

Chemical Analysis Report

TLH-ROC-2022-08-25-02

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

Event Description: **Run 5**
Request ID: **RQ-2022-07-25-20**
Customer: **TLH-ROC**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
2600 Blair Stone Rd
Tallahassee, FL 32399
Attn: Michael Eckles

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Certified by: Thekkekalathil Chandrasekhar, Environmental Consultant

Date Certified: 16-SEP-2022 10:19



Case Narrative

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

Results for the following analytical 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: Welaunee Creek

Collection Date/Time: 08/25/2022 11:20

Field ID: G1TLHR0149

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2352498	DEP SOP: NU-094-1	Color (true)	63		PCU	P419357	
	EPA 180.1 Rev. 2.0	Turbidity	7.3		NTU	P418702	
	EPA 300.0 Rev. 2.1	Chloride	8.7		mg Cl/L	P419468	
		Sulfate	0.75		mg SO4/L	P419471	
	SM 2320 B-2011	Total Alkalinity	14		mg CaCO3/L	P419032	
	SM 2540 C-2011	TDS	41		mg/L	P419261	
	SM 2540 D-2011	TSS	7	I	mg/L	P419200	
	SM 4500-F- C-2011	Fluoride	0.087	I	mg F/L	P419391	
2352499	EPA 350.1 Rev. 2.0	Ammonia-N	0.12		mg N/L	P418887	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.65		mg N/L	P418910	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.21		mg N/L	P419052	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P418914	
	SM 5310 B-2011	Organic Carbon	6.3		mg C/L	P419161	
2352504	EPA 8321B	2,4-D	0.0062	I	ug/L	P418839	
		Acesulfame K	0.10	U	ug/L	P418641	
		2,4,5-T	0.0040	U	ug/L	P418839	
		AMPA	0.10	U	ug/L	P418641	
		Acetaminophen	0.0080	U	ug/L	P418839	
		Acetamiprid	0.0020	U	ug/L	P418839	
		Endothall	0.25	U	ug/L	P418641	MS
		Glufosinate	0.10	U	ug/L	P418641	
		Glyphosate	0.10	U	ug/L	P418641	
		Afidopyropen	0.0020	U	ug/L	P418839	
		Bentazon	8.0E-04	U	ug/L	P418839	
		Sucralose	0.095		ug/L	P418641	
		Benzovindiflupyr	0.0020	U	ug/L	P418839	
		Carbamazepine	8.0E-04	U	ug/L	P418839	
		Clothianidin	0.0020	U	ug/L	P418839	
		Dinotefuran	0.0020	U	ug/L	P418839	
		Diuron	0.0021	I	ug/L	P418839	
		Fenuron	0.032	U	ug/L	P418839	
		Fluridone	8.0E-04	U	ug/L	P418839	
		Imazapyr	0.0040	U	ug/L	P418839	
		Hydrocodone	0.0020	U	ug/L	P418839	
		Ibuprofen	0.080	U	ug/L	P418839	
		Imidacloprid	0.0020	U	ug/L	P418839	
		Linuron	0.0040	U	ug/L	P418839	
		Mandestrobin	0.0020	U	ug/L	P418839	
		MCP	0.0040	U	ug/L	P418839	
		Naproxen	0.0080	U	ug/L	P418839	
		Primidone	0.0040	U	ug/L	P418839	MS
		Pyraclostrobin	0.0020	U	ug/L	P418839	
		Silvex	0.0040	U	ug/L	P418839	
		Thiamethoxam	0.0020	U	ug/L	P418839	

