

Chemical Analysis Report

CEN-DIST-2023-02-21-01

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

Event Description: **Run 23**
Request ID: **RQ-2023-02-20-16**
Customer: **CEN-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
3319 Maguire Blvd., Suite 232
Orlando, FL 32803-3767
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Certified by: Thekkekalathil Chandrasekhar, Environmental Consultant

Date Certified: 15-MAR-2023 10:02



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: Hicks Ditch SE of East Rd

Collection Date/Time: 02/20/2023 12:38

Field ID: G1CE0126

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2388867	EPA 8321B	2,4-D	0.0020	U	ug/L	P426090	
		Acesulfame K	0.10	U	ug/L	P425983	MS
		2,4,5-T	0.0040	U	ug/L	P426090	
		AMPA	0.10	U	ug/L	P425983	
		Acetaminophen	0.0080	U	ug/L	P426090	
		Acetamiprid	0.0020	U	ug/L	P426090	
		Endothall	0.25	U	ug/L	P425983	
		Glufosinate	0.10	U	ug/L	P425983	MS
		Glyphosate	0.10	I	ug/L	P425983	
		Afidopyropen	0.0020	U	ug/L	P426090	
		Bentazon	8.0E-04	U	ug/L	P426090	
		Sucralose	0.099		ug/L	P425983	
		Benzovindiflupyr	0.0020	U	ug/L	P426090	
		Carbamazepine	8.0E-04	U	ug/L	P426090	
		Clothianidin	0.0020	U	ug/L	P426090	
		Dinotefuran	0.0020	U	ug/L	P426090	
		Diuron	0.0020	U	ug/L	P426090	
		Fenuron	0.032	U	ug/L	P426090	
		Fluridone	8.0E-04	U	ug/L	P426090	
		Imazapyr	0.21		ug/L	P426090	
		Hydrocodone	0.0020	U	ug/L	P426090	
		Ibuprofen	0.080	U	ug/L	P426090	
		Imidacloprid	0.0020	U	ug/L	P426090	
		Linuron	0.0040	U	ug/L	P426090	
		Mandestrobin	0.0020	U	ug/L	P426090	
		MCPP	0.0020	U	ug/L	P426090	
		Naproxen	0.0080	U	ug/L	P426090	
		Primidone	0.0040	U	ug/L	P426090	
		Pyraclostrobin	0.0020	U	ug/L	P426090	
		Silvex	0.0040	U	ug/L	P426090	
		Thiamethoxam	0.0020	U	ug/L	P426090	
		Tolfenpyrad	0.0020	U	ug/L	P426090	
		Triclopyr	0.0040	U	ug/L	P426090	
2388868	EPA 200.7 Rev. 4.4	Calcium	4.48		mg/L	P426283	
		Iron	800		ug/L	P426283	
		Magnesium	2.62		mg/L	P426283	
		Potassium	3.1		mg/L	P426283	
		Sodium	10.1		mg/L	P426283	
		Strontium	21.8		ug/L	P426283	
		Tin	3.0	U	ug/L	P426283	
		Titanium	0.75	U	ug/L	P426283	
		Vanadium	2.0	U	ug/L	P426283	
		Zinc	5.0	U	ug/L	P426283	
	EPA 200.8 Rev. 5.4	Aluminum	60		ug/L	P426283	

Field ID: G1CE0126

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2388868	EPA 200.8 Rev. 5.4	Antimony	0.050	U	ug/L	P426283	
		Arsenic	0.40		ug/L	P426283	
		Barium	16.3		ug/L	P426283	
		Beryllium	0.034	I	ug/L	P426283	
		Boron	24.7		ug/L	P426283	
		Cadmium	0.020	U	ug/L	P426283	
		Chromium	0.40	U	ug/L	P426283	
		Cobalt	0.312		ug/L	P426283	
		Copper	0.40	U	ug/L	P426283	
		Lead	0.20	U	ug/L	P426283	
		Manganese	28.7		ug/L	P426283	
		Molybdenum	0.15	U	ug/L	P426283	
		Nickel	0.66	I	ug/L	P426283	
		Selenium	0.20	U	ug/L	P426283	
		Silver	0.010	U	ug/L	P426283	
		Thallium	0.10	U	ug/L	P426283	
	SM 2340 B-2011	Hardness	22.0		mg/L	P426283	

