92 - 107

Reference Method: SM 4500 F-C-2011
Batch ID: P411660

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2314296	Fluoride	98.0	98.0	P/P	92 - 107

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P411676

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2313887	Organic Carbon	99.4	103	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P411491

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2314102	Color (true)	0.163	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P411500

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2314006	Turbidity	5.04	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411618

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2313658	Chloride	0.519	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411620

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2313658	Sulfate	0.120	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411778

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2314101	Chloride	0.255	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411781

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2314101	Sulfate	0.784	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P411552

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2313159	Ammonia-N	0.311	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P411553

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2313374	Ammonia-N	6.37	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P411554

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2314156	Ammonia-N	2.19	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P411702

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2313375	Ammonia-N	0.474	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P411530

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2313421	Kjeldahl Nitrogen	3.49	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P411531

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2313422	Kjeldahl Nitrogen	11.9	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P411768

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2313275	Kjeldahl Nitrogen	1.41	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P411769

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2313441	Kjeldahl Nitrogen	2.40	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P411612

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2313959	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P411613

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2314108	NO2NO3-N	0.399	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P411679

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2314105	Total-P	2.72	Spike	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P411603

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2313609	Total Alkalinity	1.25	Sample	P	0 - 5.2

Reference Method: SM 2320 B-2011
Batch ID: P411654

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2314296	Total Alkalinity	1.54	Sample	P	0 - 5.2

Reference Method: SM 2540 C-2011
Batch ID: P411801

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2314075	TDS	8.22	Sample	P	0 - 10

Reference Method: SM 2540 D-2011
Batch ID: P411687

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2314075	TSS	12.9	Sample	F	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P411606

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2313609	Fluoride	0.968	Spike	P	0 - 2.1

Reference Method: SM 4500 F-C-2011
Batch ID: P411660

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2314296	Fluoride	0.0	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
Batch ID: P411676

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2313887	Organic Carbon	2.14	Spike	P	0 - 20

Quality Assurance Report
Precision

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A111070
Included Lab Sample IDs: 2314097, 2314098

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.6	99.0	P/P	90 - 110
Sulfate	100	99.4	P/P	90 - 110

Reference Method: DEP SOP: NU-094-1
Run ID: A111109
Included Lab Sample IDs: 2314097, 2314098, 2314099, 2314100, 2314101, 2314102

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	96.9	101	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A111119
Included Lab Sample IDs: 2314097, 2314098, 2314099, 2314100, 2314101, 2314102

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

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A111133
Included Lab Sample IDs: 2314103, 2314104, 2314105, 2314106, 2314107

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.8	98.3	P/P	90 - 110
Ammonia-N	98.2	98.4	P/P	90 - 110
Ammonia-N	98.4	97.8	P/P	90 - 110

Reference Method: SM 2320 B-2011
Run ID: A111156
Included Lab Sample IDs: 2314097, 2314098, 2314099, 2314100, 2314101

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.3	96.1	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Run ID: A111156
Included Lab Sample IDs: 2314097, 2314098, 2314099, 2314100, 2314101

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

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A111159
Included Lab Sample IDs: 2314103, 2314104, 2314105, 2314106, 2314107, 2314108

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: SM 2320 B-2011
Run ID: A111184
Included Lab Sample IDs: 2314102

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.6	97.0	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Run ID: A111184
Included Lab Sample IDs: 2314102

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A111196
Included Lab Sample IDs: 2314103, 2314104, 2314106

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	104	100	P/P	90 - 110
Kjeldahl Nitrogen	92.8	95.0	P/P	90 - 110

Reference Method: SM 5310 B-2011
Run ID: A111201
Included Lab Sample IDs: 2314103, 2314104, 2314105, 2314106, 2314107, 2314108

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	100	101	P/P	90 - 110
Organic Carbon	101	99.7	P/P	90 - 110
Organic Carbon	97.6	100	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A111208
Included Lab Sample IDs: 2314099, 2314100, 2314101, 2314102

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.9	98.8	P/P	90 - 110
Sulfate	99.1	99.7	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A111210
Included Lab Sample IDs: 2314108

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.6	99.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A111232
Included Lab Sample IDs: 2314108

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A111251
Included Lab Sample IDs: 2314103, 2314104, 2314105, 2314106, 2314107

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A111296
Included Lab Sample IDs: 2314105, 2314107, 2314108

