

Chemical Analysis Report

SO-DIST-2023-11-09-01

Florida DEP Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

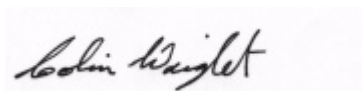
Event Description: **2023 SMP: Sheldon J. Plankton**
Request ID: **RQ-2023-11-13-43**
Customer: **SO-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FLDEP South District Office
2295 Victoria Ave. Suite 314
Fort Myers, FL 33901-3381
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Certified by: Colin Wright, Program Administrator

Date Certified: 28-NOV-2023 09:30

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light gray rectangular background.

Case Narrative

Unless otherwise noted, all samples included in this report were received in accordance with protocols referenced in Chapter 62-160, Florida Administrative Code (F.A.C.). Results published in this report pertain only to the samples as submitted to, and received by the laboratory. All times in this report are adjusted to the applicable Eastern Time Zone (EST or EDT).

Results for the following analytical groups are included in this report: Nutrients and Pesticides.

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: BONNET CREEK AT SR 64

Collection Date/Time: 11/08/2023 10:05

Field ID: G4SD0107

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2450512	DEP SOP: NU-094-1	Color (true)	220		PCU	P437632	
	EPA 180.1 Rev. 2.0	Turbidity	3.6		NTU	P437639	
	EPA 300.0 Rev. 2.1	Chloride	22		mg Cl/L	P437997	
		Sulfate	16		mg SO4/L	P438001	
	SM 2320 B-2011	Total Alkalinity	22		mg CaCO3/L	P438024	
	SM 2540 C-2015	TDS	151		mg/L	P438111	
	SM 2540 D-2015	TSS	5	I	mg/L	P437948	
2450513	SM 4500-F- C-2011	Fluoride	0.089	I	mg F/L	P438028	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.012		mg N/L	P438131	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.93		mg N/L	P437722	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.19		mg N/L	P437893	
	EPA 365.1 Rev. 2.0	Total-P	0.57		mg P/L	P437868	
2450520	SM 5310 B-2011	Organic Carbon	23		mg C/L	P438144	
	EPA 8321B	2,4-D	0.0020	U	ug/L	P437568	
		Acesulfame K	0.10	U	ug/L	P437618	
		2,4,5-T	0.0040	U	ug/L	P437568	
		AMPA	0.28	I	ug/L	P437618	
		Acetaminophen	0.0080	U	ug/L	P437568	
		Endothall	0.25	U	ug/L	P437618	
		Acetamiprid	0.0020	U	ug/L	P437568	MS, RPD
		Glufosinate	0.10	U	ug/L	P437618	
		Glyphosate	0.10	U	ug/L	P437618	
		Afidopyropen	0.0020	U	ug/L	P437568	MS, RPD
		Sucralose	0.049		ug/L	P437618	
		Bentazon	0.021		ug/L	P437568	MS
		Benzovindiflupyr	0.0020	U	ug/L	P437568	
		Carbamazepine	8.0E-04	U	ug/L	P437568	
		Clothianidin	0.0046	I	ug/L	P437568	
		Dinotefuran	0.0020	U	ug/L	P437568	
		Diuron	0.0020	U	ug/L	P437568	
		Fenuron	0.032	U	ug/L	P437568	MS
		Fluridone	8.0E-04	U	ug/L	P437568	
		Imazapyr	0.0040	U	ug/L	P437568	
		Hydrocodone	0.0020	U	ug/L	P437568	
		Ibuprofen	0.080	U	ug/L	P437568	
		Imidacloprid	0.011		ug/L	P437568	
		Linuron	0.0040	U	ug/L	P437568	
		Mandestrobin	0.0020	U	ug/L	P437568	
		MCP	0.0020	U	ug/L	P437568	
		Naproxen	0.0080	U	ug/L	P437568	
		Primidone	0.0040	U	ug/L	P437568	
		Pyraclostrobin	0.0020	U	ug/L	P437568	
		Silvex	0.0040	U	ug/L	P437568	
		Thiamethoxam	0.034		ug/L	P437568	

Field ID: G4SD0107

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2450520	EPA 8321B	Tolfenpyrad	0.0020	U	ug/L	P437568	
		Triclopyr	0.0040	U	ug/L	P437568	