Field ID: G1TLHR0149

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2352504	EPA 8321B	Tolfenpyrad	0.0020	U	ug/L	P418839	
		Triclopyr	0.0040	U	ug/L	P418839	
2352505	EPA 200.7 Rev. 4.4	Calcium	5.61		mg/L	P418827	
		Iron	1.28E+03		ug/L	P418827	
		Magnesium	2.46		mg/L	P418827	
		Potassium	2.2		mg/L	P418827	
		Sodium	4.0		mg/L	P418827	
		Strontium	12.3		ug/L	P418827	
		Tin	3.0	U	ug/L	P418827	
		Titanium	1.3	I	ug/L	P418827	
		Vanadium	2.0	U	ug/L	P418827	
		Zinc	5.0	U	ug/L	P418827	
	EPA 200.8 Rev. 5.4	Aluminum	139		ug/L	P418827	
		Antimony	0.050	U	ug/L	P418827	
		Arsenic	0.39		ug/L	P418827	
		Barium	15.8		ug/L	P418827	
		Beryllium	0.019	I	ug/L	P418827	
		Boron	17.9		ug/L	P418827	
		Cadmium	0.020	U	ug/L	P418827	
		Chromium	0.40	U	ug/L	P418827	
		Cobalt	0.200		ug/L	P418827	
		Copper	0.40	U	ug/L	P418827	
		Lead	0.20	U	ug/L	P418827	
		Manganese	71.3		ug/L	P418827	
		Molybdenum	0.15	U	ug/L	P418827	
		Nickel	0.50	U	ug/L	P418827	
		Selenium	0.20	U	ug/L	P418827	
		Silver	0.010	U	ug/L	P418827	
		Thallium	0.10	U	ug/L	P418827	
	SM 2340 B-2011	Hardness	24.1		mg/L	P418827	

Ref. Method and Comment:

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

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P419357

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P418702

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P418827

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: P418827

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: P419468

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: P419471

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P418887

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P418910

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P419052

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P418914

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

Reference Method: EPA 8321B
Batch ID: P418641

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: P418839

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: P418839

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	0.0040	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: P419032

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

Reference Method: SM 2540 C-2011
Batch ID: P419261

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P419200

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P419391

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P419161

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: P419357

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

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P418702

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P418827

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	106		P	85 - 115
Iron	111		P	85 - 115
Magnesium	103		P	85 - 115
Potassium	107		P	85 - 115
Sodium	102		P	85 - 115
Strontium	105		P	85 - 115
Tin	110		P	85 - 115
Titanium	108		P	85 - 115
Vanadium	107		P	85 - 115
Zinc	109		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P418827

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	98.6		P	85 - 115
Antimony	102		P	85 - 115
Arsenic	99.9		P	85 - 115
Barium	103		P	85 - 115
Beryllium	100		P	85 - 115
Boron	101		P	85 - 115
Cadmium	97.5		P	85 - 115
Chromium	98.3		P	85 - 115
Cobalt	97.0		P	85 - 115
Copper	95.4		P	85 - 115
Lead	98.4		P	85 - 115
Manganese	98.3		P	85 - 115
Molybdenum	102		P	85 - 115
Nickel	98.6		P	85 - 115
Selenium	95.5		P	85 - 115
Silver	97.0		P	85 - 115
Thallium	100		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P419468

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	99.2		P	90 - 110

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P419471

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P418887

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	94.6		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P418910

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P419052

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	103		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P418914

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

Reference Method: EPA 8321B
Batch ID: P418641

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	117		P	40 - 150
AMPA	112		P	40 - 150
Endothall	103		P	40 - 150
Glufosinate	117		P	40 - 150
Glyphosate	107		P	40 - 150
Sucralose	115		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P418839

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	72.6		P	40 - 150
2,4,5-T	67.1		P	40 - 150
Acetaminophen	108		P	30 - 150
Acetamiprid	72.1		P	40 - 150
Afidopyropen	62.7		P	30 - 150
Bentazon	82.1		P	30 - 150
Benzovindiflupyr	70.1		P	40 - 150
Carbamazepine	81.4		P	40 - 150
Clothianidin	77.8		P	40 - 150
Dinotefuran	73.6		P	40 - 150
Diuron	89.0		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P418839

