

Chemical Analysis Report

NW-DIST-2022-12-02-01

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

Event Description: **Walton Washinton Run**
Request ID: **RQ-2022-11-21-07**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
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160 W Government Street
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Certified by: Colin Wright, Program Administrator

Date Certified: 27-DEC-2022 11:14

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

Case Narrative

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

Results for the following analytical groups are included in this report: 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: Bay Branch below Coy Burgess Loop

Collection Date/Time: 11/30/2022 11:40

Field ID: G3NW0231

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2372421	EPA 8321B	2,4-D	0.0021	I	ug/L	P423039	
		Acesulfame K	0.10	U	ug/L	P423035	
		2,4,5-T	0.0040	U	ug/L	P423039	
		AMPA	0.10	U	ug/L	P423035	
		Acetaminophen	0.0080	U	ug/L	P423039	
		Acetamiprid	0.0020	U	ug/L	P423039	
		Endothall	0.25	U	ug/L	P423035	
		Glufosinate	0.10	U	ug/L	P423035	
		Glyphosate	0.32	I	ug/L	P423035	
		Afidopyropen	0.0020	U	ug/L	P423039	
		Bentazon	8.0E-04	U	ug/L	P423039	
		Sucralose	0.15		ug/L	P423035	
		Benzovindiflupyr	0.0020	U	ug/L	P423039	
		Carbamazepine	8.0E-04	U	ug/L	P423039	
		Clothianidin	0.0020	U	ug/L	P423039	
		Dinotefuran	0.0020	U	ug/L	P423039	
		Diuron	0.0020	U	ug/L	P423039	
		Fenuron	0.032	U	ug/L	P423039	
		Fluridone	8.0E-04	U	ug/L	P423039	
		Imazapyr	0.015	I	ug/L	P423039	
		Hydrocodone	0.0020	U	ug/L	P423039	
		Ibuprofen	0.20	U	ug/L	P423039	
		Imidacloprid	0.016		ug/L	P423039	MS
		Linuron	0.0040	U	ug/L	P423039	
		Mandestrobin	0.0020	U	ug/L	P423039	
		MCPP	0.0040	U	ug/L	P423039	
		Naproxen	0.0080	U	ug/L	P423039	
		Primidone	0.0040	U	ug/L	P423039	
		Pyraclostrobin	0.0020	U	ug/L	P423039	
		Silvex	0.0040	U	ug/L	P423039	
		Thiamethoxam	0.0020	U	ug/L	P423039	MS
		Tolfenpyrad	0.0020	U	ug/L	P423039	
		Triclopyr	0.0040	U	ug/L	P423039	
2372422	EPA 200.7 Rev. 4.4	Calcium	5.17		mg/L	P423137	
		Iron	670		ug/L	P423137	
		Magnesium	1.17		mg/L	P423137	
		Potassium	1.5		mg/L	P423137	
		Sodium	2.4		mg/L	P423137	
		Strontium	13.7		ug/L	P423137	
		Tin	3.0	U	ug/L	P423137	
		Titanium	10.3		ug/L	P423137	
		Vanadium	2.0	U	ug/L	P423137	
		Zinc	12	I	ug/L	P423137	
	EPA 200.8 Rev. 5.4	Aluminum	448		ug/L	P423137	

Field ID: G3NW0231

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2372422	EPA 200.8 Rev. 5.4	Antimony	0.093	I	ug/L	P423137	
		Arsenic	0.39		ug/L	P423137	
		Barium	12.7		ug/L	P423137	
		Beryllium	0.024	I	ug/L	P423137	
		Boron	14.0		ug/L	P423137	
		Cadmium	0.020	U	ug/L	P423137	
		Chromium	0.56	I	ug/L	P423137	
		Cobalt	0.243		ug/L	P423137	
		Copper	0.92		ug/L	P423137	
		Lead	0.60		ug/L	P423137	
		Manganese	29.6		ug/L	P423137	
		Molybdenum	0.36	I	ug/L	P423137	
		Nickel	0.50	U	ug/L	P423137	
		Selenium	0.20	U	ug/L	P423137	
		Silver	0.010	U	ug/L	P423137	
		Thallium	0.10	U	ug/L	P423137	
	SM 2340 B-2011	Hardness	17.8		mg/L	P423137	

Ref. Method and Comment:

EPA 8321B: MS accuracy for bentazon could not be assessed due to high concentration of parameter in the spiked sample.

