

Chemical Analysis Report

SO-DIST-2022-12-15-01

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

Event Description: **2022 SMP : Bonnet + Gopher**
Request ID: **RQ-2022-12-05-51**
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: 09-JAN-2023 15:23

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light-colored 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: Metals, 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 @ SR 64

Collection Date/Time: 12/14/2022 10:30

Field ID: G4SD0107

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2375633	DEP SOP: NU-094-1	Color (true)	240		PCU	P423606	
	EPA 180.1 Rev. 2.0	Turbidity	2.1		NTU	P423623	
	EPA 300.0 Rev. 2.1	Chloride	22		mg Cl/L	P423805	
		Sulfate	17		mg SO4/L	P423808	
	SM 2320 B-2011	Total Alkalinity	21		mg CaCO3/L	P423946	
	SM 2540 C-2015	TDS	135		mg/L	P424055	
	SM 2540 D-2015	TSS	4	I	mg/L	P423855	
2375634	SM 4500-F- C-2011	Fluoride	0.083	I	mg F/L	P423951	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.018		mg N/L	P424075	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.92		mg N/L	P423749	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.14		mg N/L	P423831	
	EPA 365.1 Rev. 2.0	Total-P	0.66		mg P/L	P423660	
2375638	SM 5310 B-2011	Organic Carbon	24		mg C/L	P423699	
	EPA 8321B	2,4-D	0.0020	U	ug/L	P423628	
		Acesulfame K	0.10	U	ug/L	P423561	
		2,4,5-T	0.0040	U	ug/L	P423628	
		AMPA	0.35	I	ug/L	P423561	
		Acetaminophen	0.0080	U	ug/L	P423628	
		Acetamiprid	0.0020	U	ug/L	P423628	
		Endothall	0.25	U	ug/L	P423561	
		Glufosinate	0.10	U	ug/L	P423561	
		Glyphosate	0.10	U	ug/L	P423561	
		Afidopyropen	0.0020	U	ug/L	P423628	
		Bentazon	1.0E-03	I	ug/L	P423628	
		Sucralose	0.034	I	ug/L	P423561	
		Benzovindiflupyr	0.0020	U	ug/L	P423628	
		Carbamazepine	8.0E-04	U	ug/L	P423628	
		Clothianidin	0.017		ug/L	P423628	
		Dinotefuran	0.0020	U	ug/L	P423628	
		Diuron	0.0020	U	ug/L	P423628	
		Fenuron	0.032	U	ug/L	P423628	
		Fluridone	8.0E-04	U	ug/L	P423628	
		Imazapyr	0.0040	U	ug/L	P423628	
		Hydrocodone	0.0020	U	ug/L	P423628	
		Ibuprofen	0.20	U	ug/L	P423628	
		Imidacloprid	0.037		ug/L	P423628	
		Linuron	0.0040	U	ug/L	P423628	
		Mandestrobin	0.0020	U	ug/L	P423628	
		MCPP	0.0040	U	ug/L	P423628	
		Naproxen	0.0080	U	ug/L	P423628	
		Primidone	0.0040	U	ug/L	P423628	
		Pyraclostrobin	0.0020	U	ug/L	P423628	
		Silvex	0.0040	U	ug/L	P423628	
		Thiamethoxam	0.12		ug/L	P423628	

Field ID: G4SD0107

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2375638	EPA 8321B	Tolfenpyrad	0.0020	U	ug/L	P423628	
		Triclopyr	0.0040	U	ug/L	P423628	
2375639	EPA 200.7 Rev. 4.4	Aluminum	130	I	ug/L	P423637	
		Calcium	10.4		mg/L	P423637	
		Iron	160		ug/L	P423637	
		Magnesium	5.31		mg/L	P423637	
		Manganese	7.5		ug/L	P423637	
		Potassium	10.1		mg/L	P423637	
		Sodium	7.0		mg/L	P423637	
		Strontium	178		ug/L	P423637	
		Tin	3.0	U	ug/L	P423637	
		Titanium	1.8	I	ug/L	P423637	
		Vanadium	2.0	U	ug/L	P423637	
		Zinc	5.0	U	ug/L	P423637	
	EPA 200.8 Rev. 5.4	Antimony	0.050	U	ug/L	P423637	
		Arsenic	0.48		ug/L	P423637	
		Barium	8.15		ug/L	P423637	
		Beryllium	0.015	I	ug/L	P423637	
		Boron	27.9		ug/L	P423637	
		Cadmium	0.020	U	ug/L	P423637	
		Chromium	0.40	U	ug/L	P423637	
		Cobalt	0.139		ug/L	P423637	
		Copper	1.35		ug/L	P423637	
		Lead	0.20	U	ug/L	P423637	
		Molybdenum	0.22	I	ug/L	P423637	
		Nickel	0.50	U	ug/L	P423637	
		Selenium	0.20	U	ug/L	P423637	
		Silver	0.010	U	ug/L	P423637	
		Thallium	0.10	U	ug/L	P423637	
	SM 2340 B-2011	Hardness	47.8		mg/L	P423637	

