

Chemical Analysis Report

SE-DIST-2024-02-14-01

Florida DEP Laboratory
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DOH Accreditation E31780

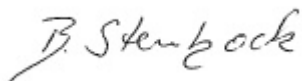
Event Description: **SMP - Fort Drum**
Request ID: **RQ-2024-01-08-32**
Customer: **SE-DIST**
Project ID: **SMP**

Send Reports to:
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Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator

Date Certified: 11-MAR-2024 16:01



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: GOMEZ CREEK NORTH AT 441

Collection Date/Time: 02/13/2024 09:30

Field ID: G3SE0046

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2468913	DEP SOP: NU-094-1	Color (true)	120		PCU	P441437	
	EPA 180.1 Rev. 2.0	Turbidity	7.8		NTU	P441440	
	EPA 300.0 Rev. 2.1	Chloride	23		mg Cl/L	P441883	
		Sulfate	8.0		mg SO4/L	P441886	
	SM 2320 B-2011	Total Alkalinity	22		mg CaCO3/L	P441937	
	SM 2540 C-2015	TDS	108		mg/L	P441928	
	SM 2540 D-2015	TSS	2	I	mg/L	P441900	
	SM 4500-F- C-2011	Fluoride	0.16		mg F/L	P441940	
2468914	EPA 350.1 Rev. 2.0	Ammonia-N	0.034		mg N/L	P441578	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.5		mg N/L	P441558	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.009	I	mg N/L	P442234	
	EPA 365.1 Rev. 2.0	Total-P	0.65		mg P/L	P441658	
	SM 5310 B-2014	Organic Carbon	22		mg C/L	P441609	

Ref. Method and Comment:
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: SEVENMILE SLOUGH AT PEAVINE TRAIL

Collection Date/Time: 02/13/2024 10:25

Field ID: G4SE0153

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2468921	DEP SOP: NU-094-1	Color (true)	270		PCU	P441437	
	EPA 180.1 Rev. 2.0	Turbidity	1.8		NTU	P441440	
	EPA 300.0 Rev. 2.1	Chloride	22		mg Cl/L	P442055	
		Sulfate	0.25	I	mg SO4/L	P442059	
	SM 2320 B-2011	Total Alkalinity	6.7		mg CaCO3/L	P441937	
	SM 2540 C-2015	TDS	90		mg/L	P441928	
	SM 2540 D-2015	TSS	3	I	mg/L	P441900	
	SM 4500-F- C-2011	Fluoride	0.054	I	mg F/L	P441940	
2468922	EPA 350.1 Rev. 2.0	Ammonia-N	0.021		mg N/L	P441579	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.8		mg N/L	P441558	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.029		mg N/L	P441519	
	EPA 365.1 Rev. 2.0	Total-P	0.025		mg P/L	P441658	
	SM 5310 B-2014	Organic Carbon	30		mg C/L	P441609	

Ref. Method and Comment:

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

EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: STARVATION SLOUGH AT PUBLIC USE TRAIL Collection Date/Time: 02/13/2024 11:20

Field ID: G4SE0144

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2468919	DEP SOP: NU-094-1	Color (true)	170		PCU	P441437	
	EPA 180.1 Rev. 2.0	Turbidity	8.4		NTU	P441440	
	EPA 300.0 Rev. 2.1	Chloride	21		mg Cl/L	P442055	
		Sulfate	3.4		mg SO4/L	P442059	
	SM 2320 B-2011	Total Alkalinity	30		mg CaCO3/L	P441937	
	SM 2540 C-2015	TDS	102		mg/L	P441928	
	SM 2540 D-2015	TSS	10	I	mg/L	P441900	
	SM 4500-F- C-2011	Fluoride	0.055	I	mg F/L	P441940	
2468920	EPA 350.1 Rev. 2.0	Ammonia-N	0.57		mg N/L	P441579	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.5		mg N/L	P441558	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.080		mg N/L	P441519	
	EPA 365.1 Rev. 2.0	Total-P	0.17		mg P/L	P441658	
	SM 5310 B-2014	Organic Carbon	24		mg C/L	P441609	

Ref. Method and Comment:

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

EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: OAK CREEK AT 68

Collection Date/Time: 02/13/2024 11:40

Field ID: G4SE0080

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2468915	DEP SOP: NU-094-1	Color (true)	110		PCU	P441437	
	EPA 180.1 Rev. 2.0	Turbidity	7.0		NTU	P441440	
	EPA 300.0 Rev. 2.1	Chloride	34		mg Cl/L	P441883	
		Sulfate	11		mg SO4/L	P441886	
	SM 2320 B-2011	Total Alkalinity	33		mg CaCO3/L	P441937	
	SM 2540 C-2015	TDS	139		mg/L	P441928	
	SM 2540 D-2015	TSS	8	I	mg/L	P441900	
2468916	SM 4500-F- C-2011	Fluoride	0.11		mg F/L	P441940	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.16		mg N/L	P441579	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.7		mg N/L	P441558	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.13		mg N/L	P441519	
	EPA 365.1 Rev. 2.0	Total-P	0.20		mg P/L	P441658	
2468940	SM 5310 B-2014	Organic Carbon	20		mg C/L	P441609	
	EPA 200.7 Rev. 4.4	Calcium	16.5		mg/L	P441548	
		Iron	1.15E+03		ug/L	P441548	
		Magnesium	3.23		mg/L	P441548	
		Potassium	2.6		mg/L	P441548	
		Sodium	15.4		mg/L	P441548	
		Strontium	178		ug/L	P441548	
		Tin	3.0	U	ug/L	P441548	
		Titanium	1.3	I	ug/L	P441548	MS
		Vanadium	2.0	U	ug/L	P441548	
		Zinc	5.0	U	ug/L	P441548	
	EPA 200.8 Rev. 5.4	Aluminum	188		ug/L	P441548	
		Antimony	0.050	U	ug/L	P441548	
		Arsenic	0.85		ug/L	P441548	
		Barium	20.7		ug/L	P441548	
		Beryllium	0.027	I	ug/L	P441548	
		Boron	27.5		ug/L	P441548	
		Cadmium	0.020	U	ug/L	P441548	
		Chromium	1.1	I	ug/L	P441856	
		Cobalt	0.207		ug/L	P441548	
		Copper	0.61	I	ug/L	P441548	
		Lead	0.25	I	ug/L	P441548	
		Manganese	25.8		ug/L	P441548	
		Molybdenum	0.19	I	ug/L	P441548	
		Nickel	0.50	U	ug/L	P441856	
		Selenium	0.20	U	ug/L	P441548	
		Silver	0.010	U	ug/L	P441548	
		Thallium	0.10	U	ug/L	P441548	
	SM 2340 B-2011	Hardness	54.6		mg/L	P441548	

Ref. Method and Comment:
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: FB