Ref. Method and Comment:
EPA 8321B: MS accuracy for imidacloprid could not be assessed due to high concentration of parameter in the spiked sample.
EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: Dead River @ 50m from S of US 441 (2817C)

Collection Date/Time: 02/20/2023 11:04

Field ID: G1CE0100

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2388861	DEP SOP: NU-094-1	Color (true)	19		PCU	P426178	
	EPA 180.1 Rev. 2.0	Turbidity	5.9		NTU	P426184	
	EPA 300.0 Rev. 2.1	Chloride	20		mg Cl/L	P426649	
		Sulfate	5.7		mg SO4/L	P426653	
	SM 2320 B-2011	Total Alkalinity	80		mg CaCO3/L	P426434	
	SM 2540 D-2015	TSS	12	I	mg/L	P426640	
	SM 4500-F- C-2011	Fluoride	0.10		mg F/L	P426436	
2388862	EPA 350.1 Rev. 2.0	Ammonia-N	0.005		mg N/L	P426473	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P426766	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P426279	
	EPA 365.1 Rev. 2.0	Total-P	0.028		mg P/L	P426218	
	SM 5310 B-2011	Organic Carbon	12		mg C/L	P426275	

Ref. Method and Comment:

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.

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P426178

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P426184

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P426283

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/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: P426283

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
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
Manganese	0.10	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: P426649

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: P426653

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P426473

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P426766

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P426279

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P426218

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

Reference Method: EPA 8321B
Batch ID: P425983

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: P426090

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: P426090

Component	Result	Code	Units
Fenuron	0.032	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.080	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: SM 2320 B-2011

Batch ID: P426434

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

Reference Method: SM 2540 D-2015

Batch ID: P426640

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011

Batch ID: P426436

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011

Batch ID: P426275

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: P426178

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.0		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P426184

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P426283

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	103		P	85 - 115
Iron	104		P	85 - 115
Magnesium	107		P	85 - 115
Potassium	98.7		P	85 - 115
Sodium	98.8		P	85 - 115
Strontium	100		P	85 - 115
Tin	104		P	85 - 115
Titanium	104		P	85 - 115
Vanadium	99.3		P	85 - 115
Zinc	99.5		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P426283

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	97.0		P	85 - 115
Antimony	98.2		P	85 - 115
Arsenic	98.1		P	85 - 115
Barium	99.7		P	85 - 115
Beryllium	93.6		P	85 - 115
Boron	97.8		P	85 - 115
Cadmium	96.4		P	85 - 115
Chromium	97.9		P	85 - 115
Cobalt	98.0		P	85 - 115
Copper	97.6		P	85 - 115
Lead	96.5		P	85 - 115
Manganese	96.8		P	85 - 115
Molybdenum	96.6		P	85 - 115
Nickel	99.3		P	85 - 115
Selenium	96.5		P	85 - 115
Silver	96.6		P	85 - 115
Thallium	98.0		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426649

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426653

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P426473

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P426766

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	96.5		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P426279

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	98.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P426218

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

Reference Method: EPA 8321B
Batch ID: P425983

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	119		P	40 - 150
AMPA	107		P	40 - 150
Endothall	105		P	40 - 150
Glufosinate	101		P	40 - 150
Glyphosate	105		P	40 - 150
Sucralose	111		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P426090