EPA 200.8 Rev. 5.4: The lead result was confirmed in the undigested sample on 12/16/2022.

Sample Location: Panther Creek upstream of SR280

Collection Date/Time: 11/30/2022 12:10

Field ID: G3NW0061

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2372415	DEP SOP: NU-094-1	Color (true)	92		PCU	P423051	
	EPA 180.1 Rev. 2.0	Turbidity	17		NTU	P423058	
	EPA 300.0 Rev. 2.1	Chloride	3.3		mg Cl/L	P423344	
		Sulfate	2.0		mg SO4/L	P423346	
	SM 2320 B-2011	Total Alkalinity	1.4	I	mg CaCO3/L	P423430	
	SM 2540 C-2015	TDS	40		mg/L	P423545	
	SM 2540 D-2015	TSS	15		mg/L	P423371	
	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P423841	
2372416	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	I	mg N/L	P423318	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.42		mg N/L	P423103	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.022		mg N/L	P423144	
	EPA 365.1 Rev. 2.0	Total-P	0.035		mg P/L	P423147	
	SM 5310 B-2011	Organic Carbon	13		mg C/L	P423117	

Ref. Method and Comment:

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

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P423051

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P423058

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P423137

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: P423137

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: P423344

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: P423346

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P423318

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423103

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P423144

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P423147

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

Reference Method: EPA 8321B
Batch ID: P423035

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: P423039

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: P423039

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: P423430

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

Reference Method: SM 2540 C-2015

Batch ID: P423545

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015

Batch ID: P423371

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011

Batch ID: P423841

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011

Batch ID: P423117

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: P423051

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	104		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P423058

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P423137

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	103		P	85 - 115
Iron	104		P	85 - 115
Magnesium	101		P	85 - 115
Potassium	96.1		P	85 - 115
Sodium	98.1		P	85 - 115
Strontium	99.9		P	85 - 115
Tin	101		P	85 - 115
Titanium	103		P	85 - 115
Vanadium	101		P	85 - 115
Zinc	101		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P423137

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	102		P	85 - 115
Antimony	98.2		P	85 - 115
Arsenic	104		P	85 - 115
Barium	102		P	85 - 115
Beryllium	96.5		P	85 - 115
Boron	102		P	85 - 115
Cadmium	103		P	85 - 115
Chromium	98.0		P	85 - 115
Cobalt	99.3		P	85 - 115
Copper	103		P	85 - 115
Lead	92.7		P	85 - 115
Manganese	97.5		P	85 - 115
Molybdenum	99.8		P	85 - 115
Nickel	104		P	85 - 115
Selenium	102		P	85 - 115
Silver	102		P	85 - 115
Thallium	92.8		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P423344

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P423346

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P423318

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	94.4		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423103

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P423144

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	104		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P423147

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

Reference Method: EPA 8321B
Batch ID: P423035

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	109		P	40 - 150
AMPA	83.9		P	40 - 150
Endothall	78.1		P	40 - 150
Glufosinate	70.2		P	40 - 150
Glyphosate	103		P	40 - 150
Sucralose	92.8		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P423039

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	96.5		P	40 - 150
2,4,5-T	106		P	40 - 150
Acetaminophen	88.2		P	30 - 150
Acetamiprid	89.0		P	40 - 150
Afidopyropen	62.4		P	30 - 150
Bentazon	96.0		P	30 - 150
Benzovindiflupyr	86.1		P	40 - 150
Carbamazepine	90.5		P	40 - 150
Clothianidin	96.2		P	40 - 150
Dinotefuran	94.9		P	40 - 150
Diuron	79.8		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P423039