Collection Date/Time: 02/13/2024 11:50

Field ID: FB_02132024

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2468923	DEP SOP: NU-094-1	Color (true)	2.5	U	PCU	P441437	
	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P441440	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P442055	
		Sulfate	0.20	U	mg SO4/L	P442059	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P441937	
	SM 2540 C-2015	TDS	15	U	mg/L	P441928	
	SM 2540 D-2015	TSS	2	U	mg/L	P441900	
	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P441940	
2468924	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P441579	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P441558	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P441519	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P441658	
	SM 5310 B-2014	Organic Carbon	0.50	U	mg C/L	P441609	
2468941	EPA 200.7 Rev. 4.4	Calcium	0.075	U	mg/L	P441548	
		Iron	30	U	ug/L	P441548	
		Magnesium	0.040	U	mg/L	P441548	
		Potassium	0.30	U	mg/L	P441548	
		Sodium	0.50	U	mg/L	P441548	
		Strontium	2.0	U	ug/L	P441548	
		Tin	3.0	U	ug/L	P441548	
		Titanium	0.75	U	ug/L	P441548	MS
	EPA 200.8 Rev. 5.4	Vanadium	2.0	U	ug/L	P441548	
		Zinc	5.0	U	ug/L	P441548	
		Aluminum	5.0	U	ug/L	P441548	
		Antimony	0.050	U	ug/L	P441548	
		Arsenic	0.050	U	ug/L	P441548	
		Barium	0.20	U	ug/L	P441548	
		Beryllium	0.010	U	ug/L	P441548	
		Boron	2.0	U	ug/L	P441548	
		Cadmium	0.020	U	ug/L	P441548	
		Chromium	0.40	U	ug/L	P441856	
		Cobalt	0.020	U	ug/L	P441548	
		Copper	0.40	U	ug/L	P441548	
		Lead	0.20	U	ug/L	P441548	
		Manganese	0.10	U	ug/L	P441548	
		Molybdenum	0.15	U	ug/L	P441548	
		Nickel	0.50	U	ug/L	P441856	
		Selenium	0.20	U	ug/L	P441548	
		Silver	0.010	U	ug/L	P441548	
		Thallium	0.10	U	ug/L	P441548	
	SM 2340 B-2011	Hardness	0.35	U	mg/L	P441548	

Ref. Method and Comment:

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

EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: CHANDLER SLOUGH AT NORTHERN US98
CULVERT

Collection Date/Time: 02/13/2024 12:20

Field ID: G4SE0141

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2468917	DEP SOP: NU-094-1	Color (true)	100		PCU	P441437	
	EPA 180.1 Rev. 2.0	Turbidity	1.8		NTU	P441440	
	EPA 300.0 Rev. 2.1	Chloride	54		mg Cl/L	P441882	
		Sulfate	11		mg SO4/L	P441885	
	SM 2320 B-2011	Total Alkalinity	110		mg CaCO3/L	P441937	
	SM 2540 C-2015	TDS	236		mg/L	P441928	
	SM 2540 D-2015	TSS	2	I	mg/L	P441900	
	SM 4500-F- C-2011	Fluoride	0.15		mg F/L	P441940	
2468918	EPA 350.1 Rev. 2.0	Ammonia-N	0.040		mg N/L	P441579	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P441558	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.022		mg N/L	P441519	
	EPA 365.1 Rev. 2.0	Total-P	0.069		mg P/L	P441658	
	SM 5310 B-2014	Organic Carbon	25		mg C/L	P441609	

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: OTTER CREEK AT 441

Collection Date/Time: 02/13/2024 12:55

Field ID: G1SE0007

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2468911	DEP SOP: NU-094-1	Color (true)	180		PCU	P441437	
	EPA 180.1 Rev. 2.0	Turbidity	3.3		NTU	P441440	
	EPA 300.0 Rev. 2.1	Chloride	170		mg Cl/L	P441883	
		Sulfate	24		mg SO4/L	P441886	
	SM 2320 B-2011	Total Alkalinity	233		mg CaCO3/L	P441937	
	SM 2540 C-2015	TDS	548		mg/L	P441928	
	SM 2540 D-2015	TSS	18		mg/L	P441900	
	SM 4500-F- C-2011	Fluoride	0.13		mg F/L	P441940	
2468912	EPA 350.1 Rev. 2.0	Ammonia-N	6.6		mg N/L	P441578	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	9.7		mg N/L	P442247	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.6		mg N/L	P441519	
	EPA 365.1 Rev. 2.0	Total-P	1.4		mg P/L	P441658	
	SM 5310 B-2014	Organic Carbon	43		mg C/L	P441608	

Ref. Method and Comment:
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Cowbone Creek near Quail Creek

Collection Date/Time: 02/13/2024 09:15

Field ID: G5SE0148

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2468909	DEP SOP: NU-094-1	Color (true)	240		PCU	P441437	
	EPA 180.1 Rev. 2.0	Turbidity	2.7		NTU	P441440	
	EPA 300.0 Rev. 2.1	Chloride	86		mg Cl/L	P441883	
		Sulfate	16		mg SO4/L	P441886	
	SM 2320 B-2011	Total Alkalinity	75		mg CaCO3/L	P441937	
	SM 2540 C-2015	TDS	290		mg/L	P441928	
	SM 2540 D-2015	TSS	2	I	mg/L	P441900	
2468910	SM 4500-F- C-2011	Fluoride	0.090	I	mg F/L	P441940	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.021		mg N/L	P441578	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.8		mg N/L	P441558	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.013		mg N/L	P441519	
	EPA 365.1 Rev. 2.0	Total-P	0.41		mg P/L	P441658	
2468939	SM 5310 B-2014	Organic Carbon	39		mg C/L	P441608	
	EPA 8321B	2,4-D	0.0020	U	ug/L	P441446	
		Acesulfame K	0.10	U	ug/L	P441276	
		2,4,5-T	0.0040	U	ug/L	P441446	
		AMPA	0.13	I	ug/L	P441276	
		Acetaminophen	0.0080	U	ug/L	P441446	
		Acetamiprid	0.0020	U	ug/L	P441446	
		Endothall	0.25	U	ug/L	P441276	
		Glufosinate	0.10	U	ug/L	P441276	
		Glyphosate	0.10	U	ug/L	P441276	
		Afidopyropen	0.0020	U	ug/L	P441446	
		Bentazon	8.0E-04	U	ug/L	P441446	
		Sucralose	0.25		ug/L	P441276	
		Benzovindiflupyr	0.0020	U	ug/L	P441446	
		Carbamazepine	8.0E-04	U	ug/L	P441446	
		Clothianidin	0.0020	U	ug/L	P441446	
		Dinotefuran	0.0020	U	ug/L	P441446	
		Diuron	0.0020	U	ug/L	P441446	
		Fenuron	0.032	U	ug/L	P441446	
		Fluridone	8.0E-04	U	ug/L	P441446	
		Imazapyr	0.035		ug/L	P441446	
		Hydrocodone	0.0020	U	ug/L	P441446	
		Ibuprofen	0.080	U	ug/L	P441446	
		Imidacloprid	0.0020	U	ug/L	P441446	
		Linuron	0.0040	U	ug/L	P441446	
		Mandestrobin	0.0020	U	ug/L	P441446	
		MCPP	0.0020	U	ug/L	P441446	
		Naproxen	0.0080	U	ug/L	P441446	
		Primidone	0.0040	U	ug/L	P441446	
		Pyraclostrobin	0.0020	U	ug/L	P441446	
		Silvex	0.0040	U	ug/L	P441446	
		Thiamethoxam	0.0020	U	ug/L	P441446	