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	140		P	40 - 150
2,4,5-T	105		P	40 - 150
Acetaminophen	94.6		P	30 - 150
Acetamiprid	103		P	40 - 150
Afidopyropen	80.8		P	30 - 150
Bentazon	134		P	30 - 150
Benzovindiflupyr	90.3		P	40 - 150
Carbamazepine	95.2		P	40 - 150
Clothianidin	72.7		P	40 - 150
Dinotefuran	115		P	40 - 150
Diuron	70.3		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P426090

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fenuron	78.2		P	40 - 150
Fluridone	83.5		P	40 - 150
Hydrocodone	88.0		P	40 - 150
Ibuprofen	65.6		P	40 - 150
Imazapyr	94.9		P	40 - 150
Imidacloprid	107		P	40 - 150
Linuron	71.4		P	40 - 150
Mandestrobin	102		P	40 - 150
MCPP	96.7		P	40 - 150
Naproxen	75.2		P	40 - 150
Primidone	94.3		P	40 - 150
Pyraclostrobin	82.1		P	40 - 150
Silvex	102		P	40 - 150
Thiamethoxam	87.7		P	40 - 150
Tolfenpyrad	49.5		P	30 - 150
Triclopyr	93.9		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P426434

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.3		P	94 - 106

Reference Method: SM 2540 D-2015
Batch ID: P426640

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	97.9		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P426436

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	101		P	96 - 104

Reference Method: SM 5310 B-2011
Batch ID: P426275

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.2		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P426283

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2388653	Calcium	105	103	P/P	80 - 120
2388653	Iron	104	103	P/P	80 - 120
2388653	Magnesium	107	105	P/P	80 - 120
2388653	Potassium	99.3	98.7	P/P	80 - 120
2388653	Sodium	96.8		P	80 - 120
2388653	Strontium	100	99.8	P/P	80 - 120
2388653	Tin	105	105	P/P	80 - 120
2388653	Titanium	104	105	P/P	80 - 120
2388653	Vanadium	102	102	P/P	80 - 120
2388653	Zinc	99.3	98.6	P/P	80 - 120
2388971	Calcium	98.3		P	80 - 120
2388971	Iron	102		P	80 - 120
2388971	Magnesium	104		P	80 - 120
2388971	Potassium	96.1		P	80 - 120
2388971	Sodium	98.6		P	80 - 120
2388971	Strontium	97.9		P	80 - 120
2388971	Tin	101		P	80 - 120
2388971	Titanium	104		P	80 - 120
2388971	Vanadium	101		P	80 - 120
2388971	Zinc	98.4		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P426283

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2388653	Aluminum	96.1	96.6	P/P	80 - 120
2388653	Antimony	98.5	98.9	P/P	80 - 120
2388653	Arsenic	97.6	97.5	P/P	80 - 120
2388653	Barium	99.4	99.7	P/P	80 - 120
2388653	Beryllium	92.1	93.1	P/P	80 - 120
2388653	Boron	95.4	97.9	P/P	80 - 120
2388653	Cadmium	99.6	97.8	P/P	80 - 120
2388653	Chromium	99.4	100	P/P	80 - 120
2388653	Cobalt	98.2	98.8	P/P	80 - 120
2388653	Copper	97.9	97.7	P/P	80 - 120
2388653	Lead	96.3	96.1	P/P	80 - 120
2388653	Manganese	100	101	P/P	80 - 120
2388653	Molybdenum	96.9	97.2	P/P	80 - 120
2388653	Nickel	100	100	P/P	80 - 120
2388653	Selenium	94.8	95.0	P/P	80 - 120
2388653	Silver	98.2	98.6	P/P	80 - 120
2388653	Thallium	98.2	100	P/P	80 - 120
2388971	Aluminum	97.0		P	80 - 120
2388971	Antimony	99.8		P	80 - 120
2388971	Arsenic	97.0		P	80 - 120
2388971	Barium	98.5		P	80 - 120
2388971	Beryllium	93.5		P	80 - 120
2388971	Boron	100		P	80 - 120
2388971	Cadmium	99.6		P	80 - 120
2388971	Chromium	96.2		P	80 - 120
2388971	Cobalt	95.4		P	80 - 120
2388971	Copper	92.6		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P426283