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fenuron	97.0		P	40 - 150
Fluridone	91.3		P	40 - 150
Hydrocodone	94.3		P	40 - 150
Ibuprofen	91.6		P	40 - 150
Imazapyr	86.8		P	40 - 150
Imidacloprid	118		P	40 - 150
Linuron	79.3		P	40 - 150
Mandestrobin	87.0		P	40 - 150
MCPP	103		P	40 - 150
Naproxen	113		P	40 - 150
Primidone	98.5		P	40 - 150
Pyraclostrobin	85.1		P	40 - 150
Silvex	104		P	40 - 150
Thiamethoxam	92.7		P	40 - 150
Tolfenpyrad	62.4		P	30 - 150
Triclopyr	119		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P423430

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	96.6		P	94 - 106

Reference Method: SM 2540 C-2015

Batch ID: P423545

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	95.4		P	90 - 110

Reference Method: SM 2540 D-2015

Batch ID: P423371

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	92.3		P	85 - 106

Reference Method: SM 4500-F- C-2011

Batch ID: P423841

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.2		P	96 - 104

Reference Method: SM 5310 B-2011

Batch ID: P423117

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: P423137

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2372408	Calcium	103		P	80 - 120
2372408	Iron	102	101	P/P	80 - 120
2372408	Magnesium	102		P	80 - 120
2372408	Potassium	98.3	97.5	P/P	80 - 120
2372408	Sodium	97.0	95.3	P/P	80 - 120
2372408	Strontium	101	100	P/P	80 - 120
2372408	Tin	101	99.3	P/P	80 - 120
2372408	Titanium	105	104	P/P	80 - 120
2372408	Vanadium	101	101	P/P	80 - 120
2372408	Zinc	95.0	95.2	P/P	80 - 120
2372684	Calcium	97.3		P	80 - 120
2372684	Iron	102		P	80 - 120
2372684	Magnesium	98.8		P	80 - 120
2372684	Potassium	98.6		P	80 - 120
2372684	Sodium	96.9		P	80 - 120
2372684	Strontium	101		P	80 - 120
2372684	Tin	102		P	80 - 120
2372684	Titanium	106		P	80 - 120
2372684	Vanadium	102		P	80 - 120
2372684	Zinc	97.7		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P423137

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2372408	Aluminum	100	99.1	P/P	80 - 120
2372408	Antimony	101	99.7	P/P	80 - 120
2372408	Arsenic	106	105	P/P	80 - 120
2372408	Barium	103	102	P/P	80 - 120
2372408	Beryllium	95.9	95.1	P/P	80 - 120
2372408	Boron	104	102	P/P	80 - 120
2372408	Cadmium	105	105	P/P	80 - 120
2372408	Chromium	100	98.3	P/P	80 - 120
2372408	Cobalt	98.8	97.4	P/P	80 - 120
2372408	Copper	101	99.5	P/P	80 - 120
2372408	Lead	94.2	92.5	P/P	80 - 120
2372408	Manganese	99.6	97.2	P/P	80 - 120
2372408	Molybdenum	104	102	P/P	80 - 120
2372408	Nickel	104	102	P/P	80 - 120
2372408	Selenium	103	102	P/P	80 - 120
2372408	Silver	103	100	P/P	80 - 120
2372408	Thallium	95.9	96.1	P/P	80 - 120
2372684	Aluminum	101		P	80 - 120
2372684	Antimony	100		P	80 - 120
2372684	Arsenic	103		P	80 - 120
2372684	Barium	100		P	80 - 120
2372684	Beryllium	96.2		P	80 - 120
2372684	Boron	105		P	80 - 120
2372684	Cadmium	104		P	80 - 120
2372684	Chromium	99.1		P	80 - 120
2372684	Cobalt	97.6		P	80 - 120
2372684	Copper	101		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P423137