Field ID: G5SE0148

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2468939	EPA 8321B	Tolfenpyrad	0.0020	U	ug/L	P441446	
		Triclopyr	0.0040	U	ug/L	P441446	

Ref. Method and Comment:
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Quality Assurance Report
Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P441437

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P441440

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P441548

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: P441548

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
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
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P441856

Component	Result	Code	Units
Chromium	0.40	U	ug/L
Nickel	0.50	U	ug/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P441882

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P441883

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P441885

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P441886

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P442055

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P442059

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P441578

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P441579

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P441558

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P442247

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P441519

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P442234

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P441658

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

Reference Method: EPA 8321B
Batch ID: P441276

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: P441446

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.032	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.080	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8321B
Batch ID: P441446

Component	Result	Code	Units
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: P441937

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

Reference Method: SM 2540 C-2015
Batch ID: P441928

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P441900

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P441940

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2014
Batch ID: P441608

Component	Result	Code	Units
Organic Carbon	0.50	U	mg C/L

Reference Method: SM 5310 B-2014
Batch ID: P441609

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: P441437

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

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P441440

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P441548

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	98.8		P	80 - 120
Iron	104		P	80 - 120
Magnesium	104		P	80 - 120
Potassium	102		P	80 - 120
Sodium	105		P	85 - 115
Strontium	101		P	85 - 115
Tin	99.2		P	80 - 120
Titanium	102		P	80 - 120
Vanadium	99.9		P	80 - 120
Zinc	97.7		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P441548

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	99.3		P	85 - 115
Antimony	99.1		P	85 - 115
Arsenic	101		P	85 - 115
Barium	99.9		P	85 - 115
Beryllium	95.9		P	85 - 115
Boron	102		P	85 - 115
Cadmium	99.4		P	85 - 115
Cobalt	99.5		P	85 - 115
Copper	100		P	85 - 115
Lead	95.2		P	85 - 115
Manganese	99.0		P	85 - 115
Molybdenum	99.0		P	85 - 115
Selenium	98.2		P	85 - 115
Silver	111		P	85 - 115
Thallium	99.8		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P441856

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chromium	105		P	85 - 115
Nickel	99.4		P	85 - 115

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P441882

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P441883

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P441885

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P441886

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P442055

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P442059

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P441578

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	97.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P441579

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P441558

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P442247

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P441519

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P442234

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	101		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P441658

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

Reference Method: EPA 8321B
Batch ID: P441276

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	98.3		P	40 - 150
AMPA	94.6		P	40 - 160
Endothall	92.0		P	40 - 160
Glufosinate	74.7		P	40 - 160
Glyphosate	79.1		P	40 - 160
Sucralose	100		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P441446

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	106		P	40 - 150
2,4,5-T	128		P	40 - 150
Acetaminophen	88.0		P	30 - 150
Acetamiprid	75.8		P	40 - 150
Afidopyropen	55.6		P	30 - 150
Bentazon	95.7		P	30 - 150
Benzovindiflupyr	83.9		P	40 - 150
Carbamazepine	87.9		P	40 - 150
Clothianidin	88.6		P	40 - 150
Dinotefuran	99.0		P	40 - 150
Diuron	82.3		P	40 - 150
Fenuron	97.5		P	40 - 150
Fluridone	96.5		P	40 - 150
Hydrocodone	89.3		P	40 - 150
Ibuprofen	99.5		P	40 - 150
Imazapyr	101		P	40 - 150
Imidacloprid	86.6		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P441446

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Linuron	77.5		P	40 - 150
Mandestrobin	88.7		P	40 - 150
MCPP	101		P	40 - 150
Naproxen	77.7		P	40 - 150
Primidone	79.8		P	40 - 150
Pyraclostrobin	78.9		P	40 - 150
Silvex	93.1		P	40 - 150
Thiamethoxam	86.2		P	40 - 150
Tolfenpyrad	49.8		P	30 - 150
Triclopyr	124		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P441937

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.2		P	92 - 105

Reference Method: SM 2540 C-2015
Batch ID: P441928

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

Reference Method: SM 2540 D-2015
Batch ID: P441900

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

Reference Method: SM 4500-F- C-2011
Batch ID: P441940

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	100		P	94 - 106

Reference Method: SM 5310 B-2014
Batch ID: P441608

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.9		P	85 - 115

Reference Method: SM 5310 B-2014
Batch ID: P441609

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.7		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P441548

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2468709	Calcium	96.6		P	80 - 120
2468709	Iron	105	101	P/P	80 - 120
2468709	Magnesium	104	100	P/P	80 - 120
2468709	Potassium	98.2	96.0	P/P	80 - 120
2468709	Sodium	91.4	93.3	P/P	80 - 120
2468709	Strontium	102	102	P/P	80 - 120
2468709	Tin	94.6	93.9	P/P	80 - 120
2468709	Titanium	79.5	77.8	F/F	80 - 120
2468709	Vanadium	99.9	99.3	P/P	80 - 120
2468709	Zinc	95.3	94.4	P/P	80 - 120
2468940	Calcium	98.1		P	80 - 120
2468940	Iron	98.0		P	80 - 120
2468940	Magnesium	93.5		P	80 - 120
2468940	Potassium	94.3		P	80 - 120
2468940	Sodium	86.1		P	80 - 120
2468940	Strontium	100		P	80 - 120
2468940	Tin	93.7		P	80 - 120
2468940	Titanium	98.9		P	80 - 120
2468940	Vanadium	99.2		P	80 - 120
2468940	Zinc	95.5		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P441548