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fenuron	99.5		P	40 - 150
Fluridone	84.5		P	40 - 150
Hydrocodone	112		P	40 - 150
Ibuprofen	59.2		P	40 - 150
Imazapyr	73.8		P	40 - 150
Imidacloprid	93.3		P	40 - 150
Linuron	90.9		P	40 - 150
Mandestrobin	86.3		P	40 - 150
MCPP	75.2		P	40 - 150
Naproxen	84.3		P	40 - 150
Primidone	70.9		P	40 - 150
Pyraclostrobin	83.0		P	40 - 150
Silvex	59.1		P	40 - 150
Thiamethoxam	97.2		P	40 - 150
Tolfenpyrad	44.1		P	30 - 150
Triclopyr	54.9		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P419032

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	94 - 106

Reference Method: SM 4500-F- C-2011

Batch ID: P419391

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

Reference Method: SM 5310 B-2011

Batch ID: P419161

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.0		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P418827

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2351697	Calcium	105		P	80 - 120
2351697	Iron	112	115	P/P	80 - 120
2351697	Magnesium	105		P	80 - 120
2351697	Potassium	108	110	P/P	80 - 120
2351697	Sodium	103		P	80 - 120
2351697	Strontium	106	103	P/P	80 - 120
2351697	Tin	113	109	P/P	80 - 120
2351697	Titanium	108	107	P/P	80 - 120
2351697	Vanadium	110	108	P/P	80 - 120
2351697	Zinc	110	109	P/P	80 - 120
2351698	Calcium	116		P	80 - 120
2351698	Iron	116		P	80 - 120
2351698	Magnesium	112		P	80 - 120
2351698	Potassium	113		P	80 - 120
2351698	Sodium	110		P	80 - 120
2351698	Strontium	108		P	80 - 120
2351698	Tin	113		P	80 - 120
2351698	Titanium	112		P	80 - 120
2351698	Vanadium	112		P	80 - 120
2351698	Zinc	112		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P418827

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2351697	Aluminum	101	99.7	P/P	80 - 120
2351697	Antimony	105	104	P/P	80 - 120
2351697	Arsenic	104	101	P/P	80 - 120
2351697	Barium	103	101	P/P	80 - 120
2351697	Beryllium	100	103	P/P	80 - 120
2351697	Boron	100	99.8	P/P	80 - 120
2351697	Cadmium	101	100	P/P	80 - 120
2351697	Chromium	102	101	P/P	80 - 120
2351697	Cobalt	99.6	98.5	P/P	80 - 120
2351697	Copper	97.5	96.5	P/P	80 - 120
2351697	Lead	102	100	P/P	80 - 120
2351697	Manganese	99.8	97.3	P/P	80 - 120
2351697	Molybdenum	109	107	P/P	80 - 120
2351697	Nickel	99.8	98.6	P/P	80 - 120
2351697	Selenium	99.4	97.6	P/P	80 - 120
2351697	Silver	96.8	95.7	P/P	80 - 120
2351697	Thallium	105	103	P/P	80 - 120
2351698	Aluminum	104		P	80 - 120
2351698	Antimony	108		P	80 - 120
2351698	Arsenic	107		P	80 - 120
2351698	Barium	109		P	80 - 120
2351698	Beryllium	107		P	80 - 120
2351698	Boron	114		P	80 - 120
2351698	Cadmium	104		P	80 - 120
2351698	Chromium	105		P	80 - 120
2351698	Cobalt	101		P	80 - 120
2351698	Copper	98.8		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P418827

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2351698	Lead	107		P	80 - 120
2351698	Manganese	107		P	80 - 120
2351698	Molybdenum	113		P	80 - 120
2351698	Nickel	102		P	80 - 120
2351698	Selenium	98.9		P	80 - 120
2351698	Silver	100		P	80 - 120
2351698	Thallium	108		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P419468

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2352704	Chloride	96.6		P	90 - 110
2352758	Chloride	97.6		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P419471