Ref. Method and Comment:

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

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium, magnesium, manganese, potassium, sodium and zinc are unavailable because of high analyte concentration in the QC sample.

EPA 200.8 Rev. 5.4: Batch matrix spike recoveries for nickel are unavailable because of high analyte concentration in the QC sample.

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P423606

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P423623

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P423637

Component	Result	Code	Units
Aluminum	60	U	ug/L
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Manganese	1.0	U	ug/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Strontium	2.0	U	ug/L
Tin	3.0	U	ug/L
Titanium	0.75	U	ug/L
Vanadium	2.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P423637

Component	Result	Code	Units
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Barium	0.20	U	ug/L
Beryllium	0.010	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Cobalt	0.020	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Molybdenum	0.15	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P423805

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P423808

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P424075

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423749

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P423831

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P423660

Component	Result	Code	Units
Total-P	0.010	U	mg P/L

Reference Method: EPA 8321B
Batch ID: P423561

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

Reference Method: EPA 8321B
Batch ID: P423628

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P423628

Component	Result	Code	Units
Fenuron	0.032	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.20	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	0.0040	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: SM 2320 B-2011

Batch ID: P423946

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

Reference Method: SM 2540 C-2015

Batch ID: P424055

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015

Batch ID: P423855

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011

Batch ID: P423951

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011

Batch ID: P423699

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: P423606

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	103		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P423623

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P423637

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	101		P	85 - 115
Calcium	102		P	85 - 115
Iron	107		P	85 - 115
Magnesium	98.6		P	85 - 115
Manganese	104		P	85 - 115
Potassium	97.7		P	85 - 115
Sodium	99.6		P	85 - 115
Strontium	101		P	85 - 115
Tin	102		P	85 - 115
Titanium	104		P	85 - 115
Vanadium	102		P	85 - 115
Zinc	104		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P423637

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Antimony	96.8		P	85 - 115
Arsenic	103		P	85 - 115
Barium	102		P	85 - 115
Beryllium	97.0		P	85 - 115
Boron	99.0		P	85 - 115
Cadmium	101		P	85 - 115
Chromium	96.6		P	85 - 115
Cobalt	97.2		P	85 - 115
Copper	101		P	85 - 115
Lead	92.5		P	85 - 115
Molybdenum	99.0		P	85 - 115
Nickel	102		P	85 - 115
Selenium	107		P	85 - 115
Silver	98.5		P	85 - 115
Thallium	96.9		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P423805

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	105		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P423808

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	105		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P424075

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	97.6		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423749

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P423831

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	108		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P423660

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

Reference Method: EPA 8321B
Batch ID: P423561

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	74.1		P	40 - 150
AMPA	106		P	40 - 150
Endothall	97.9		P	40 - 150
Glufosinate	100		P	40 - 150
Glyphosate	98.6		P	40 - 150
Sucralose	113		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P423628

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	102		P	40 - 150
2,4,5-T	76.0		P	40 - 150
Acetaminophen	95.1		P	30 - 150
Acetamiprid	83.1		P	40 - 150
Afidopyropen	64.9		P	30 - 150
Bentazon	69.1		P	30 - 150
Benzovindiflupyr	85.1		P	40 - 150
Carbamazepine	81.2		P	40 - 150
Clothianidin	93.6		P	40 - 150
Dinotefuran	95.1		P	40 - 150
Diuron	69.3		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P423628