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2468709	Aluminum	86.6	96.3	P/P	80 - 120
2468709	Antimony	98.5	98.0	P/P	80 - 120
2468709	Arsenic	102	102	P/P	80 - 120
2468709	Barium	101	101	P/P	80 - 120
2468709	Beryllium	98.0	94.7	P/P	80 - 120
2468709	Boron	105	105	P/P	80 - 120
2468709	Cadmium	102	99.5	P/P	80 - 120
2468709	Cobalt	102	101	P/P	80 - 120
2468709	Copper	102	101	P/P	80 - 120
2468709	Lead	95.9	95.7	P/P	80 - 120
2468709	Manganese	102	99.8	P/P	80 - 120
2468709	Molybdenum	104	99.9	P/P	80 - 120
2468709	Selenium	98.7	98.4	P/P	80 - 120
2468709	Silver	111	112	P/P	80 - 120
2468709	Thallium	104	103	P/P	80 - 120
2468940	Aluminum	98.4		P	80 - 120
2468940	Antimony	100		P	80 - 120
2468940	Arsenic	104		P	80 - 120
2468940	Barium	101		P	80 - 120
2468940	Beryllium	98.2		P	80 - 120
2468940	Boron	104		P	80 - 120
2468940	Cadmium	100		P	80 - 120
2468940	Cobalt	101		P	80 - 120
2468940	Copper	101		P	80 - 120
2468940	Lead	97.7		P	80 - 120
2468940	Manganese	100		P	80 - 120
2468940	Molybdenum	103		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P441548

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2468940	Selenium	100		P	80 - 120
2468940	Silver	111		P	80 - 120
2468940	Thallium	106		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P441856

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2468453	Chromium	96.8	98.7	P/P	80 - 120
2468453	Nickel	95.3	97.6	P/P	80 - 120
2469066	Chromium	101		P	80 - 120
2469066	Nickel	97.5		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P441882

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2467670	Chloride	96.0		P	90 - 110
2467672	Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P441883

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2468712	Chloride	104		P	90 - 110
2468913	Chloride	100		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P441885

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2467672	Sulfate	99.5		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P441886

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2468712	Sulfate	98.1		P	90 - 110
2468913	Sulfate	97.1		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P442055

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2469021	Chloride	99.1		P	90 - 110
2469158	Chloride	100		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P442059

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2469021	Sulfate	99.0		P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P442059

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2469158	Sulfate	98.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P441578

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2468870	Ammonia-N	95.4	95.6	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P441579

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2468982	Ammonia-N	96.2	96.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P441558

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2468950	Kjeldahl Nitrogen	99.2	105	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P442247

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2471932	Kjeldahl Nitrogen	102	98.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P441519

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2468910	NO2NO3-N	95.7	97.7	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P442234

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2468914	NO2NO3-N	97.0	98.5	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P441276

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2467984	Acesulfame K	116	117	P/P	40 - 150
2467984	AMPA	80.4	83.8	P/P	40 - 160
2467984	Endothall	99.2	97.5	P/P	40 - 160
2467984	Glufosinate	80.6	85.4	P/P	40 - 160
2467984	Glyphosate	68.5	74.9	P/P	40 - 160
2467984	Sucralose	104	108	P/P	40 - 150

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P441446

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2469056	2,4-D	111	95.4	P/P	40 - 150
2469056	2,4,5-T	122	103	P/P	40 - 150
2469056	Acetaminophen	104	97.5	P/P	30 - 150
2469056	Acetamiprid	82.0	80.1	P/P	40 - 150
2469056	Afidopyropen	57.8	75.2	P/P	30 - 150
2469056	Bentazon	94.8	90.7	P/P	30 - 150
2469056	Benzovindiflupyr	85.2	78.3	P/P	40 - 150
2469056	Carbamazepine	79.9	72.7	P/P	40 - 150
2469056	Clothianidin	97.1	85.9	P/P	40 - 150
2469056	Dinotefuran	107	98.7	P/P	40 - 150
2469056	Diuron	78.7	73.1	P/P	40 - 150
2469056	Fenuron	95.6	91.4	P/P	40 - 150
2469056	Fluridone	85.6	81.9	P/P	40 - 150
2469056	Hydrocodone	85.0	78.5	P/P	40 - 150
2469056	Ibuprofen	53.1	59.6	P/P	40 - 150
2469056	Imazapyr	98.1	96.8	P/P	40 - 150
2469056	Imidacloprid	109	98.9	P/P	40 - 150
2469056	Linuron	83.4	73.3	P/P	40 - 150
2469056	Mandestrobin	91.2	84.6	P/P	40 - 150
2469056	MCCP	103	95.6	P/P	40 - 150
2469056	Naproxen	94.7	78.8	P/P	40 - 150
2469056	Primidone	89.8	78.0	P/P	40 - 150
2469056	Pyraclostrobin	79.8	72.8	P/P	40 - 150
2469056	Silvex	94.8	90.4	P/P	40 - 150
2469056	Thiamethoxam	88.5	81.5	P/P	40 - 150
2469056	Tolfenpyrad	59.2	48.5	P/P	30 - 150
2469056	Triclopyr	109	112	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P441940

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2468869	Fluoride	101	101	P/P	94 - 106

Reference Method: SM 5310 B-2014
Batch ID: P441608

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2468768	Organic Carbon	98.4	99.7	P/P	85 - 115

Reference Method: SM 5310 B-2014
Batch ID: P441609

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2468914	Organic Carbon	99.5	102	P/P	85 - 115

Quality Assurance Report

Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P441437

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2468864	Color (true)	4.42	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P441440

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2468863	Turbidity	15.2	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P441548

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2468709	Calcium	0.756	Spike	P	0 - 20
2468709	Iron	3.18	Spike	P	0 - 20
2468709	Magnesium	2.98	Spike	P	0 - 20
2468709	Potassium	1.67	Spike	P	0 - 20
2468709	Sodium	1.35	Spike	P	0 - 20
2468709	Strontium	0.232	Spike	P	0 - 20
2468709	Tin	0.806	Spike	P	0 - 20
2468709	Titanium	1.57	Spike	P	0 - 20
2468709	Vanadium	0.545	Spike	P	0 - 20
2468709	Zinc	1.01	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P441548

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2468709	Aluminum	6.41	Spike	P	0 - 20
2468709	Antimony	0.438	Spike	P	0 - 20
2468709	Arsenic	0.657	Spike	P	0 - 20
2468709	Barium	0.419	Spike	P	0 - 20
2468709	Beryllium	3.30	Spike	P	0 - 20
2468709	Boron	0.137	Spike	P	0 - 20
2468709	Cadmium	2.36	Spike	P	0 - 20
2468709	Cobalt	1.29	Spike	P	0 - 20
2468709	Copper	1.11	Spike	P	0 - 20
2468709	Lead	0.278	Spike	P	0 - 20
2468709	Manganese	1.92	Spike	P	0 - 20
2468709	Molybdenum	4.39	Spike	P	0 - 20
2468709	Selenium	0.269	Spike	P	0 - 20
2468709	Silver	0.439	Spike	P	0 - 20
2468709	Thallium	0.899	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P441856

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
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Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P441856

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2468453	Chromium	1.89	Spike	P	0 - 20
2468453	Nickel	2.34	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P441882

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2467670	Chloride	1.71	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P441883

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2468712	Chloride	0.478	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P441885

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2467670	Sulfate	1.95	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P441886