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2352704	Sulfate	93.3		P	90 - 110
2352758	Sulfate	95.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P418887

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2352508	Ammonia-N	99.4	98.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P418910

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2352499	Kjeldahl Nitrogen	105	106	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P419052

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2352375	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P418914

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2352445	Total-P	107	108	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P418641

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2352247	Acesulfame K	84.1	83.2	P/P	40 - 150
2352247	AMPA	98.2	98.8	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P418641

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2352247	Endothall	171	174	F/F	40 - 150
2352247	Glufosinate	123	103	P/P	40 - 150
2352247	Glyphosate	119	120	P/P	40 - 150
2352247	Sucralose	110	110	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P418839

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2352724	2,4-D	77.7	80.5	P/P	40 - 150
2352724	2,4,5-T	81.7	83.6	P/P	40 - 150
2352724	Acetaminophen	74.0	83.6	P/P	30 - 150
2352724	Acetamiprid	47.7	45.5	P/P	40 - 150
2352724	Afidopyropen	55.7	67.7	P/P	30 - 150
2352724	Bentazon	124	121	P/P	30 - 150
2352724	Benzovindiflupyr	78.3	83.5	P/P	40 - 150
2352724	Carbamazepine	74.1	76.9	P/P	40 - 150
2352724	Clothianidin	49.8	54.6	P/P	40 - 150
2352724	Dinotefuran	94.1	108	P/P	40 - 150
2352724	Diuron	85.6	80.7	P/P	40 - 150
2352724	Fenuron	97.5	97.1	P/P	40 - 150
2352724	Fluridone	105	106	P/P	40 - 150
2352724	Hydrocodone	104	113	P/P	40 - 150
2352724	Ibuprofen	67.1	81.2	P/P	40 - 150
2352724	Imazapyr	83.1	96.8	P/P	40 - 150
2352724	Imidacloprid	66.1	74.2	P/P	40 - 150
2352724	Linuron	91.8	99.3	P/P	40 - 150
2352724	Mandestrobin	98.0	93.3	P/P	40 - 150
2352724	MCP	88.9	95.3	P/P	40 - 150
2352724	Naproxen	125	117	P/P	40 - 150
2352724	Primidone	44.9	35.3	P/F	40 - 150
2352724	Pyraclostrobin	92.5	94.9	P/P	40 - 150
2352724	Silvex	73.9	79.1	P/P	40 - 150
2352724	Thiamethoxam	82.0	89.7	P/P	40 - 150
2352724	Tolfenpyrad	57.1	61.2	P/P	30 - 150
2352724	Triclopyr	73.3	81.5	P/P	40 - 150

Reference Method: SM 4500-F- C-2011

Batch ID: P419391

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2352507	Fluoride	97.9	98.7	P/P	94 - 104

Reference Method: SM 5310 B-2011

Batch ID: P419161

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2352547	Organic Carbon	95.2	95.6	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P419357

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352444	Color (true)	1.63	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P418702

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352318	Turbidity	8.61	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P418827

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2351697	Calcium	4.94	Spike	P	0 - 20
2351697	Iron	1.99	Spike	P	0 - 20
2351697	Magnesium	0.545	Spike	P	0 - 20
2351697	Potassium	0.862	Spike	P	0 - 20
2351697	Sodium	3.79	Spike	P	0 - 20
2351697	Strontium	2.42	Spike	P	0 - 20
2351697	Tin	3.64	Spike	P	0 - 20
2351697	Titanium	1.18	Spike	P	0 - 20
2351697	Vanadium	2.02	Spike	P	0 - 20
2351697	Zinc	1.63	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P418827