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2372684	Lead	93.6		P	80 - 120
2372684	Manganese	96.8		P	80 - 120
2372684	Molybdenum	101		P	80 - 120
2372684	Nickel	102		P	80 - 120
2372684	Selenium	101		P	80 - 120
2372684	Silver	100		P	80 - 120
2372684	Thallium	93.8		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P423344

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2372596	Chloride	94.6		P	90 - 110
2372820	Chloride	100		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P423346

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2372596	Sulfate	96.5		P	90 - 110
2372820	Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P423318

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2372318	Ammonia-N	97.6	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423103

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2372318	Kjeldahl Nitrogen	95.2	95.8	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P423144

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2372330	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P423147

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2372456	Total-P	100	102	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P423035

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2372142	Acesulfame K	56.5	61.8	P/P	40 - 150
2372142	AMPA	86.6	80.6	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P423035

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2372142	Endothall	64.6	66.0	P/P	40 - 150
2372142	Glufosinate	71.5	78.1	P/P	40 - 150
2372142	Glyphosate	101	91.3	P/P	40 - 150
2372142	Sucralose	101	91.4	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P423039

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2372142	2,4-D	116	110	P/P	40 - 150
2372142	2,4,5-T	123	113	P/P	40 - 150
2372142	Acetaminophen	111	106	P/P	30 - 150
2372142	Acetamiprid	84.7	79.0	P/P	40 - 150
2372142	Afidopyropen	71.8	66.4	P/P	30 - 150
2372142	Benzovindiflupyr	85.7	85.1	P/P	40 - 150
2372142	Carbamazepine	90.3	88.2	P/P	40 - 150
2372142	Clothianidin	127	121	P/P	40 - 150
2372142	Dinotefuran	138	132	P/P	40 - 150
2372142	Diuron	70.6	63.5	P/P	40 - 150
2372142	Fenuron	94.5	89.0	P/P	40 - 150
2372142	Fluridone	89.0	84.3	P/P	40 - 150
2372142	Hydrocodone	123	116	P/P	40 - 150
2372142	Ibuprofen	75.3	88.3	P/P	40 - 150
2372142	Imazapyr	139	130	P/P	40 - 150
2372142	Imidacloprid	163	153	F/F	40 - 150
2372142	Linuron	74.8	80.4	P/P	40 - 150
2372142	Mandestrobin	86.8	83.1	P/P	40 - 150
2372142	MCP	127	120	P/P	40 - 150
2372142	Naproxen	113	131	P/P	40 - 150
2372142	Primidone	117	109	P/P	40 - 150
2372142	Pyraclostrobin	89.6	85.6	P/P	40 - 150
2372142	Silvex	141	117	P/P	40 - 150
2372142	Thiamethoxam	159	147	F/P	40 - 150
2372142	Tolfenpyrad	59.3	59.1	P/P	30 - 150
2372142	Triclopyr	124	115	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P423841

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2372397	Fluoride	101	99.9	P/P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P423117

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2372195	Organic Carbon	97.1	97.2	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P423051

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2372426	Color (true)	0.0345	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P423058

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2372326	Turbidity	12.1	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P423137

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2372408	Calcium	1.62	Spike	P	0 - 20
2372408	Iron	0.718	Spike	P	0 - 20
2372408	Magnesium	1.17	Spike	P	0 - 20
2372408	Potassium	0.725	Spike	P	0 - 20
2372408	Sodium	1.05	Spike	P	0 - 20
2372408	Strontium	1.10	Spike	P	0 - 20
2372408	Tin	1.41	Spike	P	0 - 20
2372408	Titanium	0.618	Spike	P	0 - 20
2372408	Vanadium	0.483	Spike	P	0 - 20
2372408	Zinc	0.240	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P423137