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: LAKE GLENADA

Collection Date/Time: 11/08/2023 10:45

Field ID: G4SD0179

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2450509	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P438131	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P437722	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P437894	
	EPA 365.1 Rev. 2.0	Total-P	0.062		mg P/L	P437794	MS
	SM 5310 B-2011	Organic Carbon	11		mg C/L	P438144	
2450689	DEP SOP: NU-094-1	Color (true)	36	A	PCU	P437635	
	EPA 180.1 Rev. 2.0	Turbidity	17		NTU	P437639	
	EPA 300.0 Rev. 2.1	Chloride	21		mg Cl/L	P437997	
		Sulfate	16		mg SO4/L	P438001	
	SM 2320 B-2011	Total Alkalinity	33		mg CaCO3/L	P438024	
	SM 2540 C-2015	TDS	120		mg/L	P438111	
	SM 2540 D-2015	TSS	6	I	mg/L	P437948	
	SM 4500-F- C-2011	Fluoride	0.082	I	mg F/L	P438028	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: LITTLE BONNET LAKE AT MIDDLE

Collection Date/Time: 11/08/2023 11:30

Field ID: G4SD0169

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2450507	DEP SOP: NU-094-1	Color (true)	17		PCU	P437632	
	EPA 180.1 Rev. 2.0	Turbidity	13		NTU	P437639	
	EPA 300.0 Rev. 2.1	Chloride	18		mg Cl/L	P437997	
		Sulfate	34		mg SO4/L	P438001	
	SM 2320 B-2011	Total Alkalinity	34		mg CaCO3/L	P438024	
	SM 2540 C-2015	TDS	145		mg/L	P438111	
	SM 2540 D-2015	TSS	13	I	mg/L	P437948	
	SM 4500-F- C-2011	Fluoride	0.076	I	mg F/L	P438028	
2450510	EPA 350.1 Rev. 2.0	Ammonia-N	0.034		mg N/L	P438131	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.6		mg N/L	P437722	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.78		mg N/L	P437894	
	EPA 365.1 Rev. 2.0	Total-P	0.024		mg P/L	P437868	
	SM 5310 B-2011	Organic Carbon	10		mg C/L	P438144	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample. The PQL was elevated because of sample matrix interference.

Sample Location: BONNET LAKE AT MIDDLE

Collection Date/Time: 11/08/2023 12:10

Field ID: G4SD0170

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2450508	DEP SOP: NU-094-1	Color (true)	36		PCU	P437632	
	EPA 180.1 Rev. 2.0	Turbidity	13		NTU	P437639	
	EPA 300.0 Rev. 2.1	Chloride	19		mg Cl/L	P437997	
		Sulfate	29		mg SO4/L	P438001	
	SM 2320 B-2011	Total Alkalinity	21		mg CaCO3/L	P438024	
	SM 2540 C-2015	TDS	120		mg/L	P438111	
	SM 2540 D-2015	TSS	10	I	mg/L	P437948	
	SM 4500-F- C-2011	Fluoride	0.076	I	mg F/L	P438028	
2450511	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P438131	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P437722	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.20		mg N/L	P437893	
	EPA 365.1 Rev. 2.0	Total-P	0.034		mg P/L	P437868	
	SM 5310 B-2011	Organic Carbon	10		mg C/L	P438144	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

SM 2540 D-2015: 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: P437632

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: DEP SOP: NU-094-1
Batch ID: P437635

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P437639

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437997

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438001

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438131

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437722

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P437893

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P437894

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: P437794

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P437868

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

Reference Method: EPA 8321B
Batch ID: P437568

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.032	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.080	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Silvex	0.0040	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P437618

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
AMPA	0.10	U	ug/L
Endothall	0.25	U	ug/L
Glufosinate	0.10	U	ug/L
Glyphosate	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 2320 B-2011
Batch ID: P438024

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

Reference Method: SM 2540 C-2015
Batch ID: P438111

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P437948

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P438028

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P438144

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: P437632

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.3		P	90 - 110

Reference Method: DEP SOP: NU-094-1
Batch ID: P437635

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	100		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P437639