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2351697	Aluminum	0.899	Spike	P	0 - 20
2351697	Antimony	1.25	Spike	P	0 - 20
2351697	Arsenic	2.31	Spike	P	0 - 20
2351697	Barium	1.48	Spike	P	0 - 20
2351697	Beryllium	2.58	Spike	P	0 - 20
2351697	Boron	0.182	Spike	P	0 - 20
2351697	Cadmium	0.673	Spike	P	0 - 20
2351697	Chromium	1.61	Spike	P	0 - 20
2351697	Cobalt	1.13	Spike	P	0 - 20
2351697	Copper	1.00	Spike	P	0 - 20
2351697	Lead	1.61	Spike	P	0 - 20
2351697	Manganese	1.51	Spike	P	0 - 20
2351697	Molybdenum	1.87	Spike	P	0 - 20
2351697	Nickel	1.22	Spike	P	0 - 20
2351697	Selenium	1.80	Spike	P	0 - 20
2351697	Silver	1.19	Spike	P	0 - 20
2351697	Thallium	1.19	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P419468

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352704	Chloride	0.0217	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P419471

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352704	Sulfate	0.0618	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P418887

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352508	Ammonia-N	0.491	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P418910

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352499	Kjeldahl Nitrogen	0.867	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P419052

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352375	NO2NO3-N	0.304	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P418914

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352445	Total-P	0.651	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P418641

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352247	Acesulfame K	0.987	Spike	P	0 - 30
2352247	AMPA	0.614	Spike	P	0 - 30
2352247	Endothall	1.59	Spike	P	0 - 30
2352247	Glufosinate	17.2	Spike	P	0 - 30
2352247	Glyphosate	1.40	Spike	P	0 - 30
2352247	Sucralose	0.450	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P418839

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352724	2,4-D	3.61	Spike	P	0 - 30
2352724	2,4,5-T	2.26	Spike	P	0 - 30
2352724	Acetaminophen	12.1	Spike	P	0 - 30
2352724	Acetamiprid	4.64	Spike	P	0 - 30
2352724	Afidopyropen	19.4	Spike	P	0 - 30
2352724	Bentazon	1.98	Spike	P	0 - 30
2352724	Benzovindiflupyr	6.34	Spike	P	0 - 30
2352724	Carbamazepine	3.75	Spike	P	0 - 30
2352724	Clothianidin	9.25	Spike	P	0 - 30
2352724	Dinotefuran	13.7	Spike	P	0 - 30
2352724	Diuron	6.01	Spike	P	0 - 30
2352724	Fenuron	0.455	Spike	P	0 - 30
2352724	Fluridone	1.59	Spike	P	0 - 30
2352724	Hydrocodone	8.10	Spike	P	0 - 30
2352724	Ibuprofen	19.0	Spike	P	0 - 30
2352724	Imazapyr	15.2	Spike	P	0 - 30
2352724	Imidacloprid	11.5	Spike	P	0 - 30
2352724	Linuron	7.90	Spike	P	0 - 30
2352724	Mandestrobin	4.93	Spike	P	0 - 30
2352724	MCP	6.97	Spike	P	0 - 30
2352724	Naproxen	6.99	Spike	P	0 - 30
2352724	Primidone	24.0	Spike	P	0 - 30
2352724	Pyraclostrobin	2.62	Spike	P	0 - 30
2352724	Silvex	6.75	Spike	P	0 - 30
2352724	Thiamethoxam	9.02	Spike	P	0 - 30
2352724	Tolfenpyrad	6.89	Spike	P	0 - 30
2352724	Triclopyr	10.5	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P419032

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352507	Total Alkalinity	1.94	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2011
Batch ID: P419261

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352507	TDS	3.15	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P419391

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352507	Fluoride	0.509	Spike	P	0 - 1.6

Quality Assurance Report

Precision

Reference Method: SM 5310 B-2011
Batch ID: P419161

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352547	Organic Carbon	0.285	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2352504

Field Sample ID: G1TLHR0149

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	81.3	P	30 - 160
EPA 8321B	Acetaminophen-d4	77.4	P	30 - 160
EPA 8321B	Carbamazepine-d10	95.4	P	30 - 160
EPA 8321B	Diuron-d6	90.9	P	30 - 160
EPA 8321B	Endothall-d6	116	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	95.6	P	30 - 160
EPA 8321B	Ibuprofen-d3	73.1	P	30 - 160
EPA 8321B	Primidone-d5	37.2	P	30 - 160
EPA 8321B	Sucralose-d6	121	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A114350