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	100	101	P/P	90 - 110
Kjeldahl Nitrogen	101	103	P/P	90 - 110
Kjeldahl Nitrogen	96.0	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
DEP SOP: NU-094-1	Color (true)	98.6				0.163	
EPA 180.1 Rev. 2.0	Turbidity	96.7				5.04	
EPA 300.0 Rev. 2.1	Chloride	98.7	97.8	98.3		0.519	
	Chloride	98.0	97.3	95.8		0.255	
	Sulfate	99.4	98.0	98.2		0.120	
	Sulfate	98.0	97.9	96.2		0.784	
EPA 350.1 Rev. 2.0	Ammonia-N	96.0	98.0	98.4			0.311
	Ammonia-N	95.8	97.2	105			6.37
	Ammonia-N	95.8	96.8	99.2			2.19
	Ammonia-N	99.0	98.8	98.2			0.474
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	93.9	104	99.2			3.49
	Kjeldahl Nitrogen	102	94.0	109			11.9
	Kjeldahl Nitrogen	110	97.7	96.1			1.41
	Kjeldahl Nitrogen	94.2	105	108			2.40
EPA 353.2 Rev. 2.0	NO2NO3-N	100	99.0	99.0			0.0
	NO2NO3-N	101	98.4	98.9			0.399
EPA 365.1 Rev. 2.0	Total-P	103	105	102			2.72
SM 2320 B-2011	Total Alkalinity	98.9				1.25	
	Total Alkalinity	99.7				1.54	
SM 2540 C-2011	TDS					8.22	
SM 2540 D-2011	TSS					12.9	
SM 4500 F-C-2011	Fluoride	98.2	97.4	96.3			0.968
	Fluoride	98.4	98.0	98.0			0.0
SM 5310 B-2011	Organic Carbon	94.4	99.4	103			2.14

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2314097, 2314098, 2314099, 2314100, 2314101, 2314102
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2314097, 2314098, 2314099, 2314100, 2314101, 2314102
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2314097, 2314098, 2314099, 2314100, 2314101, 2314102
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2314097, 2314098, 2314099, 2314100, 2314101, 2314102
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2314103, 2314104, 2314105, 2314106, 2314107, 2314108
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2314103, 2314104, 2314105, 2314106, 2314107, 2314108
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2314103, 2314104, 2314105, 2314106, 2314107, 2314108
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2314103, 2314104, 2314105, 2314106, 2314107, 2314108
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2314097, 2314098, 2314099, 2314100, 2314101, 2314102
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2314097, 2314098, 2314099, 2314100, 2314101, 2314102
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2314097, 2314098, 2314099, 2314100, 2314101, 2314102
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2314097, 2314098, 2314099, 2314100, 2314101, 2314102
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2314103, 2314104, 2314105, 2314106, 2314107, 2314108