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2372408	Aluminum	1.41	Spike	P	0 - 20
2372408	Antimony	1.13	Spike	P	0 - 20
2372408	Arsenic	1.16	Spike	P	0 - 20
2372408	Barium	1.41	Spike	P	0 - 20
2372408	Beryllium	0.774	Spike	P	0 - 20
2372408	Boron	1.31	Spike	P	0 - 20
2372408	Cadmium	0.404	Spike	P	0 - 20
2372408	Chromium	1.67	Spike	P	0 - 20
2372408	Cobalt	1.48	Spike	P	0 - 20
2372408	Copper	1.80	Spike	P	0 - 20
2372408	Lead	1.87	Spike	P	0 - 20
2372408	Manganese	2.46	Spike	P	0 - 20
2372408	Molybdenum	1.57	Spike	P	0 - 20
2372408	Nickel	1.39	Spike	P	0 - 20
2372408	Selenium	0.209	Spike	P	0 - 20
2372408	Silver	2.61	Spike	P	0 - 20
2372408	Thallium	0.265	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P423344

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2372596	Chloride	0.655	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P423346

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2372596	Sulfate	1.15	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P423318

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2372318	Ammonia-N	2.34	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423103

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2372318	Kjeldahl Nitrogen	0.378	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P423144

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2372330	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P423147

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2372456	Total-P	1.48	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P423035

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2372142	Acesulfame K	8.99	Spike	P	0 - 30
2372142	AMPA	7.14	Spike	P	0 - 30
2372142	Endothall	2.23	Spike	P	0 - 30
2372142	Glufosinate	8.91	Spike	P	0 - 30
2372142	Glyphosate	9.75	Spike	P	0 - 30
2372142	Sucralose	9.55	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B

Batch ID: P423039

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2372142	2,4-D	3.88	Spike	P	0 - 30
2372142	2,4,5-T	8.60	Spike	P	0 - 30
2372142	Acetaminophen	3.87	Spike	P	0 - 30
2372142	Acetamiprid	6.89	Spike	P	0 - 30
2372142	Afidopyropen	7.83	Spike	P	0 - 30
2372142	Bentazon	5.66	Spike	P	0 - 30
2372142	Benzovindiflupyr	0.726	Spike	P	0 - 30
2372142	Carbamazepine	2.44	Spike	P	0 - 30
2372142	Clothianidin	5.48	Spike	P	0 - 30
2372142	Dinotefuran	4.69	Spike	P	0 - 30
2372142	Diuron	10.6	Spike	P	0 - 30
2372142	Fenuron	5.92	Spike	P	0 - 30
2372142	Fluridone	4.89	Spike	P	0 - 30
2372142	Hydrocodone	5.80	Spike	P	0 - 30
2372142	Ibuprofen	16.0	Spike	P	0 - 30
2372142	Imazapyr	6.27	Spike	P	0 - 30
2372142	Imidacloprid	6.31	Spike	P	0 - 30
2372142	Linuron	7.30	Spike	P	0 - 30
2372142	Mandestrobin	4.33	Spike	P	0 - 30
2372142	MCP	5.79	Spike	P	0 - 30
2372142	Naproxen	15.0	Spike	P	0 - 30
2372142	Primidone	6.76	Spike	P	0 - 30
2372142	Pyraclostrobin	4.55	Spike	P	0 - 30
2372142	Silvex	18.4	Spike	P	0 - 30
2372142	Thiamethoxam	7.54	Spike	P	0 - 30
2372142	Tolfenpyrad	0.359	Spike	P	0 - 30
2372142	Triclopyr	7.60	Spike	P	0 - 30

Reference Method: SM 2320 B-2011

Batch ID: P423430

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2372105	Total Alkalinity	0.0847	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2015

Batch ID: P423545

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2372398	TDS	3.05	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011

Batch ID: P423841

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2372397	Fluoride	0.968	Spike	P	0 - 1.6

Quality Assurance Report Precision

Reference Method: SM 5310 B-2011
Batch ID: P423117

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2372195	Organic Carbon	0.0867	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2372421