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437997

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438001

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438131

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	92.2		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437722

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P437893

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: P437894

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P437794

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: P437868

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

Reference Method: EPA 8321B
Batch ID: P437568

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	79.5		P	40 - 150
2,4,5-T	71.3		P	40 - 150
Acetaminophen	87.4		P	30 - 150
Acetamiprid	86.1		P	40 - 150
Afidopyropen	48.6		P	30 - 150
Bentazon	65.3		P	30 - 150
Benzovindiflupyr	84.5		P	40 - 150
Carbamazepine	70.9		P	40 - 150
Clothianidin	94.0		P	40 - 150
Dinotefuran	98.8		P	40 - 150
Diuron	71.7		P	40 - 150
Fenuron	94.2		P	40 - 150
Fluridone	87.8		P	40 - 150
Hydrocodone	98.0		P	40 - 150
Ibuprofen	58.7		P	40 - 150
Imazapyr	79.4		P	40 - 150
Imidacloprid	88.9		P	40 - 150
Linuron	71.7		P	40 - 150
Mandestrobin	96.2		P	40 - 150
MCPP	77.7		P	40 - 150
Naproxen	54.1		P	40 - 150
Primidone	85.5		P	40 - 150
Pyraclostrobin	83.0		P	40 - 150
Silvex	75.6		P	40 - 150
Thiamethoxam	85.8		P	40 - 150
Tolfenpyrad	56.5		P	30 - 150
Triclopyr	77.3		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P437618

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	111		P	40 - 150
AMPA	102		P	40 - 160
Endothall	113		P	40 - 160
Glufosinate	101		P	40 - 160
Glyphosate	101		P	40 - 160
Sucralose	101		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P438024

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	92 - 105

Reference Method: SM 2540 C-2015
Batch ID: P438111

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	93.6		P	85 - 115

Reference Method: SM 2540 D-2015
Batch ID: P437948

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	109		P	85 - 115

Reference Method: SM 4500-F- C-2011
Batch ID: P438028

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	103		P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P438144

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.9		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437997

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2450432	Chloride	104		P	90 - 110
2450529	Chloride	104		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438001

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2450432	Sulfate	103		P	90 - 110
2450529	Sulfate	103		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438131

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2450134	Ammonia-N	95.0	95.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437722

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2450510	Kjeldahl Nitrogen	97.1	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P437893

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2447617	NO2NO3-N	99.0	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P437894

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2448515	NO2NO3-N	97.2	98.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P437794

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2450435	Total-P	109	111	P/F	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P437868

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2450531	Total-P	107	109	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P437568

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2450109	2,4-D	86.0	90.9	P/P	40 - 150
2450109	2,4,5-T	75.1	85.3	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P437568

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2450109	Acetaminophen	68.5	67.7	P/P	30 - 150
2450109	Acetamiprid	3.75	11.1	F/F	40 - 150
2450109	Afidopyropen	20.7	42.0	F/P	30 - 150
2450109	Bentazon	13.7	16.4	F/F	30 - 150
2450109	Benzovindiflupyr	77.6	81.5	P/P	40 - 150
2450109	Carbamazepine	42.7	44.1	P/P	40 - 150
2450109	Clothianidin	49.3	50.3	P/P	40 - 150
2450109	Dinotefuran	46.8	47.5	P/P	40 - 150
2450109	Diuron	40.4	44.0	P/P	40 - 150
2450109	Fenuron	35.3	35.7	F/F	40 - 150
2450109	Fluridone	60.6	64.6	P/P	40 - 150
2450109	Hydrocodone	47.7	48.1	P/P	40 - 150
2450109	Ibuprofen	64.1	60.0	P/P	40 - 150
2450109	Imazapyr	72.2	73.2	P/P	40 - 150
2450109	Imidacloprid	69.0	68.8	P/P	40 - 150
2450109	Linuron	61.8	57.2	P/P	40 - 150
2450109	Mandestrobin	80.3	82.4	P/P	40 - 150
2450109	MCPP	78.7	82.8	P/P	40 - 150
2450109	Naproxen	73.0	90.7	P/P	40 - 150
2450109	Primidone	54.0	53.0	P/P	40 - 150
2450109	Pyraclostrobin	76.9	77.8	P/P	40 - 150
2450109	Silvex	87.4	89.5	P/P	40 - 150
2450109	Thiamethoxam	42.2	43.4	P/P	40 - 150
2450109	Tolfenpyrad	53.0	56.2	P/P	30 - 150
2450109	Triclopyr	72.4	82.8	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P437618