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	03/23/2022			03/23/2022 12:26	Samantha L Bates	2314097
	03/23/2022			03/23/2022 12:27	Samantha L Bates	2314098, 2314099
	03/23/2022			03/23/2022 12:28	Samantha L Bates	2314100
	03/23/2022			03/23/2022 12:30	Samantha L Bates	2314102
	03/23/2022			03/23/2022 12:32	Samantha L Bates	2314101
EPA 180.1 Rev. 2.0	03/23/2022			03/23/2022 11:45	Anna M. Plaviak	2314099
	03/23/2022			03/23/2022 11:48	Anna M. Plaviak	2314101
	03/23/2022			03/23/2022 11:49	Anna M. Plaviak	2314102
	03/23/2022			03/23/2022 11:51	Anna M. Plaviak	2314097
	03/23/2022			03/23/2022 11:52	Anna M. Plaviak	2314098
	03/23/2022			03/23/2022 11:53	Anna M. Plaviak	2314100
EPA 300.0 Rev. 2.1	03/23/2022			03/24/2022 21:55	James L Waggerby	2314097
	03/23/2022			03/24/2022 22:07	James L Waggerby	2314098
	03/23/2022			03/29/2022 12:03	Anna M. Plaviak	2314101
	03/23/2022			03/29/2022 12:52	Anna M. Plaviak	2314099
	03/23/2022			03/29/2022 13:04	Anna M. Plaviak	2314100
	03/23/2022			03/29/2022 13:16	Anna M. Plaviak	2314102
EPA 350.1 Rev. 2.0	03/23/2022			03/24/2022 13:05	Judith K. Clark	2314105
	03/23/2022			03/24/2022 13:12	Judith K. Clark	2314107
	03/23/2022			03/24/2022 13:36	Judith K. Clark	2314104
	03/23/2022			03/24/2022 13:40	Judith K. Clark	2314103
	03/23/2022			03/24/2022 14:02	Judith K. Clark	2314106
	03/23/2022			03/29/2022 11:09	Ping Hua	2314108
EPA 351.2 Rev. 2.0	03/23/2022	03/25/2022 10:06	Samantha L Bates	03/28/2022 14:26	Alexandra J Mattheus	2314103
	03/23/2022	03/25/2022 10:06	Samantha L Bates	03/28/2022 14:54	Alexandra J Mattheus	2314104
	03/23/2022	03/25/2022 10:06	Samantha L Bates	03/28/2022 14:56	Alexandra J Mattheus	2314106
	03/23/2022	03/31/2022 11:24	Samantha L Bates	04/04/2022 12:44	Alexandra J Mattheus	2314105
	03/23/2022	03/31/2022 11:24	Samantha L Bates	04/04/2022 12:48	Alexandra J Mattheus	2314107
	03/23/2022	03/31/2022 11:24	Samantha L Bates	04/04/2022 14:17	Alexandra J Mattheus	2314108
EPA 353.2 Rev. 2.0	03/23/2022			03/24/2022 18:19	Nathaniel J Jones	2314103
	03/23/2022			03/24/2022 18:20	Nathaniel J Jones	2314104
	03/23/2022			03/24/2022 18:22	Nathaniel J Jones	2314105
	03/23/2022			03/24/2022 18:23	Nathaniel J Jones	2314106
	03/23/2022			03/24/2022 18:24	Nathaniel J Jones	2314107
	03/23/2022			03/24/2022 18:31	Nathaniel J Jones	2314108
EPA 365.1 Rev. 2.0	03/23/2022	03/29/2022 16:02	Simonne.V. Calhoun	03/30/2022 12:41	Sarah A Nixon	2314108
	03/23/2022	03/29/2022 16:02	Simonne.V. Calhoun	03/31/2022 11:52	James L Waggerby	2314105
	03/23/2022	03/29/2022 16:02	Simonne.V. Calhoun	03/31/2022 12:00	James L Waggerby	2314103
	03/23/2022	03/29/2022 16:02	Simonne.V. Calhoun	03/31/2022 12:01	James L Waggerby	2314104
	03/23/2022	03/29/2022 16:02	Simonne.V. Calhoun	03/31/2022 12:02	James L Waggerby	2314106

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	03/23/2022	03/29/2022 16:02	Simonne.V. Calhoun	03/31/2022 12:03	James L Waggerby	2314107
SM 2320 B-2011	03/23/2022			03/25/2022 05:43	Dale L. Simmons	2314097
	03/23/2022			03/25/2022 05:56	Dale L. Simmons	2314098
	03/23/2022			03/25/2022 06:07	Dale L. Simmons	2314099
	03/23/2022			03/25/2022 06:14	Dale L. Simmons	2314100
	03/23/2022			03/25/2022 06:26	Dale L. Simmons	2314101
	03/23/2022			03/25/2022 18:59	Dale L. Simmons	2314102
SM 2540 C-2011	03/23/2022			03/25/2022 16:08	Yijie Li	2314097, 2314098, 2314099, 2314100, 2314101, 2314102
SM 2540 D-2011	03/23/2022			03/25/2022 16:08	Yijie Li	2314097, 2314098, 2314099, 2314100, 2314101, 2314102
SM 4500 F-C-2011	03/23/2022			03/25/2022 05:43	Dale L. Simmons	2314097
	03/23/2022			03/25/2022 05:56	Dale L. Simmons	2314098
	03/23/2022			03/25/2022 06:07	Dale L. Simmons	2314099
	03/23/2022			03/25/2022 06:14	Dale L. Simmons	2314100
	03/23/2022			03/25/2022 06:26	Dale L. Simmons	2314101
	03/23/2022			03/25/2022 18:59	Dale L. Simmons	2314102
SM 5310 B-2011	03/23/2022			03/25/2022 16:03	Khloe J Berg	2314107
	03/23/2022			03/25/2022 20:04	Khloe J Berg	2314103
	03/23/2022			03/25/2022 20:19	Khloe J Berg	2314104
	03/23/2022			03/25/2022 20:34	Khloe J Berg	2314105
	03/23/2022			03/25/2022 20:49	Khloe J Berg	2314106
	03/23/2022			03/25/2022 21:34	Khloe J Berg	2314108