Field Sample ID: G3NW0231

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	124	P	30 - 160
EPA 8321B	Acetaminophen-d4	106	P	30 - 160
EPA 8321B	Carbamazepine-d10	82.1	P	30 - 160
EPA 8321B	Diuron-d6	60.2	P	30 - 160
EPA 8321B	Endothall-d6	59.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	90.9	P	30 - 160
EPA 8321B	Ibuprofen-d3	86.6	P	30 - 160
EPA 8321B	Primidone-d5	122	P	30 - 160
EPA 8321B	Sucralose-d6	122	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A116233

Included Lab Sample IDs: 2372415

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	104	103	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A116244

Included Lab Sample IDs: 2372415

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	98.0	98.5	P/P	95 - 105

Reference Method: EPA 8321B

Run ID: A116249

Included Lab Sample IDs: 2372421

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	103	96.7	P/P	60 - 160
Endothall	67.4	60.9	P/P	60 - 160
Glufosinate	79.0	66.0	P/P	60 - 160
Glyphosate	105	98.5	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A116250

Included Lab Sample IDs: 2372421

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	113	99.9	P/P	60 - 160
Sucralose	89.0	80.8	P/P	60 - 160

Reference Method: SM 5310 B-2011

Run ID: A116268

Included Lab Sample IDs: 2372416

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.0	98.1	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A116272

Included Lab Sample IDs: 2372415

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	102	100	P/P	90 - 110
Sulfate	102	101	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A116274

Included Lab Sample IDs: 2372421

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	102	107	P/P	50 - 150
2,4,5-T	111	109	P/P	50 - 150
Acetaminophen	105	104	P/P	60 - 160
Acetamiprid	111	109	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A116274
Included Lab Sample IDs: 2372421

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Afidopyropen	104	109	P/P	50 - 150
Bentazon	114	103	P/P	50 - 160
Benzovindiflupyr	106	111	P/P	50 - 150
Carbamazepine	113	120	P/P	60 - 150
Clothianidin	109	107	P/P	60 - 150
Dinotefuran	113	108	P/P	50 - 150
Diuron	112	115	P/P	60 - 160
Fenuron	105	108	P/P	60 - 150
Fluridone	103	104	P/P	60 - 160
Hydrocodone	110	111	P/P	60 - 150
Ibuprofen	94.2	77.5	P/P	50 - 160
Imazapyr	100	96.4	P/P	50 - 150
Imidacloprid	101	106	P/P	60 - 150
Linuron	108	117	P/P	60 - 150
Mandestrobin	109	105	P/P	50 - 150
MCPP	98.2	93.8	P/P	50 - 150
Naproxen	72.9	99.4	P/P	50 - 160
Primidone	102	126	P/P	60 - 150
Pyraclostrobin	110	110	P/P	60 - 150
Silvex	105	99.4	P/P	50 - 150
Thiamethoxam	112	110	P/P	50 - 150
Tolfenpyrad	102	102	P/P	60 - 150
Triclopyr	113	117	P/P	50 - 150

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A116276
Included Lab Sample IDs: 2372416

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	104	104	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A116289
Included Lab Sample IDs: 2372416

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	96.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A116305
Included Lab Sample IDs: 2372416

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.0	100	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A116336
Included Lab Sample IDs: 2372416

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.4	99.1	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-2011

Run ID: A116396

Included Lab Sample IDs: 2372415

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	91.7	97.1	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A116483

Included Lab Sample IDs: 2372422

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	102	99.9	P/P	90 - 110
Iron	105	102	P/P	90 - 110
Magnesium	104	101	P/P	90 - 110
Potassium	102	101	P/P	90 - 110
Sodium	99.6	99.2	P/P	90 - 110
Strontium	102	101	P/P	90 - 110
Tin	104	103	P/P	90 - 110
Titanium	104	102	P/P	90 - 110
Vanadium	101	98.9	P/P	90 - 110
Zinc	95.0	93.3	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A116494