Included Lab Sample IDs: 2352498

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

Reference Method: EPA 8321B

Run ID: A114368

Included Lab Sample IDs: 2352504

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	113	113	P/P	60 - 160
Sucralose	114	113	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A114374

Included Lab Sample IDs: 2352504

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	101	112	P/P	60 - 160
Endothall	94.3	113	P/P	60 - 160
Glufosinate	129	130	P/P	60 - 160
Glyphosate	104	108	P/P	60 - 160

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A114437

Included Lab Sample IDs: 2352499

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	96.1	96.3	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A114486

Included Lab Sample IDs: 2352499

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A114500

Included Lab Sample IDs: 2352499

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

Reference Method: SM 2320 B-2011

Run ID: A114506

Included Lab Sample IDs: 2352498

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	105	102	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A114510

Included Lab Sample IDs: 2352499

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	103	102	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A114555

Included Lab Sample IDs: 2352499

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.3	95.6	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A114566

Included Lab Sample IDs: 2352505

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	95.7	95.0	P/P	90 - 110
Antimony	97.9	98.2	P/P	90 - 110
Arsenic	99.8	98.2	P/P	90 - 110
Barium	97.3	96.0	P/P	90 - 110
Beryllium	91.4	90.7	P/P	90 - 110
Boron	99.4	95.0	P/P	90 - 110
Cadmium	102	101	P/P	90 - 110
Chromium	98.3	97.1	P/P	90 - 110
Cobalt	97.5	95.2	P/P	90 - 110
Manganese	98.6	97.7	P/P	90 - 110
Nickel	96.9	96.0	P/P	90 - 110
Selenium	98.2	96.3	P/P	90 - 110
Silver	95.9	95.1	P/P	90 - 110
Thallium	101	100	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A114593

Included Lab Sample IDs: 2352505

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Copper	103	102	P/P	90 - 110
Lead	94.4	94.0	P/P	90 - 110
Molybdenum	100	100	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A114600

Included Lab Sample IDs: 2352498

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.7	100	P/P	90 - 110
Sulfate	99.9	100	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A114605

Included Lab Sample IDs: 2352504

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
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Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A114605
Included Lab Sample IDs: 2352504

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	89.8	93.3	P/P	50 - 150
2,4,5-T	106	120	P/P	50 - 150
Acetaminophen	92.2	95.1	P/P	60 - 160
Acetamiprid	85.7	85.3	P/P	50 - 150
Afidopyropen	95.0	92.7	P/P	50 - 150
Bentazon	92.5	91.0	P/P	50 - 160
Benzovindiflupyr	99.0	115	P/P	50 - 150
Carbamazepine	117	95.6	P/P	60 - 150
Clothianidin	104	103	P/P	60 - 150
Dinotefuran	115	94.9	P/P	50 - 150
Diuron	91.4	101	P/P	60 - 160
Fenuron	83.1	88.1	P/P	60 - 150
Fluridone	109	104	P/P	60 - 160
Hydrocodone	106	77.2	P/P	60 - 150
Ibuprofen	142	147	P/P	50 - 160
Imazapyr	97.6	96.1	P/P	50 - 150
Imidacloprid	103	74.4	P/P	60 - 150
Linuron	106	111	P/P	60 - 150
Mandestrobin	97.1	112	P/P	50 - 150
MCPP	94.8	102	P/P	50 - 150
Naproxen	132	127	P/P	50 - 160
Primidone	111	112	P/P	60 - 150
Pyraclostrobin	104	111	P/P	60 - 150
Silvex	85.6	61.7	P/P	50 - 150
Thiamethoxam	96.8	111	P/P	50 - 150
Tolfenpyrad	104	125	P/P	60 - 150
Triclopyr	95.1	86.9	P/P	50 - 150