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2468712	Sulfate	2.14	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P442055

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2469021	Chloride	1.29	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P442059

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2469021	Sulfate	1.63	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P441578

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2468870	Ammonia-N	0.156	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P441579

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2468982	Ammonia-N	0.234	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P441558

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2468950	Kjeldahl Nitrogen	3.01	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P442247

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2471932	Kjeldahl Nitrogen	3.17	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P441519

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2468910	NO2NO3-N	1.94	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P442234

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2468914	NO2NO3-N	1.47	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P441658

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2468912	Total-P	1.06	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P441276

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2467984	Acesulfame K	0.728	Spike	P	0 - 30
2467984	AMPA	3.13	Spike	P	0 - 30
2467984	Endothall	1.67	Spike	P	0 - 30
2467984	Glufosinate	5.67	Spike	P	0 - 30
2467984	Glyphosate	6.12	Spike	P	0 - 30
2467984	Sucralose	3.16	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P441446

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2469056	2,4-D	14.9	Spike	P	0 - 30
2469056	2,4,5-T	17.4	Spike	P	0 - 30
2469056	Acetaminophen	6.78	Spike	P	0 - 30
2469056	Acetamiprid	2.31	Spike	P	0 - 30
2469056	Afidopyropen	26.1	Spike	P	0 - 30
2469056	Bentazon	4.39	Spike	P	0 - 30
2469056	Benzovindiflupyr	8.40	Spike	P	0 - 30
2469056	Carbamazepine	9.44	Spike	P	0 - 30
2469056	Clothianidin	12.2	Spike	P	0 - 30
2469056	Dinotefuran	7.96	Spike	P	0 - 30
2469056	Diuron	6.66	Spike	P	0 - 30
2469056	Fenuron	4.49	Spike	P	0 - 30
2469056	Fluridone	4.50	Spike	P	0 - 30
2469056	Hydrocodone	7.95	Spike	P	0 - 30
2469056	Ibuprofen	11.6	Spike	P	0 - 30
2469056	Imazapyr	1.36	Spike	P	0 - 30
2469056	Imidacloprid	10.2	Spike	P	0 - 30
2469056	Linuron	12.9	Spike	P	0 - 30
2469056	Mandestrobin	7.54	Spike	P	0 - 30
2469056	MCPP	7.06	Spike	P	0 - 30
2469056	Naproxen	18.4	Spike	P	0 - 30
2469056	Primidone	14.0	Spike	P	0 - 30
2469056	Pyraclostrobin	9.09	Spike	P	0 - 30
2469056	Silvex	4.78	Spike	P	0 - 30
2469056	Thiamethoxam	8.20	Spike	P	0 - 30
2469056	Tolfenpyrad	19.8	Spike	P	0 - 30
2469056	Triclopyr	2.69	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P441937

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2468869	Total Alkalinity	0.199	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P441928

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2468742	TDS	5.05	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P441940

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2468869	Fluoride	0.477	Spike	P	0 - 1.9

Quality Assurance Report
Precision

Reference Method: SM 5310 B-2014
Batch ID: P441608

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2468768	Organic Carbon	1.10	Spike	P	0 - 15

Reference Method: SM 5310 B-2014
Batch ID: P441609

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2468914	Organic Carbon	1.41	Spike	P	0 - 15

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

Quality Assurance Report
Surrogates

Lab Sample ID: 2468939
Field Sample ID: G5SE0148

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	92.9	P	30 - 160
EPA 8321B	Acetaminophen-d4	48.0	P	30 - 160
EPA 8321B	Carbamazepine-d10	69.1	P	30 - 160
EPA 8321B	Diuron-d6	55.6	P	30 - 160
EPA 8321B	Endothall-d6	104	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	90.8	P	30 - 160
EPA 8321B	Ibuprofen-d3	80.2	P	30 - 160
EPA 8321B	Primidone-d5	59.7	P	30 - 160
EPA 8321B	Sucralose-d6	107	P	30 - 160

Quality Assurance Report
Calibration Verification

Reference Method: DEP SOP: NU-094-1
Run ID: A124173
Included Lab Sample IDs: 2468913, 2468915, 2468917, 2468923

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	100	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A124174
Included Lab Sample IDs: 2468909, 2468911, 2468913, 2468915, 2468917, 2468919, 2468921, 2468923

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

Reference Method: DEP SOP: NU-094-1
Run ID: A124175
Included Lab Sample IDs: 2468909, 2468911, 2468919, 2468921

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	97.9	108	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A124181
Included Lab Sample IDs: 2468939

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	104	70.6	P/P	60 - 160
Sucralose	98.6	93.5	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A124184
Included Lab Sample IDs: 2468939

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	94.2	99.1	P/P	60 - 160
Endothall	98.8	95.7	P/P	60 - 160
Glufosinate	71.9	81.4	P/P	60 - 160
Glyphosate	80.5	91.9	P/P	60 - 160

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A124204
Included Lab Sample IDs: 2468910, 2468912, 2468916, 2468918, 2468920, 2468922, 2468924

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	104	106	P/P	90 - 110
NO2NO3-N	105	105	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A124224
Included Lab Sample IDs: 2468910, 2468912, 2468914, 2468916, 2468918, 2468920, 2468922, 2468924

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.5	98.0	P/P	90 - 110
Ammonia-N	98.9	98.5	P/P	90 - 110
Ammonia-N	99.8	100	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-2014

Run ID: A124233

Included Lab Sample IDs: 2468910, 2468912, 2468914, 2468916, 2468918, 2468920, 2468922, 2468924

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	100	113	P/P	85 - 115
Organic Carbon	98.2	100	P/P	85 - 115

Reference Method: EPA 8321B

Run ID: A124241

Included Lab Sample IDs: 2468939

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	98.2	107	P/P	50 - 150
2,4,5-T	109	105	P/P	50 - 150
Acetaminophen	106	104	P/P	60 - 160
Acetamiprid	108	112	P/P	50 - 150
Afidopyropen	102	116	P/P	50 - 150
Bentazon	78.9	88.0	P/P	50 - 160
Benzovindiflupyr	97.3	100	P/P	50 - 150
Carbamazepine	110	109	P/P	60 - 150
Clothianidin	93.8	94.6	P/P	60 - 150
Dinotefuran	104	99.3	P/P	50 - 150
Diuron	99.9	97.1	P/P	60 - 160
Fenuron	107	105	P/P	60 - 150
Fluridone	104	113	P/P	60 - 160
Hydrocodone	107	107	P/P	60 - 150
Ibuprofen	72.2	158	P/P	50 - 160
Imazapyr	103	102	P/P	50 - 150
Imidacloprid	88.2	89.6	P/P	60 - 150
Linuron	102	111	P/P	60 - 150
Mandestrobin	108	106	P/P	50 - 150
MCPP	108	106	P/P	50 - 150
Naproxen	100	94.6	P/P	50 - 160
Primidone	92.6	102	P/P	60 - 150
Pyraclostrobin	101	99.1	P/P	60 - 150
Silvex	97.5	101	P/P	50 - 150
Thiamethoxam	96.9	94.2	P/P	50 - 150
Tolfenpyrad	97.6	97.2	P/P	60 - 150
Triclopyr	98.8	87.8	P/P	50 - 150