Included Lab Sample IDs: 2372422

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	101	101	P/P	90 - 110
Antimony	95.9	97.1	P/P	90 - 110
Arsenic	103	103	P/P	90 - 110
Barium	98.3	98.3	P/P	90 - 110
Beryllium	97.7	98.3	P/P	90 - 110
Boron	103	102	P/P	90 - 110
Cadmium	101	102	P/P	90 - 110
Chromium	96.9	96.1	P/P	90 - 110
Cobalt	96.4	95.6	P/P	90 - 110
Copper	101	100	P/P	90 - 110
Lead	94.8	94.6	P/P	90 - 110
Manganese	96.7	95.8	P/P	90 - 110
Molybdenum	99.4	98.6	P/P	90 - 110
Nickel	101	100	P/P	90 - 110
Selenium	102	102	P/P	90 - 110
Silver	98.7	98.7	P/P	90 - 110
Thallium	96.8	95.6	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A116602

Included Lab Sample IDs: 2372415

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	102	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			LCS	Precision SMP	MS
DEP SOP: NU-094-1	Color (true)	104					0.0345	
EPA 180.1 Rev. 2.0	Turbidity	99.0					12.1	
EPA 200.7 Rev. 4.4	Calcium	103	103	97.3				1.62
	Iron	104	102	101	102			0.718
	Magnesium	101	102	98.8				1.17
	Potassium	96.1	98.3	97.5	98.6			0.725
	Sodium	98.1	97.0	95.3	96.9			1.05
	Strontium	99.9	101	100	101			1.10
	Tin	101	101	99.3	102			1.41
	Titanium	103	105	104	106			0.618
	Vanadium	101	101	101	102			0.483
	Zinc	101	95.0	95.2	97.7			0.240
EPA 200.8 Rev. 5.4	Aluminum	102	100	99.1	101			1.41
	Antimony	98.2	101	99.7	100			1.13
	Arsenic	104	106	105	103			1.16
	Barium	102	103	102	100			1.41
	Beryllium	96.5	95.9	95.1	96.2			0.774
	Boron	102	104	102	105			1.31
	Cadmium	103	105	105	104			0.404
	Chromium	98.0	100	98.3	99.1			1.67
	Cobalt	99.3	98.8	97.4	97.6			1.48
	Copper	103	101	99.5	101			1.80
	Lead	92.7	94.2	92.5	93.6			1.87
	Manganese	97.5	99.6	97.2	96.8			2.46
	Molybdenum	99.8	104	102	101			1.57
	Nickel	104	104	102	102			1.39
	Selenium	102	103	102	101			0.209
	Silver	102	103	100	100			2.61
	Thallium	92.8	95.9	96.1	93.8			0.265
EPA 300.0 Rev. 2.1	Chloride	103	94.6	100			0.655	
	Sulfate	103	96.5	101			1.15	
EPA 350.1 Rev. 2.0	Ammonia-N	94.4	97.6	100				2.34
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	107	95.2	95.8				0.378
EPA 353.2 Rev. 2.0	NO2NO3-N	104	102	102				0.0
EPA 365.1 Rev. 2.0	Total-P	100	100	102				1.48
EPA 8321B	2,4-D	96.5	116	110				3.88
	2,4,5-T	106	123	113				8.60
	Acesulfame K	109	56.5	61.8				8.99
	Acetaminophen	88.2	111	106				3.87
	Acetamiprid	89.0	84.7	79.0				6.89
	Afidopyropen	62.4	71.8	66.4				7.83
	AMPA	83.9	86.6	80.6				7.14
	Bentazon	96.0						5.66
	Benzovindiflupyr	86.1	85.7	85.1				0.726
	Carbamazepine	90.5	90.3	88.2				2.44
	Clothianidin	96.2	127	121				5.48
	Dinotefuran	94.9	138	132				4.69
	Diuron	79.8	70.6	63.5				10.6
	Endothall	78.1	64.6	66.0				2.23
	Fenuron	97.0	94.5	89.0				5.92
	Fluridone	91.3	89.0	84.3				4.89
	Glufosinate	70.2	71.5	78.1				8.91
	Glyphosate	103	101	91.3				9.75
	Hydrocodone	94.3	123	116				5.80