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fenuron	93.5		P	40 - 150
Fluridone	78.0		P	40 - 150
Hydrocodone	86.3		P	40 - 150
Ibuprofen	96.7		P	40 - 150
Imazapyr	83.6		P	40 - 150
Imidacloprid	85.4		P	40 - 150
Linuron	77.2		P	40 - 150
Mandestrobin	91.0		P	40 - 150
MCPP	102		P	40 - 150
Naproxen	87.6		P	40 - 150
Primidone	89.9		P	40 - 150
Pyraclostrobin	78.4		P	40 - 150
Silvex	82.2		P	40 - 150
Thiamethoxam	86.6		P	40 - 150
Tolfenpyrad	40.8		P	30 - 150
Triclopyr	73.2		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P423946

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

Reference Method: SM 2540 C-2015
Batch ID: P424055

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

Reference Method: SM 2540 D-2015
Batch ID: P423855

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	98.1		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P423951

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	102		P	96 - 104

Reference Method: SM 5310 B-2011
Batch ID: P423699

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.6		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P423637

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2375036	Aluminum	101		P	80 - 120
2375036	Iron	101	95.4	P/P	80 - 120
2375036	Strontium	101	90.5	P/P	80 - 120
2375036	Tin	93.0	104	P/P	75 - 125
2375036	Titanium	99.8	93.1	P/P	80 - 120
2375036	Vanadium	98.8	92.8	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P423637

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2375036	Antimony	104	105	P/P	75 - 125
2375036	Arsenic	110	112	P/P	75 - 125
2375036	Barium	107	108	P/P	75 - 125
2375036	Beryllium	97.5	100	P/P	75 - 125
2375036	Boron	84.0	79.9	P/P	75 - 125
2375036	Cadmium	103	106	P/P	75 - 125
2375036	Chromium	106	107	P/P	75 - 125
2375036	Cobalt	108	114	P/P	75 - 125
2375036	Copper	102	105	P/P	75 - 125
2375036	Lead	94.8	94.6	P/P	75 - 125
2375036	Molybdenum	106	107	P/P	75 - 125
2375036	Selenium	117	118	P/P	75 - 125
2375036	Silver	93.5	94.1	P/P	75 - 125
2375036	Thallium	109	108	P/P	75 - 125

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P423805

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2375700	Chloride	103		P	90 - 110
2375701	Chloride	104		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P423808

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2375700	Sulfate	103		P	90 - 110
2375701	Sulfate	102		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P424075

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2375621	Ammonia-N	96.6	97.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423749

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2375615	Kjeldahl Nitrogen	98.3	102	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P423831

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2375634	NO2NO3-N	106	107	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P423660

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2375704	Total-P	104	102	P/P	90 - 110

Reference Method: EPA 8321B

Batch ID: P423561

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2375144	Acesulfame K	77.0	95.0	P/P	40 - 150
2375144	AMPA	99.4	99.4	P/P	40 - 150
2375144	Endothall	103	100	P/P	40 - 150
2375144	Glufosinate	111	110	P/P	40 - 150
2375144	Glyphosate	97.5	102	P/P	40 - 150
2375144	Sucralose	112	110	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P423628

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2375490	2,4-D	108	102	P/P	40 - 150
2375490	2,4,5-T	80.2	74.0	P/P	40 - 150
2375490	Acetaminophen	103	100	P/P	30 - 150
2375490	Acetamiprid	87.9	83.9	P/P	40 - 150
2375490	Afidopyropen	64.1	70.2	P/P	30 - 150
2375490	Bentazon	70.5	75.8	P/P	30 - 150
2375490	Benzovindiflupyr	93.9	88.2	P/P	40 - 150
2375490	Carbamazepine	86.2	83.4	P/P	40 - 150
2375490	Clothianidin	100	103	P/P	40 - 150
2375490	Dinotefuran	103	97.9	P/P	40 - 150
2375490	Diuron	79.8	76.3	P/P	40 - 150
2375490	Fenuron	100	101	P/P	40 - 150
2375490	Fluridone	78.9	81.6	P/P	40 - 150
2375490	Hydrocodone	90.1	92.1	P/P	40 - 150
2375490	Ibuprofen	99.9	92.6	P/P	40 - 150
2375490	Imazapyr	90.6	89.4	P/P	40 - 150
2375490	Imidacloprid	92.5	91.9	P/P	40 - 150
2375490	Linuron	81.9	80.5	P/P	40 - 150
2375490	Mandestrobin	94.3	99.3	P/P	40 - 150
2375490	MCPP	105	96.5	P/P	40 - 150
2375490	Naproxen	89.4	66.8	P/P	40 - 150
2375490	Primidone	95.7	95.6	P/P	40 - 150
2375490	Pyraclostrobin	88.7	85.3	P/P	40 - 150
2375490	Silvex	78.6	88.1	P/P	40 - 150
2375490	Thiamethoxam	95.2	95.2	P/P	40 - 150
2375490	Tolfenpyrad	50.0	42.3	P/P	30 - 150
2375490	Triclopyr	87.9	74.1	P/P	40 - 150