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2388971	Lead	97.1		P	80 - 120
2388971	Manganese	99.2		P	80 - 120
2388971	Molybdenum	99.4		P	80 - 120
2388971	Nickel	94.8		P	80 - 120
2388971	Selenium	93.6		P	80 - 120
2388971	Silver	99.1		P	80 - 120
2388971	Thallium	101		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426649

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2388484	Chloride	96.7		P	90 - 110
2388699	Chloride	100		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426653

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2388484	Sulfate	101		P	90 - 110
2388699	Sulfate	104		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P426473

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2388707	Ammonia-N	95.2	95.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P426766

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2388894	Kjeldahl Nitrogen	104	90.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P426279

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2388704	NO2NO3-N	98.5	98.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P426218

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2388900	Total-P	101	100	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P425983

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2388155	Acesulfame K	150	151	F/F	40 - 150
2388155	Endothall	110	113	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P425983

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2388155	Glufosinate	232	184	F/F	40 - 150
2388155	Sucralose	108	113	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P426090

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2388382	2,4-D	103	108	P/P	40 - 150
2388382	2,4,5-T	96.2	98.7	P/P	40 - 150
2388382	Acetaminophen	96.8	109	P/P	30 - 150
2388382	Acetamiprid	79.0	69.2	P/P	40 - 150
2388382	Afidopyropen	55.5	52.6	P/P	30 - 150
2388382	Bentazon	90.4	93.0	P/P	30 - 150
2388382	Benzovindiflupyr	77.8	88.0	P/P	40 - 150
2388382	Carbamazepine	64.8	72.3	P/P	40 - 150
2388382	Clothianidin	67.5	65.4	P/P	40 - 150
2388382	Dinotefuran	102	107	P/P	40 - 150
2388382	Diuron	47.5	51.0	P/P	40 - 150
2388382	Fenuron	53.0	52.8	P/P	40 - 150
2388382	Fluridone	65.6	63.1	P/P	40 - 150
2388382	Hydrocodone	71.6	71.9	P/P	40 - 150
2388382	Ibuprofen	79.0	86.7	P/P	40 - 150
2388382	Imazapyr	90.7	96.1	P/P	40 - 150
2388382	Linuron	61.5	68.4	P/P	40 - 150
2388382	Mandestrobin	87.5	90.9	P/P	40 - 150
2388382	MCPP	91.6	97.3	P/P	40 - 150
2388382	Naproxen	111	101	P/P	40 - 150
2388382	Primidone	75.1	81.6	P/P	40 - 150
2388382	Pyraclostrobin	80.7	80.8	P/P	40 - 150
2388382	Silvex	111	113	P/P	40 - 150
2388382	Thiamethoxam	82.2	78.2	P/P	40 - 150
2388382	Tolfenpyrad	55.8	53.8	P/P	30 - 150
2388382	Triclopyr	104	116	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P426436

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2388899	Fluoride	102	103	P/P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P426275

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2388646	Organic Carbon	100	100	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P426178

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2388699	Color (true)	1.19	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P426184

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2388699	Turbidity	5.33	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P426283

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2388653	Calcium	1.03	Spike	P	0 - 20
2388653	Iron	1.56	Spike	P	0 - 20
2388653	Magnesium	1.82	Spike	P	0 - 20
2388653	Potassium	0.543	Spike	P	0 - 20
2388653	Sodium	0.927	Spike	P	0 - 20
2388653	Strontium	0.484	Spike	P	0 - 20
2388653	Tin	0.133	Spike	P	0 - 20
2388653	Titanium	0.318	Spike	P	0 - 20
2388653	Vanadium	0.150	Spike	P	0 - 20
2388653	Zinc	0.675	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P426283