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8321B	Ibuprofen	91.6	75.3	88.3		16.0
	Imazapyr	86.8	139	130		6.27
	Imidacloprid	118	163	153		6.31
	Linuron	79.3	74.8	80.4		7.30
	Mandestrobin	87.0	86.8	83.1		4.33
	MCPP	103	127	120		5.79
	Naproxen	113	113	131		15.0
	Primidone	98.5	117	109		6.76
	Pyraclostrobin	85.1	89.6	85.6		4.55
	Silvex	104	141	117		18.4
	Sucralose	92.8	101	91.4		9.55
	Thiamethoxam	92.7	159	147		7.54
	Tolfenpyrad	62.4	59.3	59.1		0.359
	Triclopyr	119	124	115		7.60
SM 2320 B-2011	Total Alkalinity	96.6			0.0847	
SM 2540 C-2015	TDS	95.4			3.05	
SM 2540 D-2015	TSS	92.3				
SM 4500-F- C-2011	Fluoride	98.2	101	99.9		0.968
SM 5310 B-2011	Organic Carbon	97.0	97.1	97.2		0.0867

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2372415
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2372415
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2372422
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2372422
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2372415
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2372415
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2372416
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2372416
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2372416
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2372416
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2372421
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2372415
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2372422
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2372415
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2372415
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2372415
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2372416

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	12/02/2022			12/02/2022 11:31	Chandler E Cox	2372415
EPA 180.1 Rev. 2.0	12/02/2022			12/02/2022 10:47	Khloe J Berg	2372415
EPA 200.7 Rev. 4.4	12/02/2022	12/06/2022 11:30	Vijayalakshmi Reddy	12/15/2022 18:14	McKinley C Carter	2372422
EPA 200.8 Rev. 5.4	12/02/2022	12/06/2022 11:30	Vijayalakshmi Reddy	12/16/2022 04:27	Emily M Philpot	2372422
EPA 300.0 Rev. 2.1	12/02/2022			12/09/2022 01:04	Anna M. Plaviak	2372415
EPA 350.1 Rev. 2.0	12/02/2022			12/08/2022 15:31	Ping Hua	2372416
EPA 351.2 Rev. 2.0	12/02/2022	12/05/2022 13:33	Judith K. Clark	12/06/2022 15:35	Samantha L Bates	2372416
EPA 353.2 Rev. 2.0	12/02/2022			12/06/2022 11:38	Beverly Y. Sanders	2372416
EPA 365.1 Rev. 2.0	12/02/2022	12/06/2022 14:05	Adam P Silver	12/07/2022 13:05	Simonne.V. Calhoun	2372416
EPA 8321B	12/02/2022	12/02/2022 12:40	Manjita Shrestha	12/02/2022 17:19	Manjita Shrestha	2372421
	12/02/2022	12/02/2022 12:40	Manjita Shrestha	12/03/2022 01:26	Manjita Shrestha	2372421
	12/02/2022	12/05/2022 10:00	Hoor Shaik	12/05/2022 22:39	Juyoung Kim	2372421
SM 2320 B-2011	12/02/2022			12/13/2022 02:58	Dale L. Simmons	2372415
SM 2340 B-2011	12/02/2022			12/15/2022 18:14	McKinley C Carter	2372422
SM 2540 C-2015	12/02/2022			12/05/2022 16:21	Yijie Li	2372415
SM 2540 D-2015	12/02/2022			12/05/2022 16:21	Yijie Li	2372415
SM 4500-F- C-2011	12/02/2022			12/21/2022 14:01	Dale L. Simmons	2372415
SM 5310 B-2011	12/02/2022			12/06/2022 02:31	Khloe J Berg	2372416