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: SM 4500-F- C-2011
Batch ID: P423951

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2375528	Fluoride	100	99.5	P/P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P423699

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2375622	Organic Carbon	97.3	97.2	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P423606

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2375701	Color (true)	1.30	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P423623

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2375595	Turbidity	0.250	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P423637

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2375036	Aluminum	5.75	Spike	P	0 - 20
2375036	Calcium	5.86	Spike	P	0 - 20
2375036	Iron	5.26	Spike	P	0 - 20
2375036	Magnesium	7.49	Spike	P	0 - 20
2375036	Manganese	6.48	Spike	P	0 - 20
2375036	Potassium	7.39	Spike	P	0 - 20
2375036	Sodium	6.63	Spike	P	0 - 20
2375036	Strontium	5.74	Spike	P	0 - 20
2375036	Tin	11.1	Spike	P	0 - 20
2375036	Titanium	6.92	Spike	P	0 - 20
2375036	Vanadium	6.25	Spike	P	0 - 20
2375036	Zinc	6.57	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P423637

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2375036	Antimony	1.43	Spike	P	0 - 20
2375036	Arsenic	1.08	Spike	P	0 - 20
2375036	Barium	0.558	Spike	P	0 - 20
2375036	Beryllium	1.90	Spike	P	0 - 20
2375036	Boron	2.32	Spike	P	0 - 20
2375036	Cadmium	1.74	Spike	P	0 - 20
2375036	Chromium	1.74	Spike	P	0 - 20
2375036	Cobalt	2.51	Spike	P	0 - 20
2375036	Copper	2.28	Spike	P	0 - 20
2375036	Lead	0.209	Spike	P	0 - 20
2375036	Molybdenum	0.785	Spike	P	0 - 20
2375036	Nickel	2.20	Spike	P	0 - 20
2375036	Selenium	0.520	Spike	P	0 - 20
2375036	Silver	0.665	Spike	P	0 - 20
2375036	Thallium	1.05	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P423805

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2375700	Chloride	0.251	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P423808

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2375700	Sulfate	0.488	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P424075

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2375621	Ammonia-N	1.06	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423749

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2375615	Kjeldahl Nitrogen	2.46	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P423831

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2375634	NO2NO3-N	0.851	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P423660

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2375704	Total-P	1.40	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P423561

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2375144	Acesulfame K	21.0	Spike	P	0 - 30
2375144	AMPA	0.00724	Spike	P	0 - 30
2375144	Endothall	2.13	Spike	P	0 - 30
2375144	Glufosinate	0.419	Spike	P	0 - 30
2375144	Glyphosate	4.40	Spike	P	0 - 30
2375144	Sucralose	0.765	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B

Batch ID: P423628

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2375490	2,4-D	6.37	Spike	P	0 - 30
2375490	2,4,5-T	8.04	Spike	P	0 - 30
2375490	Acetaminophen	3.22	Spike	P	0 - 30
2375490	Acetamiprid	4.61	Spike	P	0 - 30
2375490	Afidopyropen	9.12	Spike	P	0 - 30
2375490	Bentazon	7.20	Spike	P	0 - 30
2375490	Benzovindiflupyr	6.34	Spike	P	0 - 30
2375490	Carbamazepine	3.33	Spike	P	0 - 30
2375490	Clothianidin	2.29	Spike	P	0 - 30
2375490	Dinotefuran	4.92	Spike	P	0 - 30
2375490	Diuron	4.49	Spike	P	0 - 30
2375490	Fenuron	0.949	Spike	P	0 - 30
2375490	Fluridone	3.36	Spike	P	0 - 30
2375490	Hydrocodone	2.16	Spike	P	0 - 30
2375490	Ibuprofen	7.56	Spike	P	0 - 30
2375490	Imazapyr	1.32	Spike	P	0 - 30
2375490	Imidacloprid	0.616	Spike	P	0 - 30
2375490	Linuron	1.69	Spike	P	0 - 30
2375490	Mandestrobin	5.14	Spike	P	0 - 30
2375490	MCP	8.12	Spike	P	0 - 30
2375490	Naproxen	29.0	Spike	P	0 - 30
2375490	Primidone	0.111	Spike	P	0 - 30
2375490	Pyraclostrobin	3.99	Spike	P	0 - 30
2375490	Silvex	11.4	Spike	P	0 - 30
2375490	Thiamethoxam	0.0381	Spike	P	0 - 30
2375490	Tolfenpyrad	16.5	Spike	P	0 - 30
2375490	Triclopyr	17.0	Spike	P	0 - 30