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2388653	Aluminum	0.441	Spike	P	0 - 20
2388653	Antimony	0.360	Spike	P	0 - 20
2388653	Arsenic	0.147	Spike	P	0 - 20
2388653	Barium	0.236	Spike	P	0 - 20
2388653	Beryllium	0.979	Spike	P	0 - 20
2388653	Boron	2.31	Spike	P	0 - 20
2388653	Cadmium	1.84	Spike	P	0 - 20
2388653	Chromium	0.800	Spike	P	0 - 20
2388653	Cobalt	0.622	Spike	P	0 - 20
2388653	Copper	0.172	Spike	P	0 - 20
2388653	Lead	0.180	Spike	P	0 - 20
2388653	Manganese	0.234	Spike	P	0 - 20
2388653	Molybdenum	0.298	Spike	P	0 - 20
2388653	Nickel	0.248	Spike	P	0 - 20
2388653	Selenium	0.178	Spike	P	0 - 20
2388653	Silver	0.437	Spike	P	0 - 20
2388653	Thallium	2.25	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426649

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2388484	Chloride	1.92	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426653

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2388484	Sulfate	1.54	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P426473

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2388707	Ammonia-N	0.0	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P426766

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2388894	Kjeldahl Nitrogen	9.11	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P426279

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2388704	NO2NO3-N	0.283	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P426218

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2388900	Total-P	0.635	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P425983

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2388155	Acesulfame K	0.853	Spike	P	0 - 30
2388155	AMPA	2.29	Spike	P	0 - 30
2388155	Endothall	2.28	Spike	P	0 - 30
2388155	Glufosinate	23.4	Spike	P	0 - 30
2388155	Glyphosate	1.90	Spike	P	0 - 30
2388155	Sucralose	2.95	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
 Batch ID: P426090

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2388382	2,4-D	4.39	Spike	P	0 - 30
2388382	2,4,5-T	2.53	Spike	P	0 - 30
2388382	Acetaminophen	11.7	Spike	P	0 - 30
2388382	Acetamiprid	13.3	Spike	P	0 - 30
2388382	Afidopyropen	5.46	Spike	P	0 - 30
2388382	Bentazon	2.83	Spike	P	0 - 30
2388382	Benzovindiflupyr	12.3	Spike	P	0 - 30
2388382	Carbamazepine	10.8	Spike	P	0 - 30
2388382	Clothianidin	2.18	Spike	P	0 - 30
2388382	Dinotefuran	4.68	Spike	P	0 - 30
2388382	Diuron	6.48	Spike	P	0 - 30
2388382	Fenuron	0.337	Spike	P	0 - 30
2388382	Fluridone	3.86	Spike	P	0 - 30
2388382	Hydrocodone	0.472	Spike	P	0 - 30
2388382	Ibuprofen	9.21	Spike	P	0 - 30
2388382	Imazapyr	5.34	Spike	P	0 - 30
2388382	Imidacloprid	4.45	Spike	P	0 - 30
2388382	Linuron	10.5	Spike	P	0 - 30
2388382	Mandestrobin	3.84	Spike	P	0 - 30
2388382	MCP	6.09	Spike	P	0 - 30
2388382	Naproxen	9.58	Spike	P	0 - 30
2388382	Primidone	8.35	Spike	P	0 - 30
2388382	Pyraclostrobin	0.147	Spike	P	0 - 30
2388382	Silvex	1.65	Spike	P	0 - 30
2388382	Thiamethoxam	3.28	Spike	P	0 - 30
2388382	Tolfenpyrad	3.77	Spike	P	0 - 30
2388382	Triclopyr	10.7	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
 Batch ID: P426434

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2388899	Total Alkalinity	0.00137	Sample	P	0 - 3.8

Reference Method: SM 4500-F- C-2011
 Batch ID: P426436

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2388899	Fluoride	0.520	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
 Batch ID: P426275

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2388646	Organic Carbon	0.0998	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2388867