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2450389	Acesulfame K	146	145	P/P	40 - 150
2450389	AMPA	91.7	88.9	P/P	40 - 160
2450389	Endothall	104	98.5	P/P	40 - 160
2450389	Glufosinate	95.2	96.8	P/P	40 - 160
2450389	Glyphosate	97.0	94.4	P/P	40 - 160
2450389	Sucralose	107	111	P/P	40 - 150

Reference Method: SM 4500-F- C-2011

Batch ID: P438028

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2450787	Fluoride	102	102	P/P	94 - 106

Reference Method: SM 5310 B-2011

Batch ID: P438144

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2450488	Organic Carbon	92.3	93.0	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P437632

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450454	Color (true)	8.19	Sample	P	0 - 20

Reference Method: DEP SOP: NU-094-1
Batch ID: P437635

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450689	Color (true)	10.4	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P437639

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450378	Turbidity	1.83	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437997

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450432	Chloride	0.273	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438131

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450134	Ammonia-N	0.582	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437722

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450510	Kjeldahl Nitrogen	3.63	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P437893

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2447617	NO2NO3-N	1.01	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P437894

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2448515	NO2NO3-N	0.909	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P437794

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450435	Total-P	1.55	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P437868

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450531	Total-P	1.73	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P437568

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450109	2,4-D	5.57	Spike	P	0 - 30
2450109	2,4,5-T	12.7	Spike	P	0 - 30
2450109	Acetaminophen	1.25	Spike	P	0 - 30
2450109	Acetamiprid	99.3	Spike	F	0 - 30
2450109	Afidopyropen	68.1	Spike	F	0 - 30
2450109	Bentazon	4.57	Spike	P	0 - 30
2450109	Benzovindiflupyr	4.90	Spike	P	0 - 30
2450109	Carbamazepine	3.19	Spike	P	0 - 30
2450109	Clothianidin	2.02	Spike	P	0 - 30
2450109	Dinotefuran	1.44	Spike	P	0 - 30
2450109	Diuron	8.74	Spike	P	0 - 30
2450109	Fenuron	1.32	Spike	P	0 - 30
2450109	Fluridone	6.45	Spike	P	0 - 30
2450109	Hydrocodone	0.731	Spike	P	0 - 30
2450109	Ibuprofen	6.67	Spike	P	0 - 30
2450109	Imazapyr	0.961	Spike	P	0 - 30
2450109	Imidacloprid	0.293	Spike	P	0 - 30
2450109	Linuron	7.61	Spike	P	0 - 30
2450109	Mandestrobin	2.63	Spike	P	0 - 30
2450109	MCPP	5.11	Spike	P	0 - 30
2450109	Naproxen	21.6	Spike	P	0 - 30
2450109	Primidone	1.82	Spike	P	0 - 30
2450109	Pyraclostrobin	1.21	Spike	P	0 - 30
2450109	Silvex	2.36	Spike	P	0 - 30
2450109	Thiamethoxam	2.94	Spike	P	0 - 30
2450109	Tolfenpyrad	5.86	Spike	P	0 - 30
2450109	Triclopyr	13.4	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P437618

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450389	Acesulfame K	0.482	Spike	P	0 - 30
2450389	AMPA	3.10	Spike	P	0 - 30
2450389	Endothall	5.79	Spike	P	0 - 30
2450389	Glufosinate	1.67	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P437618

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450389	Glyphosate	2.69	Spike	P	0 - 30
2450389	Sucralose	3.55	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P438024

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450787	Total Alkalinity	0.292	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P438111

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450405	TDS	2.47	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P438028

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450787	Fluoride	0.0	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2011
Batch ID: P438144

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450488	Organic Carbon	0.689	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2450520
Field Sample ID: G4SD0107