Reference Method: DEP SOP: NU-094-1
Run ID: A114636
Included Lab Sample IDs: 2352498

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	97.9	97.6	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Run ID: A114660
Included Lab Sample IDs: 2352498

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	102	100	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A114713
Included Lab Sample IDs: 2352505

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	106	106	P/P	90 - 110
Iron	105	107	P/P	90 - 110
Magnesium	105	107	P/P	90 - 110
Potassium	102	104	P/P	90 - 110

Quality Assurance Report

Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A114713

Included Lab Sample IDs: 2352505

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sodium	102	103	P/P	90 - 110
Strontium	98.9	100	P/P	90 - 110
Tin	103	107	P/P	90 - 110
Titanium	99.8	103	P/P	90 - 110
Vanadium	101	103	P/P	90 - 110
Zinc	101	104	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)	98.2					1.63	
EPA 180.1 Rev. 2.0	Turbidity	95.8					8.61	
EPA 200.7 Rev. 4.4	Calcium	106	105	116				4.94
	Iron	111	112	115	116			1.99
	Magnesium	103	105	112				0.545
	Potassium	107	108	110	113			0.862
	Sodium	102	103	110				3.79
	Strontium	105	106	103	108			2.42
	Tin	110	113	109	113			3.64
	Titanium	108	108	107	112			1.18
	Vanadium	107	110	108	112			2.02
	Zinc	109	110	109	112			1.63
EPA 200.8 Rev. 5.4	Aluminum	98.6	101	99.7	104			0.899
	Antimony	102	105	104	108			1.25
	Arsenic	99.9	104	101	107			2.31
	Barium	103	103	101	109			1.48
	Beryllium	100	100	103	107			2.58
	Boron	101	100	99.8	114			0.182
	Cadmium	97.5	101	100	104			0.673
	Chromium	98.3	102	101	105			1.61
	Cobalt	97.0	99.6	98.5	101			1.13
	Copper	95.4	97.5	96.5	98.8			1.00
	Lead	98.4	102	100	107			1.61
	Manganese	98.3	99.8	97.3	107			1.51
	Molybdenum	102	109	107	113			1.87
	Nickel	98.6	99.8	98.6	102			1.22
	Selenium	95.5	99.4	97.6	98.9			1.80
	Silver	97.0	96.8	95.7	100			1.19
	Thallium	100	105	103	108			1.19
EPA 300.0 Rev. 2.1	Chloride	99.2	96.6	97.6			0.0217	
	Sulfate	97.8	93.3	95.6			0.0618	
EPA 350.1 Rev. 2.0	Ammonia-N	94.6	99.4	98.8				0.491
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	104	105	106				0.867
EPA 353.2 Rev. 2.0	NO2NO3-N	103	102	102				0.304
EPA 365.1 Rev. 2.0	Total-P	105	107	108				0.651
EPA 8321B	2,4-D	72.6	80.5	77.7				3.61
	2,4,5-T	67.1	83.6	81.7				2.26
	Acesulfame K	117	83.2	84.1				0.987
	Acetaminophen	108	74.0	83.6				12.1
	Acetamiprid	72.1	47.7	45.5				4.64
	Afidopyropen	62.7	55.7	67.7				19.4
	AMPA	112	98.2	98.8				0.614
	Bentazon	82.1	121	124				1.98
	Benzovindiflupyr	70.1	78.3	83.5				6.34
	Carbamazepine	81.4	74.1	76.9				3.75
	Clothianidin	77.8	49.8	54.6				9.25
	Dinotefuran	73.6	94.1	108				13.7
	Diuron	89.0	85.6	80.7				6.01
	Endothall	103	171	174				1.59
	Fenuron	99.5	97.5	97.1				0.455
	Fluridone	84.5	105	106				1.59
	Glufosinate	117	123	103				17.2
	Glyphosate	107	119	120				1.40
	Hydrocodone	112	104	113				8.10