Reference Method: SM 2320 B-2011

Batch ID: P423946

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2375528	Total Alkalinity	0.302	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2015

Batch ID: P424055

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2375492	TDS	5.56	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011

Batch ID: P423951

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2375528	Fluoride	0.477	Spike	P	0 - 1.6

Quality Assurance Report Precision

Reference Method: SM 5310 B-2011
Batch ID: P423699

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2375622	Organic Carbon	0.0708	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2375638

Field Sample ID: G4SD0107

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	91.6	P	30 - 160
EPA 8321B	Acetaminophen-d4	102	P	30 - 160
EPA 8321B	Carbamazepine-d10	71.5	P	30 - 160
EPA 8321B	Diuron-d6	61.4	P	30 - 160
EPA 8321B	Endothall-d6	113	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	126	P	30 - 160
EPA 8321B	Ibuprofen-d3	68.7	P	30 - 160
EPA 8321B	Primidone-d5	85.9	P	30 - 160
EPA 8321B	Sucralose-d6	61.4	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A116468

Included Lab Sample IDs: 2375633

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	102	101	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A116478

Included Lab Sample IDs: 2375633

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

Reference Method: SM 5310 B-2011

Run ID: A116527

Included Lab Sample IDs: 2375634

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.4	98.8	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A116536

Included Lab Sample IDs: 2375638

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	90.5	89.7	P/P	60 - 160
Sucralose	114	110	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A116538

Included Lab Sample IDs: 2375638

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	110	93.6	P/P	60 - 160
Endothall	99.3	96.3	P/P	60 - 160
Glufosinate	106	98.2	P/P	60 - 160
Glyphosate	98.4	100	P/P	60 - 160

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A116542

Included Lab Sample IDs: 2375639

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Antimony	94.6	98.8	P/P	90 - 110
Arsenic	102	103	P/P	90 - 110
Barium	100	103	P/P	90 - 110
Beryllium	96.1	107	P/P	90 - 110
Boron	94.6	96.4	P/P	90 - 110
Cadmium	98.5	101	P/P	90 - 110
Chromium	95.1	99.5	P/P	90 - 110
Cobalt	95.4	100	P/P	90 - 110
Copper	100	103	P/P	90 - 110
Lead	95.2	94.4	P/P	90 - 110
Molybdenum	96.8	96.7	P/P	90 - 110
Nickel	101	105	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A116542

Included Lab Sample IDs: 2375639

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Selenium	102	103	P/P	90 - 110
Silver	95.3	96.9	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A116559

Included Lab Sample IDs: 2375633

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	104	105	P/P	90 - 110
Sulfate	104	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A116591

Included Lab Sample IDs: 2375634

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A116597

Included Lab Sample IDs: 2375634

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	108	108	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A116600

Included Lab Sample IDs: 2375634

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.0	101	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A116621

Included Lab Sample IDs: 2375639

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	96.8	98.4	P/P	90 - 110
Calcium	99.9	103	P/P	90 - 110
Iron	100	103	P/P	90 - 110
Magnesium	98.2	101	P/P	90 - 110
Manganese	110	98.8	P/P	90 - 110
Potassium	96.9	98.9	P/P	90 - 110
Sodium	98.5	101	P/P	90 - 110
Strontium	108	94.8	P/P	90 - 110
Tin	109	97.9	P/P	90 - 110
Titanium	108	97.7	P/P	90 - 110
Vanadium	107	96.6	P/P	90 - 110
Zinc	110	98.5	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-2011

Run ID: A116652

Included Lab Sample IDs: 2375633

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.0	99.6	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A116652