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	78.7	P	30 - 160
EPA 8321B	Acetaminophen-d4	72.0	P	30 - 160
EPA 8321B	Carbamazepine-d10	53.4	P	30 - 160
EPA 8321B	Diuron-d6	42.2	P	30 - 160
EPA 8321B	Endothall-d6	123	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	100	P	30 - 160
EPA 8321B	Ibuprofen-d3	66.5	P	30 - 160
EPA 8321B	Primidone-d5	48.5	P	30 - 160
EPA 8321B	Sucralose-d6	94.3	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A122660

Included Lab Sample IDs: 2450507, 2450508, 2450512

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.2	100	P/P	90 - 110

Reference Method: DEP SOP: NU-094-1

Run ID: A122664

Included Lab Sample IDs: 2450689

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.5	97.9	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A122666

Included Lab Sample IDs: 2450507, 2450508, 2450512, 2450689

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

Reference Method: EPA 8321B

Run ID: A122711

Included Lab Sample IDs: 2450520

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	102	97.6	P/P	60 - 160
Endothall	116	118	P/P	60 - 160
Glufosinate	105	103	P/P	60 - 160
Glyphosate	95.0	97.2	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A122727

Included Lab Sample IDs: 2450520

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	89.7	90.9	P/P	50 - 150
2,4,5-T	85.8	97.4	P/P	50 - 150
Acetaminophen	107	107	P/P	60 - 160
Acetamiprid	110	110	P/P	50 - 150
Afidopyropen	95.2	83.6	P/P	50 - 150
Bentazon	85.1	88.7	P/P	50 - 160
Benzovindiflupyr	105	103	P/P	50 - 150
Carbamazepine	103	104	P/P	60 - 150
Clothianidin	107	107	P/P	60 - 150
Dinotefuran	109	111	P/P	50 - 150
Diuron	102	103	P/P	60 - 160
Fenuron	105	106	P/P	60 - 150
Fluridone	110	103	P/P	60 - 160
Hydrocodone	114	112	P/P	60 - 150
Ibuprofen	95.6	65.4	P/P	50 - 160
Imazapyr	88.2	90.9	P/P	50 - 150
Imidacloprid	99.8	102	P/P	60 - 150
Linuron	109	106	P/P	60 - 150
Mandestrobin	110	106	P/P	50 - 150
MCPP	88.5	92.5	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A122727
Included Lab Sample IDs: 2450520

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Naproxen	104	77.6	P/P	50 - 160
Primidone	93.4	95.6	P/P	60 - 150
Pyraclostrobin	105	104	P/P	60 - 150
Silvex	92.6	86.1	P/P	50 - 150
Thiamethoxam	107	107	P/P	50 - 150
Tolfenpyrad	98.9	97.4	P/P	60 - 150
Triclopyr	91.4	86.2	P/P	50 - 150

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A122728
Included Lab Sample IDs: 2450509, 2450510, 2450511, 2450513

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	105	106	P/P	90 - 110
Kjeldahl Nitrogen	107	105	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A122733
Included Lab Sample IDs: 2450520

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	114	130	P/P	60 - 160
Sucralose	103	94.3	P/P	60 - 160

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A122736
Included Lab Sample IDs: 2450507, 2450508, 2450512, 2450689

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	103	101	P/P	90 - 110
Sulfate	102	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A122763
Included Lab Sample IDs: 2450509

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

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A122766
Included Lab Sample IDs: 2450509, 2450510, 2450511, 2450513

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	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: A122794

Included Lab Sample IDs: 2450513

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A122797

Included Lab Sample IDs: 2450510, 2450511

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.8	98.5	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A122818

Included Lab Sample IDs: 2450507, 2450508, 2450512, 2450689

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	97.6	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A122818

Included Lab Sample IDs: 2450507, 2450508, 2450512, 2450689

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A122869

Included Lab Sample IDs: 2450509, 2450510, 2450511, 2450513

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.0	96.3	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A122873