Field Sample ID: G1CE0126

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	91.1	P	30 - 160
EPA 8321B	Acetaminophen-d4	88.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	48.9	P	30 - 160
EPA 8321B	Diuron-d6	42.4	P	30 - 160
EPA 8321B	Endothall-d6	131	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	126	P	30 - 160
EPA 8321B	Ibuprofen-d3	64.9	P	30 - 160
EPA 8321B	Primidone-d5	65.2	P	30 - 160
EPA 8321B	Sucralose-d6	129	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A117573

Included Lab Sample IDs: 2388861

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.4	101	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A117574

Included Lab Sample IDs: 2388861

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

Reference Method: EPA 8321B

Run ID: A117585

Included Lab Sample IDs: 2388867

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	115	107	P/P	60 - 160
Endothall	116	111	P/P	60 - 160
Glufosinate	111	91.1	P/P	60 - 160
Glyphosate	111	93.7	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A117586

Included Lab Sample IDs: 2388867

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	130	125	P/P	60 - 160
Sucralose	119	119	P/P	60 - 160

Reference Method: SM 5310 B-2011

Run ID: A117617

Included Lab Sample IDs: 2388862

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.4	97.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A117620

Included Lab Sample IDs: 2388862

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	98.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A117627

Included Lab Sample IDs: 2388862

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	97.5	97.5	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A117655
Included Lab Sample IDs: 2388867

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	118	120	P/P	50 - 150
2,4,5-T	99.9	104	P/P	50 - 150
Acetaminophen	103	102	P/P	60 - 160
Acetamiprid	77.9	87.6	P/P	50 - 150
Afidopyropen	107	97.1	P/P	50 - 150
Bentazon	127	139	P/P	50 - 160
Benzovindiflupyr	106	111	P/P	50 - 150
Carbamazepine	119	124	P/P	60 - 150
Clothianidin	105	106	P/P	60 - 150
Dinotefuran	115	116	P/P	50 - 150
Diuron	108	108	P/P	60 - 160
Fenuron	108	109	P/P	60 - 150
Fluridone	107	118	P/P	60 - 160
Hydrocodone	124	121	P/P	60 - 150
Ibuprofen	125	119	P/P	50 - 160
Imazapyr	101	100	P/P	50 - 150
Imidacloprid	78.6	92.0	P/P	60 - 150
Linuron	91.9	103	P/P	60 - 150
Mandestrobin	116	114	P/P	50 - 150
MCPP	102	96.6	P/P	50 - 150
Naproxen	106	93.5	P/P	50 - 160
Primidone	103	95.1	P/P	60 - 150
Pyraclostrobin	106	109	P/P	60 - 150
Silvex	95.8	103	P/P	50 - 150
Thiamethoxam	115	122	P/P	50 - 150
Tolfenpyrad	99.9	107	P/P	60 - 150
Triclopyr	101	104	P/P	50 - 150

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A117669
Included Lab Sample IDs: 2388868

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	97.4	96.4	P/P	90 - 110
Antimony	95.9	97.8	P/P	90 - 110
Arsenic	96.9	95.3	P/P	90 - 110
Barium	96.7	95.9	P/P	90 - 110
Beryllium	94.9	94.2	P/P	90 - 110
Boron	93.4	98.3	P/P	90 - 110
Cadmium	96.2	97.5	P/P	90 - 110
Chromium	96.9	94.5	P/P	90 - 110
Cobalt	96.3	93.3	P/P	90 - 110
Copper	95.8	92.6	P/P	90 - 110
Lead	94.8	96.3	P/P	90 - 110
Manganese	99.4	100	P/P	90 - 110
Molybdenum	95.5	95.3	P/P	90 - 110
Nickel	97.0	92.9	P/P	90 - 110
Selenium	96.4	95.9	P/P	90 - 110
Silver	96.1	97.0	P/P	90 - 110
Thallium	99.4	99.9	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A117687