Included Lab Sample IDs: 2375633

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	104	107	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A116666

Included Lab Sample IDs: 2375639

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Thallium	99.4	98.3	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A116684

Included Lab Sample IDs: 2375638

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	100	105	P/P	50 - 150
2,4,5-T	99.8	107	P/P	50 - 150
Acetaminophen	111	111	P/P	60 - 160
Acetamiprid	100	101	P/P	50 - 150
Afidopyropen	74.0	77.9	P/P	50 - 150
Bentazon	96.6	95.2	P/P	50 - 160
Benzovindiflupyr	114	112	P/P	50 - 150
Carbamazepine	99.8	94.6	P/P	60 - 150
Clothianidin	106	107	P/P	60 - 150
Dinotefuran	106	108	P/P	50 - 150
Diuron	114	107	P/P	60 - 160
Fenuron	100	99.3	P/P	60 - 150
Fluridone	95.3	101	P/P	60 - 160
Hydrocodone	105	100	P/P	60 - 150
Ibuprofen	92.7	103	P/P	50 - 160
Imazapyr	92.0	96.5	P/P	50 - 150
Imidacloprid	93.6	92.4	P/P	60 - 150
Linuron	90.8	94.4	P/P	60 - 150
Mandestrobin	113	106	P/P	50 - 150
MCPP	97.1	96.8	P/P	50 - 150
Naproxen	64.1	89.1	P/P	50 - 160
Primidone	96.9	100	P/P	60 - 150
Pyraclostrobin	118	122	P/P	60 - 150
Silvex	101	105	P/P	50 - 150
Thiamethoxam	104	106	P/P	50 - 150
Tolfenpyrad	98.8	95.4	P/P	60 - 150
Triclopyr	95.1	114	P/P	50 - 150

Quality Assurance Report

Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A116711

Included Lab Sample IDs: 2375634

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.3	97.2	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 SMP	MS
DEP SOP: NU-094-1	Color (true)	103				1.30	
EPA 180.1 Rev. 2.0	Turbidity	100				0.250	
EPA 200.7 Rev. 4.4	Aluminum	101	101				5.75
	Calcium	102					5.86
	Iron	107	101	95.4			5.26
	Magnesium	98.6					7.49
	Manganese	104					6.48
	Potassium	97.7					7.39
	Sodium	99.6					6.63
	Strontium	101	101	90.5			5.74
	Tin	102	93.0	104			11.1
	Titanium	104	99.8	93.1			6.92
	Vanadium	102	98.8	92.8			6.25
	Zinc	104					6.57
EPA 200.8 Rev. 5.4	Antimony	96.8	104	105			1.43
	Arsenic	103	110	112			1.08
	Barium	102	107	108			0.558
	Beryllium	97.0	97.5	100			1.90
	Boron	99.0	84.0	79.9			2.32
	Cadmium	101	103	106			1.74
	Chromium	96.6	106	107			1.74
	Cobalt	97.2	108	114			2.51
	Copper	101	102	105			2.28
	Lead	92.5	94.8	94.6			0.209
	Molybdenum	99.0	106	107			0.785
	Nickel	102					2.20
	Selenium	107	117	118			0.520
	Silver	98.5	93.5	94.1			0.665
	Thallium	96.9	109	108			1.05
EPA 300.0 Rev. 2.1	Chloride	105	103	104		0.251	
	Sulfate	105	103	102		0.488	
EPA 350.1 Rev. 2.0	Ammonia-N	97.6	96.6	97.8			1.06
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.3	98.3	102			2.46
EPA 353.2 Rev. 2.0	NO2NO3-N	108	106	107			0.851
EPA 365.1 Rev. 2.0	Total-P	104	104	102			1.40
EPA 8321B	2,4-D	102	108	102			6.37
	2,4,5-T	76.0	80.2	74.0			8.04
	Acesulfame K	74.1	77.0	95.0			21.0
	Acetaminophen	95.1	103	100			3.22
	Acetamiprid	83.1	87.9	83.9			4.61
	Afidopyropen	64.9	64.1	70.2			9.12
	AMPA	106	99.4	99.4			0.0072
	Bentazon	69.1	70.5	75.8			7.20
	Benzovindiflupyr	85.1	93.9	88.2			6.34
	Carbamazepine	81.2	86.2	83.4			3.33
	Clothianidin	93.6	100	103			2.29
	Dinotefuran	95.1	103	97.9			4.92
	Diuron	69.3	79.8	76.3			4.49
	Endothall	97.9	103	100			2.13
	Fenuron	93.5	100	101			0.949
	Fluridone	78.0	78.9	81.6			3.36
	Glufosinate	100	111	110			0.419
	Glyphosate	98.6	97.5	102			4.40
	Hydrocodone	86.3	90.1	92.1			2.16