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A124250

Included Lab Sample IDs: 2468910, 2468914, 2468916, 2468918, 2468920, 2468922, 2468924

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	105	98.0	P/P	90 - 110
Kjeldahl Nitrogen	97.3	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A124263

Included Lab Sample IDs: 2468910, 2468912, 2468914, 2468916, 2468918, 2468920

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A124275

Included Lab Sample IDs: 2468922, 2468924

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.2	97.2	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A124284

Included Lab Sample IDs: 2468940, 2468941

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	96.0	98.3	P/P	90 - 110
Antimony	96.6	97.6	P/P	90 - 110
Arsenic	98.4	99.9	P/P	90 - 110
Barium	97.4	98.3	P/P	90 - 110
Beryllium	98.2	98.7	P/P	90 - 110
Boron	98.8	103	P/P	90 - 110
Cadmium	95.9	97.4	P/P	90 - 110
Cobalt	97.0	101	P/P	90 - 110
Copper	98.7	102	P/P	90 - 110
Lead	94.3	95.8	P/P	90 - 110
Manganese	94.6	95.7	P/P	90 - 110
Molybdenum	98.2	100	P/P	90 - 110
Selenium	96.7	96.7	P/P	90 - 110
Silver	97.4	99.4	P/P	90 - 110
Thallium	99.5	101	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A124304

Included Lab Sample IDs: 2468940, 2468941

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	103	98.6	P/P	95 - 105
Calcium	97.7	97.1	P/P	90 - 110
Iron	100	99.9	P/P	90 - 110
Iron	104	100	P/P	95 - 105
Magnesium	104	99.5	P/P	95 - 105
Magnesium	98.2	97.6	P/P	90 - 110
Potassium	102	98.9	P/P	95 - 105
Potassium	98.7	94.4	P/P	90 - 110
Tin	100	102	P/P	95 - 105
Tin	94.7	92.6	P/P	90 - 110
Titanium	97.7	95.2	P/P	90 - 110
Titanium	98.9	99.4	P/P	95 - 105
Vanadium	96.7	95.2	P/P	90 - 110
Vanadium	99.1	99.2	P/P	95 - 105
Zinc	101	98.8	P/P	95 - 105
Zinc	94.7	91.0	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A124344

Included Lab Sample IDs: 2468909, 2468911, 2468913, 2468915, 2468917

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	106	106	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A124344
Included Lab Sample IDs: 2468909, 2468911, 2468913, 2468915, 2468917

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	106	107	P/P	90 - 110
Chloride	107	106	P/P	90 - 110
Sulfate	104	104	P/P	90 - 110
Sulfate	104	104	P/P	90 - 110
Sulfate	104	103	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A124354
Included Lab Sample IDs: 2468940, 2468941

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sodium	93.7	92.6	P/P	90 - 110
Sodium	95.8	90.3	P/P	95 - 105

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A124372
Included Lab Sample IDs: 2468940, 2468941

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chromium	94.6	97.0	P/P	90 - 110
Nickel	94.2	96.5	P/P	90 - 110

Reference Method: SM 2320 B-2011
Run ID: A124375
Included Lab Sample IDs: 2468909, 2468911, 2468913, 2468915, 2468917, 2468919, 2468921, 2468923

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	94.9	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Run ID: A124375
Included Lab Sample IDs: 2468909, 2468911, 2468913, 2468915, 2468917, 2468919, 2468921, 2468923

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	103	104	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A124393
Included Lab Sample IDs: 2468940, 2468941

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

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A124439
Included Lab Sample IDs: 2468919, 2468921, 2468923

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.9	102	P/P	90 - 110
Sulfate	100	102	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A124511
Included Lab Sample IDs: 2468914

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A124544
Included Lab Sample IDs: 2468912

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	105	98.3	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)	101				4.42	
EPA 180.1 Rev. 2.0	Turbidity	104				15.2	
EPA 200.7 Rev. 4.4	Calcium	98.8		96.6	98.1		0.756
	Iron	104		105	101	98.0	3.18
	Magnesium	104		104	100	93.5	2.98
	Potassium	102		98.2	96.0	94.3	1.67
	Sodium	105		91.4	93.3	86.1	1.35
	Strontium	101		102	102	100	0.232
	Tin	99.2		94.6	93.9	93.7	0.806
	Titanium	102		79.5	77.8	98.9	1.57
	Vanadium	99.9		99.9	99.3	99.2	0.545
	Zinc	97.7		95.3	94.4	95.5	1.01
EPA 200.8 Rev. 5.4	Aluminum	99.3		86.6	96.3	98.4	6.41
	Antimony	99.1		98.5	98.0	100	0.438
	Arsenic	101		102	102	104	0.657
	Barium	99.9		101	101	101	0.419
	Beryllium	95.9		98.0	94.7	98.2	3.30
	Boron	102		105	105	104	0.137
	Cadmium	99.4		102	99.5	100	2.36
	Chromium	105		96.8	98.7	101	1.89
	Cobalt	99.5		102	101	101	1.29
	Copper	100		102	101	101	1.11
	Lead	95.2		95.9	95.7	97.7	0.278
	Manganese	99.0		102	99.8	100	1.92
	Molybdenum	99.0		104	99.9	103	4.39
	Nickel	99.4		95.3	97.6	97.5	2.34
	Selenium	98.2		98.7	98.4	100	0.269
	Silver	111		111	112	111	0.439
	Thallium	99.8		106	104	103	0.899
EPA 300.0 Rev. 2.1	Chloride	104		96.0	101		1.71
	Chloride	107		104	100		0.478
	Chloride	101		99.1	100		1.29
	Sulfate	101		99.5			1.95
	Sulfate	103		98.1	97.1		2.14
	Sulfate	101		99.0	98.4		1.63
EPA 350.1 Rev. 2.0	Ammonia-N	97.4		95.4	95.6		0.156
	Ammonia-N	96.6		96.2	96.6		0.234
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.9		99.2	105		3.01
	Kjeldahl Nitrogen	103		102	98.0		3.17
EPA 353.2 Rev. 2.0	NO2NO3-N	106		95.7	97.7		1.94
	NO2NO3-N	101		97.0	98.5		1.47
EPA 365.1 Rev. 2.0	Total-P	103					1.06
EPA 8321B	2,4-D	106		111	95.4		14.9
	2,4,5-T	128		122	103		17.4
	Acesulfame K	98.3		116	117		0.728
	Acetaminophen	88.0		104	97.5		6.78
	Acetamiprid	75.8		82.0	80.1		2.31
	Afidopyropen	55.6		57.8	75.2		26.1
	AMPA	94.6		80.4	83.8		3.13
	Bentazon	95.7		94.8	90.7		4.39
	Benzovindiflupyr	83.9		85.2	78.3		8.40
	Carbamazepine	87.9		79.9	72.7		9.44
	Clothianidin	88.6		97.1	85.9		12.2
	Dinotefuran	99.0		107	98.7		7.96