Included Lab Sample IDs: 2388861

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	96.6	97.4	P/P	90 - 110
Sulfate	99.0	99.9	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A117689

Included Lab Sample IDs: 2388861

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	96.4	95.4	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A117689

Included Lab Sample IDs: 2388861

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A117701

Included Lab Sample IDs: 2388862

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A117832

Included Lab Sample IDs: 2388868

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	103	99.7	P/P	90 - 110
Iron	104	101	P/P	90 - 110
Magnesium	105	101	P/P	90 - 110
Potassium	102	99.7	P/P	90 - 110
Sodium	102	99.4	P/P	90 - 110
Strontium	101	101	P/P	90 - 110
Tin	105	105	P/P	90 - 110
Titanium	103	103	P/P	90 - 110
Vanadium	102	102	P/P	90 - 110
Zinc	102	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A117932

Included Lab Sample IDs: 2388862

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	91.8	98.0	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			Precision SMP	MS
			LCS				
DEP SOP: NU-094-1	Color (true)	99.0				1.19	
EPA 180.1 Rev. 2.0	Turbidity	99.9				5.33	
EPA 200.7 Rev. 4.4	Calcium	103	105	103	98.3		1.03
	Iron	104	104	103	102		1.56
	Magnesium	107	107	105	104		1.82
	Potassium	98.7	99.3	98.7	96.1		0.543
	Sodium	98.8	96.8	98.6			0.927
	Strontium	100	100	99.8	97.9		0.484
	Tin	104	105	105	101		0.133
	Titanium	104	104	105	104		0.318
	Vanadium	99.3	102	102	101		0.150
	Zinc	99.5	99.3	98.6	98.4		0.675
EPA 200.8 Rev. 5.4	Aluminum	97.0	96.1	96.6	97.0		0.441
	Antimony	98.2	98.5	98.9	99.8		0.360
	Arsenic	98.1	97.6	97.5	97.0		0.147
	Barium	99.7	99.4	99.7	98.5		0.236
	Beryllium	93.6	92.1	93.1	93.5		0.979
	Boron	97.8	95.4	97.9	100		2.31
	Cadmium	96.4	99.6	97.8	99.6		1.84
	Chromium	97.9	99.4	100	96.2		0.800
	Cobalt	98.0	98.2	98.8	95.4		0.622
	Copper	97.6	97.9	97.7	92.6		0.172
	Lead	96.5	96.3	96.1	97.1		0.180
	Manganese	96.8	100	101	99.2		0.234
	Molybdenum	96.6	96.9	97.2	99.4		0.298
	Nickel	99.3	100	100	94.8		0.248
	Selenium	96.5	94.8	95.0	93.6		0.178
	Silver	96.6	98.2	98.6	99.1		0.437
	Thallium	98.0	98.2	100	101		2.25
EPA 300.0 Rev. 2.1	Chloride	99.3	96.7	100		1.92	
	Sulfate	103	101	104		1.54	
EPA 350.1 Rev. 2.0	Ammonia-N	97.0	95.2	95.2			0.0
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	96.5	104	90.6			9.11
EPA 353.2 Rev. 2.0	NO2NO3-N	98.5	98.5	98.0			0.283
EPA 365.1 Rev. 2.0	Total-P	97.8	101	100			0.635
EPA 8321B	2,4-D	140	103	108			4.39
	2,4,5-T	105	96.2	98.7			2.53
	Acesulfame K	119	150	151			0.853
	Acetaminophen	94.6	96.8	109			11.7
	Acetamiprid	103	79.0	69.2			13.3
	Afidopyropen	80.8	55.5	52.6			5.46
	AMPA	107					2.29
	Bentazon	134	90.4	93.0			2.83
	Benzovindiflupyr	90.3	77.8	88.0			12.3
	Carbamazepine	95.2	64.8	72.3			10.8
	Clothianidin	72.7	67.5	65.4			2.18
	Dinotefuran	115	102	107			4.68
	Diuron	70.3	47.5	51.0			6.48
	Endothall	105	110	113			2.28
	Fenuron	78.2	53.0	52.8			0.337
	Fluridone	83.5	65.6	63.1			3.86
	Glufosinate	101	232	184			23.4
	Glyphosate	105					1.90
	Hydrocodone	88.0	71.6	71.9			0.472