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8321B	Ibuprofen	96.7	99.9	92.6			7.56
	Imazapyr	83.6	90.6	89.4			1.32
	Imidacloprid	85.4	92.5	91.9			0.616
	Linuron	77.2	81.9	80.5			1.69
	Mandestrobin	91.0	94.3	99.3			5.14
	MCPP	102	105	96.5			8.12
	Naproxen	87.6	89.4	66.8			29.0
	Primidone	89.9	95.7	95.6			0.111
	Pyraclostrobin	78.4	88.7	85.3			3.99
	Silvex	82.2	78.6	88.1			11.4
	Sucralose	113	112	110			0.765
	Thiamethoxam	86.6	95.2	95.2			0.0381
	Tolfenpyrad	40.8	50.0	42.3			16.5
	Triclopyr	73.2	87.9	74.1			17.0
SM 2320 B-2011	Total Alkalinity	98.9				0.302	
SM 2540 C-2015	TDS	102				5.56	
SM 2540 D-2015	TSS	98.1					
SM 4500-F- C-2011	Fluoride	102	100	99.5			0.477
SM 5310 B-2011	Organic Carbon	95.6	97.3	97.2			0.0708

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2375633
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2375633
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2375639
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2375639
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2375633
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2375633
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2375634
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2375634
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2375634
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2375634
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2375638
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2375633
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2375639
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2375633
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2375633
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2375633
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2375634

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	12/15/2022			12/15/2022 14:33	Samantha L Bates	2375633
EPA 180.1 Rev. 2.0	12/15/2022			12/15/2022 13:36	Chandler E Cox	2375633
EPA 200.7 Rev. 4.4	12/15/2022	12/16/2022 10:30	George D Taylor	12/21/2022 13:44	McKinley C Carter	2375639
EPA 200.8 Rev. 5.4	12/15/2022	12/16/2022 10:30	George D Taylor	12/19/2022 03:55	Emily M Philpot	2375639
	12/15/2022	12/16/2022 10:30	George D Taylor	12/22/2022 19:55	Emily M Philpot	2375639
EPA 300.0 Rev. 2.1	12/15/2022			12/21/2022 08:14	Anna M. Plaviak	2375633
EPA 350.1 Rev. 2.0	12/15/2022			01/03/2023 16:37	Ping Hua	2375634
EPA 351.2 Rev. 2.0	12/15/2022	12/20/2022 13:35	Simonne.V. Calhoun	12/21/2022 13:48	Samantha L Bates	2375634
EPA 353.2 Rev. 2.0	12/15/2022			12/21/2022 10:32	Beverly Y. Sanders	2375634
EPA 365.1 Rev. 2.0	12/15/2022	12/20/2022 16:15	Simonne.V. Calhoun	12/21/2022 10:53	James L Waggeberby	2375634
EPA 8321B	12/15/2022	12/16/2022 12:30	Manjita Shrestha	12/16/2022 15:00	Manjita Shrestha	2375638
	12/15/2022	12/16/2022 12:30	Manjita Shrestha	12/16/2022 22:59	Manjita Shrestha	2375638
	12/15/2022	12/20/2022 08:30	June Rhew	12/20/2022 20:21	Juyoung Kim	2375638
SM 2320 B-2011	12/15/2022			12/23/2022 11:08	Dale L. Simmons	2375633
SM 2340 B-2011	12/15/2022			12/21/2022 13:44	McKinley C Carter	2375639
SM 2540 C-2015	12/15/2022			12/19/2022 16:08	Yijie Li	2375633
SM 2540 D-2015	12/15/2022			12/19/2022 16:08	Yijie Li	2375633
SM 4500-F- C-2011	12/15/2022			12/23/2022 11:08	Dale L. Simmons	2375633
SM 5310 B-2011	12/15/2022			12/17/2022 01:20	Khloe J Berg	2375634