Quality Assurance Report

Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Diuron	82.3	78.7	73.1		6.66
	Endothall	92.0	99.2	97.5		1.67
	Fenuron	97.5	95.6	91.4		4.49
	Fluridone	96.5	85.6	81.9		4.50
	Glufosinate	74.7	80.6	85.4		5.67
	Glyphosate	79.1	68.5	74.9		6.12
	Hydrocodone	89.3	85.0	78.5		7.95
	Ibuprofen	99.5	53.1	59.6		11.6
	Imazapyr	101	98.1	96.8		1.36
	Imidacloprid	86.6	109	98.9		10.2
	Linuron	77.5	83.4	73.3		12.9
	Mandestrobin	88.7	91.2	84.6		7.54
	MCPP	101	103	95.6		7.06
	Naproxen	77.7	94.7	78.8		18.4
	Primidone	79.8	89.8	78.0		14.0
	Pyraclostrobin	78.9	79.8	72.8		9.09
	Silvex	93.1	94.8	90.4		4.78
	Sucralose	100	104	108		3.16
	Thiamethoxam	86.2	88.5	81.5		8.20
	Tolfenpyrad	49.8	59.2	48.5		19.8
	Triclopyr	124	109	112		2.69
SM 2320 B-2011	Total Alkalinity	99.2			0.199	
SM 2540 C-2015	TDS	93.6			5.05	
SM 2540 D-2015	TSS	95.2				
SM 4500-F- C-2011	Fluoride	100	101	101		0.477
SM 5310 B-2014	Organic Carbon	98.9	98.4	99.7		1.10
	Organic Carbon	99.7	99.5	102		1.41

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2468909, 2468911, 2468913, 2468915, 2468917, 2468919, 2468921, 2468923
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2468909, 2468911, 2468913, 2468915, 2468917, 2468919, 2468921, 2468923
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2468940, 2468941
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2468940, 2468941
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2468909, 2468911, 2468913, 2468915, 2468917, 2468919, 2468921, 2468923
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2468909, 2468911, 2468913, 2468915, 2468917, 2468919, 2468921, 2468923
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2468910, 2468912, 2468914, 2468916, 2468918, 2468920, 2468922, 2468924
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2468910, 2468912, 2468914, 2468916, 2468918, 2468920, 2468922, 2468924
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2468910, 2468912, 2468914, 2468916, 2468918, 2468920, 2468922, 2468924
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2468910, 2468912, 2468914, 2468916, 2468918, 2468920, 2468922, 2468924
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2468939
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2468909, 2468911, 2468913, 2468915, 2468917, 2468919, 2468921, 2468923
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2468940, 2468941

Reference Method Descriptions

Method	Description	Associated Samples
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2468909, 2468911, 2468913, 2468915, 2468917, 2468919, 2468921, 2468923
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2468909, 2468911, 2468913, 2468915, 2468917, 2468919, 2468921, 2468923
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2468909, 2468911, 2468913, 2468915, 2468917, 2468919, 2468921, 2468923
SM 5310 B-2014	Nonpurgeable Organic Carbon in aqueous matrices	2468910, 2468912, 2468914, 2468916, 2468918, 2468920, 2468922, 2468924

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	02/14/2024			02/14/2024 15:28	Jessica K Wilks	2468913
	02/14/2024			02/14/2024 15:29	Jessica K Wilks	2468915
	02/14/2024			02/14/2024 15:30	Jessica K Wilks	2468917
	02/14/2024			02/14/2024 15:32	Jessica K Wilks	2468923
	02/14/2024			02/14/2024 16:26	Jessica K Wilks	2468909, 2468911
	02/14/2024			02/14/2024 16:27	Jessica K Wilks	2468919
	02/14/2024			02/14/2024 16:28	Jessica K Wilks	2468921
EPA 180.1 Rev. 2.0	02/14/2024			02/14/2024 14:46	Anna M. Plaviak	2468909
	02/14/2024			02/14/2024 14:47	Anna M. Plaviak	2468911
	02/14/2024			02/14/2024 14:50	Anna M. Plaviak	2468913
	02/14/2024			02/14/2024 14:51	Anna M. Plaviak	2468915
	02/14/2024			02/14/2024 14:52	Anna M. Plaviak	2468917
	02/14/2024			02/14/2024 14:55	Anna M. Plaviak	2468919
	02/14/2024			02/14/2024 14:57	Anna M. Plaviak	2468921
EPA 200.7 Rev. 4.4	02/14/2024			02/14/2024 14:58	Anna M. Plaviak	2468923
	02/14/2024	02/15/2024 13:30	George D Taylor	02/20/2024 18:27	McKinley C Carter	2468941
	02/14/2024	02/15/2024 13:30	George D Taylor	02/20/2024 21:06	McKinley C Carter	2468940
	02/14/2024	02/15/2024 13:30	George D Taylor	02/22/2024 14:42	McKinley C Carter	2468941
	02/14/2024	02/15/2024 13:30	George D Taylor	02/22/2024 17:18	McKinley C Carter	2468940
	02/14/2024	02/15/2024 13:30	George D Taylor	02/26/2024 12:23	Chase Roberts	2468941
	02/14/2024	02/15/2024 13:30	George D Taylor	02/26/2024 13:30	Chase Roberts	2468940
EPA 200.8 Rev. 5.4	02/14/2024	02/15/2024 13:30	George D Taylor	02/20/2024 18:58	Emily M Philpot	2468941
	02/14/2024	02/15/2024 13:30	George D Taylor	02/20/2024 20:14	Emily M Philpot	2468940
	02/14/2024	02/23/2024 10:20	George D Taylor	02/23/2024 17:06	Conrad Hartmann	2468941
	02/14/2024	02/23/2024 10:20	George D Taylor	02/23/2024 17:46	Conrad Hartmann	2468940
EPA 300.0 Rev. 2.1	02/14/2024			02/23/2024 03:29	Samantha L Bates	2468917
	02/14/2024			02/23/2024 05:45	Samantha L Bates	2468913
	02/14/2024			02/23/2024 10:17	Samantha L Bates	2468909
	02/14/2024			02/23/2024 10:32	Samantha L Bates	2468911
	02/14/2024			02/23/2024 10:48	Samantha L Bates	2468915
	02/14/2024			02/26/2024 22:05	James L Waggeberby	2468919
	02/14/2024			02/26/2024 22:20	James L Waggeberby	2468921
EPA 350.1 Rev. 2.0	02/14/2024			02/26/2024 22:35	James L Waggeberby	2468923
	02/14/2024			02/16/2024 12:13	Kenneth H Lee	2468910
	02/14/2024			02/16/2024 12:37	Kenneth H Lee	2468916
	02/14/2024			02/16/2024 12:39	Kenneth H Lee	2468918
	02/14/2024			02/16/2024 12:43	Kenneth H Lee	2468924
	02/14/2024			02/16/2024 14:15	Kenneth H Lee	2468912
	02/14/2024			02/16/2024 14:16	Kenneth H Lee	2468914
	02/14/2024			02/16/2024 14:21	Kenneth H Lee	2468920