Included Lab Sample IDs: 2450509, 2450510, 2450511, 2450513

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.0	95.4	P/P	90 - 110
Organic Carbon	95.3	95.0	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		LCS	Precision	MS
						SMP	
DEP SOP: NU-094-1	Color (true)	99.3				8.19	
	Color (true)	100				10.4	
EPA 180.1 Rev. 2.0	Turbidity	104				1.83	
EPA 300.0 Rev. 2.1	Chloride	103	104	104		0.273	
	Sulfate	103	103	103			
EPA 350.1 Rev. 2.0	Ammonia-N	92.2	95.0	95.6			0.582
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	109	97.1	104			3.63
EPA 353.2 Rev. 2.0	NO2NO3-N	100	99.0	100			1.01
	NO2NO3-N	100	97.2	98.2			0.909
EPA 365.1 Rev. 2.0	Total-P	108	109	111			1.55
	Total-P	104	107	109			1.73
EPA 8321B	2,4-D	79.5	86.0	90.9			5.57
	2,4,5-T	71.3	75.1	85.3			12.7
	Acesulfame K	111	146	145			0.482
	Acetaminophen	87.4	68.5	67.7			1.25
	Acetamiprid	86.1	3.75	11.1			99.3
	Afidopyropen	48.6	20.7	42.0			68.1
	AMPA	102	91.7	88.9			3.10
	Bentazon	65.3	13.7	16.4			4.57
	Benzovindiflupyr	84.5	77.6	81.5			4.90
	Carbamazepine	70.9	42.7	44.1			3.19
	Clothianidin	94.0	49.3	50.3			2.02
	Dinotefuran	98.8	46.8	47.5			1.44
	Diuron	71.7	40.4	44.0			8.74
	Endothall	113	104	98.5			5.79
	Fenuron	94.2	35.3	35.7			1.32
	Fluridone	87.8	60.6	64.6			6.45
	Glufosinate	101	95.2	96.8			1.67
	Glyphosate	101	97.0	94.4			2.69
	Hydrocodone	98.0	47.7	48.1			0.731
	Ibuprofen	58.7	64.1	60.0			6.67
	Imazapyr	79.4	72.2	73.2			0.961
	Imidacloprid	88.9	69.0	68.8			0.293
	Linuron	71.7	61.8	57.2			7.61
	Mandestrobin	96.2	80.3	82.4			2.63
	MCPP	77.7	78.7	82.8			5.11
	Naproxen	54.1	73.0	90.7			21.6
	Primidone	85.5	54.0	53.0			1.82
	Pyraclostrobin	83.0	76.9	77.8			1.21
	Silvex	75.6	87.4	89.5			2.36
	Sucralose	101	107	111			3.55
	Thiamethoxam	85.8	42.2	43.4			2.94
	Tolfenpyrad	56.5	53.0	56.2			5.86
	Triclopyr	77.3	72.4	82.8			13.4
SM 2320 B-2011	Total Alkalinity	103				0.292	
SM 2540 C-2015	TDS	93.6				2.47	
SM 2540 D-2015	TSS	109					
SM 4500-F- C-2011	Fluoride	103	102	102			0.0
SM 5310 B-2011	Organic Carbon	94.9	92.3	93.0			0.689

Reference Method Descriptions

Method	Description	Associated Samples
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Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2450507, 2450508, 2450512, 2450689
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2450507, 2450508, 2450512, 2450689
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2450507, 2450508, 2450512, 2450689
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2450507, 2450508, 2450512, 2450689
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2450509, 2450510, 2450511, 2450513
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2450509, 2450510, 2450511, 2450513
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2450509, 2450510, 2450511, 2450513
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2450509, 2450510, 2450511, 2450513
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2450520
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2450507, 2450508, 2450512, 2450689
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2450507, 2450508, 2450512, 2450689
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2450507, 2450508, 2450512, 2450689
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2450507, 2450508, 2450512, 2450689
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2450509, 2450510, 2450511, 2450513