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision LCS	SMP	MS
EPA 8321B	Ibuprofen	59.2	81.2	67.1			19.0
	Imazapyr	73.8	96.8	83.1			15.2
	Imidacloprid	93.3	66.1	74.2			11.5
	Linuron	90.9	91.8	99.3			7.90
	Mandestrobin	86.3	98.0	93.3			4.93
	MCPP	75.2	95.3	88.9			6.97
	Naproxen	84.3	117	125			6.99
	Primidone	70.9	44.9	35.3			24.0
	Pyraclostrobin	83.0	92.5	94.9			2.62
	Silvex	59.1	79.1	73.9			6.75
	Sucralose	115	110	110			0.450
	Thiamethoxam	97.2	82.0	89.7			9.02
	Tolfenpyrad	44.1	57.1	61.2			6.89
	Triclopyr	54.9	81.5	73.3			10.5
SM 2320 B-2011	Total Alkalinity	101				1.94	
SM 2540 C-2011	TDS					3.15	
SM 4500-F- C-2011	Fluoride	101	97.9	98.7			0.509
SM 5310 B-2011	Organic Carbon	97.0	95.2	95.6			0.285

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2352498
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2352498
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2352505
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2352505
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2352498
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2352498
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2352499
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2352499
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2352499
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2352499
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2352504
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2352498
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2352505
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2352498
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2352498
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2352498
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2352499

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	08/25/2022			08/25/2022 15:37	Anna M. Plaviak	2352498
EPA 180.1 Rev. 2.0	08/25/2022			08/25/2022 14:36	Chandler E Cox	2352498
EPA 200.7 Rev. 4.4	08/25/2022	08/30/2022 10:20	Megan Whitefoot	09/14/2022 03:10	McKinley C Carter	2352505
EPA 200.8 Rev. 5.4	08/25/2022	08/30/2022 10:20	Megan Whitefoot	09/06/2022 18:26	Emily M Philpot	2352505
	08/25/2022	08/30/2022 10:20	Megan Whitefoot	09/07/2022 22:59	Megan Whitefoot	2352505
EPA 300.0 Rev. 2.1	08/25/2022			09/09/2022 17:54	Anna M. Plaviak	2352498
EPA 350.1 Rev. 2.0	08/25/2022			08/30/2022 15:13	Judith K. Clark	2352499
EPA 351.2 Rev. 2.0	08/25/2022	08/31/2022 14:32	Samantha L Bates	09/01/2022 14:21	Alexandra J Mattheus	2352499
EPA 353.2 Rev. 2.0	08/25/2022			09/02/2022 10:27	Judith K. Clark	2352499
EPA 365.1 Rev. 2.0	08/25/2022	08/31/2022 13:30	Adam P Silver	09/01/2022 12:35	James L Waggeberby	2352499
EPA 8321B	08/25/2022	08/26/2022 10:00	Umesh Chiluwal	08/26/2022 13:24	Umesh Chiluwal	2352504
	08/25/2022	08/26/2022 10:00	Umesh Chiluwal	08/26/2022 21:56	Umesh Chiluwal	2352504
	08/25/2022	09/01/2022 09:00	June Rhew	09/08/2022 01:47	Juyoung Kim	2352504
SM 2320 B-2011	08/25/2022			09/01/2022 18:55	Dale L. Simmons	2352498
SM 2340 B-2011	08/25/2022			09/14/2022 03:10	McKinley C Carter	2352505
SM 2540 C-2011	08/25/2022			08/30/2022 14:29	Yijie Li	2352498
SM 2540 D-2011	08/25/2022			08/30/2022 14:29	Yijie Li	2352498
SM 4500-F- C-2011	08/25/2022			09/09/2022 20:24	Dale L. Simmons	2352498
SM 5310 B-2011	08/25/2022			09/02/2022 20:42	Khloe J Berg	2352499