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 350.1 Rev. 2.0	02/14/2024			02/16/2024 14:23	Kenneth H Lee	2468922
EPA 351.2 Rev. 2.0	02/14/2024	02/16/2024 11:59	Simonne.V. Calhoun	02/19/2024 14:34	Samantha L Bates	2468910
	02/14/2024	02/16/2024 11:59	Simonne.V. Calhoun	02/19/2024 14:37	Samantha L Bates	2468914
	02/14/2024	02/16/2024 11:59	Simonne.V. Calhoun	02/19/2024 14:39	Samantha L Bates	2468916
	02/14/2024	02/16/2024 11:59	Simonne.V. Calhoun	02/19/2024 14:41	Samantha L Bates	2468918
	02/14/2024	02/16/2024 11:59	Simonne.V. Calhoun	02/19/2024 14:46	Samantha L Bates	2468920
	02/14/2024	02/16/2024 11:59	Simonne.V. Calhoun	02/19/2024 14:47	Samantha L Bates	2468922
	02/14/2024	02/16/2024 11:59	Simonne.V. Calhoun	02/19/2024 14:49	Samantha L Bates	2468924
	02/14/2024	03/04/2024 10:40	Simonne.V. Calhoun	03/05/2024 11:29	Ping Hua	2468912
	02/14/2024			02/15/2024 14:48	Fadila Guebre	2468910
EPA 353.2 Rev. 2.0	02/14/2024			02/15/2024 14:56	Fadila Guebre	2468916
	02/14/2024			02/15/2024 14:58	Fadila Guebre	2468918
	02/14/2024			02/15/2024 14:59	Fadila Guebre	2468920
	02/14/2024			02/15/2024 15:00	Fadila Guebre	2468922
	02/14/2024			02/15/2024 15:01	Fadila Guebre	2468924
	02/14/2024			02/15/2024 15:19	Fadila Guebre	2468912
	02/14/2024			03/01/2024 14:02	Fadila Guebre	2468914
EPA 365.1 Rev. 2.0	02/14/2024	02/19/2024 15:27	Adam P Silver	02/20/2024 11:37	Simonne.V. Calhoun	2468910
	02/14/2024	02/19/2024 15:27	Adam P Silver	02/20/2024 11:38	Simonne.V. Calhoun	2468914
	02/14/2024	02/19/2024 15:27	Adam P Silver	02/20/2024 11:39	Simonne.V. Calhoun	2468916
	02/14/2024	02/19/2024 15:27	Adam P Silver	02/20/2024 11:40	Simonne.V. Calhoun	2468918
	02/14/2024	02/19/2024 15:27	Adam P Silver	02/20/2024 11:41	Simonne.V. Calhoun	2468920
	02/14/2024	02/19/2024 15:27	Adam P Silver	02/20/2024 12:32	Simonne.V. Calhoun	2468912
	02/14/2024	02/19/2024 15:27	Adam P Silver	02/20/2024 16:17	Simonne.V. Calhoun	2468924
	02/14/2024	02/19/2024 15:27	Adam P Silver	02/20/2024 16:18	Simonne.V. Calhoun	2468922
EPA 8321B	02/14/2024	02/14/2024 12:30	Samatha Luckman	02/14/2024 15:31	Samatha Luckman	2468939
	02/14/2024	02/14/2024 12:30	Samatha Luckman	02/14/2024 21:06	Samatha Luckman	2468939
	02/14/2024	02/15/2024 13:00	Hoor Shaik	02/16/2024 21:43	Juyoung Kim	2468939
SM 2320 B-2011	02/14/2024			02/23/2024 00:31	Dale L. Simmons	2468909
	02/14/2024			02/23/2024 00:44	Dale L. Simmons	2468913
	02/14/2024			02/23/2024 00:56	Dale L. Simmons	2468915
	02/14/2024			02/23/2024 01:09	Dale L. Simmons	2468917
	02/14/2024			02/23/2024 01:21	Dale L. Simmons	2468919
	02/14/2024			02/23/2024 01:33	Dale L. Simmons	2468921
	02/14/2024			02/23/2024 01:42	Dale L. Simmons	2468923
	02/14/2024			02/23/2024 02:54	Dale L. Simmons	2468911
SM 2340 B-2011	02/14/2024			02/20/2024 18:27	McKinley C Carter	2468941
	02/14/2024			02/20/2024 21:06	McKinley C Carter	2468940
SM 2540 C-2015	02/14/2024			02/16/2024 15:01	Yijie Li	2468909, 2468911, 2468913, 2468915, 2468917, 2468919, 2468921, 2468923

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2540 D-2015	02/14/2024			02/16/2024 15:01	Yijie Li	2468909, 2468911, 2468913, 2468915, 2468917, 2468919, 2468921, 2468923
SM 4500-F- C-2011	02/14/2024			02/23/2024 00:31	Dale L. Simmons	2468909
	02/14/2024			02/23/2024 00:44	Dale L. Simmons	2468913
	02/14/2024			02/23/2024 00:56	Dale L. Simmons	2468915
	02/14/2024			02/23/2024 01:09	Dale L. Simmons	2468917
	02/14/2024			02/23/2024 01:21	Dale L. Simmons	2468919
	02/14/2024			02/23/2024 01:33	Dale L. Simmons	2468921
	02/14/2024			02/23/2024 01:42	Dale L. Simmons	2468923
SM 5310 B-2014	02/14/2024			02/23/2024 02:54	Dale L. Simmons	2468911
	02/14/2024			02/16/2024 21:34	Khloe J Berg	2468910
	02/14/2024			02/16/2024 21:48	Khloe J Berg	2468912
	02/14/2024			02/16/2024 23:06	Khloe J Berg	2468914
	02/14/2024			02/16/2024 23:49	Khloe J Berg	2468916
	02/14/2024			02/17/2024 00:03	Khloe J Berg	2468918
	02/14/2024			02/17/2024 00:17	Khloe J Berg	2468920
	02/14/2024			02/17/2024 00:31	Khloe J Berg	2468922
	02/14/2024			02/17/2024 00:45	Khloe J Berg	2468924