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8321B	Ibuprofen	65.6	79.0	86.7		9.21
	Imazapyr	94.9	90.7	96.1		5.34
	Imidacloprid	107				4.45
	Linuron	71.4	61.5	68.4		10.5
	Mandestrobin	102	87.5	90.9		3.84
	MCPP	96.7	91.6	97.3		6.09
	Naproxen	75.2	111	101		9.58
	Primidone	94.3	75.1	81.6		8.35
	Pyraclostrobin	82.1	80.7	80.8		0.147
	Silvex	102	111	113		1.65
	Sucralose	111	108	113		2.95
	Thiamethoxam	87.7	82.2	78.2		3.28
	Tolfenpyrad	49.5	55.8	53.8		3.77
	Triclopyr	93.9	104	116		10.7
SM 2320 B-2011	Total Alkalinity	99.3			0.0013	
SM 2540 D-2015	TSS	97.9				
SM 4500-F- C-2011	Fluoride	101	102	103		0.520
SM 5310 B-2011	Organic Carbon	95.2	100	100		0.0998

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2388861
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2388861
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2388868
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2388868
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2388861
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2388861
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2388862
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2388862
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2388862
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2388862
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2388867
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2388861
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2388868
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2388861
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2388861
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2388862

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: NU-094-1	02/21/2023			02/21/2023 14:15	Alexis Price	2388861
EPA 180.1 Rev. 2.0	02/21/2023			02/21/2023 13:51	Anna M. Plaviak	2388861
EPA 200.7 Rev. 4.4	02/21/2023	02/23/2023 13:50	George D Taylor	03/06/2023 18:03	McKinley C Carter	2388868
EPA 200.8 Rev. 5.4	02/21/2023	02/23/2023 13:50	George D Taylor	02/24/2023 18:51	Conrad Hartmann	2388868
EPA 300.0 Rev. 2.1	02/21/2023			03/02/2023 06:43	Judith K. Clark	2388861
EPA 350.1 Rev. 2.0	02/21/2023			02/28/2023 11:57	Ping Hua	2388862
EPA 351.2 Rev. 2.0	02/21/2023	03/07/2023 15:37	Simonne.V. Calhoun	03/10/2023 12:58	Samantha L Bates	2388862
EPA 353.2 Rev. 2.0	02/21/2023			02/23/2023 10:08	Beverly Y. Sanders	2388862
EPA 365.1 Rev. 2.0	02/21/2023	02/22/2023 13:36	Adam P Silver	02/23/2023 14:04	Simonne.V. Calhoun	2388862
EPA 8321B	02/21/2023	02/21/2023 12:00	Manjita Shrestha	02/21/2023 15:20	Manjita Shrestha	2388867
	02/21/2023	02/21/2023 12:00	Manjita Shrestha	02/21/2023 23:31	Manjita Shrestha	2388867
	02/21/2023	02/23/2023 12:00	Hoor Shaik	02/23/2023 23:13	Juyoung Kim	2388867
SM 2320 B-2011	02/21/2023			02/27/2023 20:03	Chandler E Cox	2388861
SM 2340 B-2011	02/21/2023			03/06/2023 18:03	McKinley C Carter	2388868
SM 2540 D-2015	02/21/2023			02/24/2023 16:46	Yijie Li	2388861
SM 4500-F- C-2011	02/21/2023			02/27/2023 20:03	Chandler E Cox	2388861
SM 5310 B-2011	02/21/2023			02/23/2023 03:47	Elise M. Gillis	2388862