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	11/09/2023			11/09/2023 13:43	Chandler E Cox	2450507
	11/09/2023			11/09/2023 13:44	Chandler E Cox	2450508
	11/09/2023			11/09/2023 13:45	Chandler E Cox	2450512
	11/09/2023			11/09/2023 14:23	Chandler E Cox	2450689
EPA 180.1 Rev. 2.0	11/09/2023			11/09/2023 13:46	Samantha L Bates	2450507
	11/09/2023			11/09/2023 13:47	Samantha L Bates	2450508
	11/09/2023			11/09/2023 13:49	Samantha L Bates	2450512
	11/09/2023			11/09/2023 13:56	Samantha L Bates	2450689
EPA 300.0 Rev. 2.1	11/09/2023			11/17/2023 19:06	James L Waggeberby	2450507
	11/09/2023			11/17/2023 19:21	James L Waggeberby	2450508
	11/09/2023			11/17/2023 19:37	James L Waggeberby	2450512
	11/09/2023			11/17/2023 20:37	James L Waggeberby	2450689
EPA 350.1 Rev. 2.0	11/09/2023			11/21/2023 12:33	Khloe J Berg	2450509
	11/09/2023			11/21/2023 12:35	Khloe J Berg	2450510
	11/09/2023			11/21/2023 12:36	Khloe J Berg	2450511
	11/09/2023			11/21/2023 12:37	Khloe J Berg	2450513
EPA 351.2 Rev. 2.0	11/09/2023	11/14/2023 11:29	Simonne.V. Calhoun	11/15/2023 10:22	Samantha L Bates	2450509
	11/09/2023	11/14/2023 11:29	Simonne.V. Calhoun	11/15/2023 10:24	Samantha L Bates	2450510
	11/09/2023	11/14/2023 11:29	Simonne.V. Calhoun	11/15/2023 10:29	Samantha L Bates	2450511
	11/09/2023	11/14/2023 11:29	Simonne.V. Calhoun	11/15/2023 10:33	Samantha L Bates	2450513
EPA 353.2 Rev. 2.0	11/09/2023			11/15/2023 13:32	Fadila Guebre	2450511
	11/09/2023			11/15/2023 13:33	Fadila Guebre	2450513
	11/09/2023			11/15/2023 14:28	Fadila Guebre	2450509
	11/09/2023			11/15/2023 14:29	Fadila Guebre	2450510
EPA 365.1 Rev. 2.0	11/09/2023	11/15/2023 11:07	Adam P Silver	11/16/2023 11:12	James L Waggeberby	2450509
	11/09/2023	11/16/2023 12:40	Adam P Silver	11/17/2023 12:37	Chandler E Cox	2450513
	11/09/2023	11/16/2023 12:40	Adam P Silver	11/17/2023 13:28	Chandler E Cox	2450510
	11/09/2023	11/16/2023 12:40	Adam P Silver	11/17/2023 13:29	Chandler E Cox	2450511
EPA 8321B	11/09/2023	11/13/2023 11:00	Hoor Shaik	11/15/2023 07:41	Juyoung Kim	2450520
	11/09/2023	11/14/2023 08:00	Tae K Lee	11/14/2023 13:15	Hana Lee	2450520
	11/09/2023	11/14/2023 08:00	Tae K Lee	11/14/2023 18:36	Hana Lee	2450520
SM 2320 B-2011	11/09/2023			11/17/2023 01:10	Dale L. Simmons	2450507
	11/09/2023			11/17/2023 01:23	Dale L. Simmons	2450508
	11/09/2023			11/17/2023 01:36	Dale L. Simmons	2450512
	11/09/2023			11/17/2023 02:38	Dale L. Simmons	2450689
SM 2540 C-2015	11/09/2023			11/13/2023 16:04	Yijie Li	2450507, 2450508, 2450512, 2450689
SM 2540 D-2015	11/09/2023			11/13/2023 16:04	Yijie Li	2450507, 2450508, 2450512, 2450689
SM 4500-F- C-2011	11/09/2023			11/17/2023 01:10	Dale L. Simmons	2450507
	11/09/2023			11/17/2023 01:23	Dale L. Simmons	2450508
	11/09/2023			11/17/2023 01:36	Dale L. Simmons	2450512

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 4500-F- C-2011	11/09/2023			11/17/2023 02:38	Dale L. Simmons	2450689
SM 5310 B-2011	11/09/2023			11/21/2023 14:37	Kenneth H Lee	2450509
	11/09/2023			11/21/2023 15:04	Kenneth H Lee	2450510
	11/09/2023			11/21/2023 15:18	Kenneth H Lee	2450511
	11/09/2023			11/21/2023 15:59	Kenneth H Lee	2450513