

Chemical Analysis Report

NE-DIST-2024-02-08-01

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

Event Description: **St.Augustine 2024**
Request ID: **RQ-2024-02-05-35**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
8800 Baymeadows Way West
Suite 100
Jacksonville, FL 32256
Attn: Jeremy Parrish

For additional information please contact
Colin Wright, Ph.D.
Chris Bowen, B.S.
Marek Topolski, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Marek Topolski, Environmental Specialist III

Date Certified: 06-MAR-2024 13:10

A handwritten signature in black ink, appearing to read "Marek Topolski", with a stylized, flowing script.

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: MOULTRIE CR AT US 1

Collection Date/Time: 02/07/2024 12:40

Field ID: 27010055

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2467243	EPA 200.7 Rev. 4.4	Calcium	239		mg/L	P441286	
		Iron	270	I	ug/L	P441286	
		Magnesium	681		mg/L	P441286	
		Potassium	222		mg/L	P441286	
		Sodium	5.01E+03		mg/L	P441286	
		Strontium	3.26E+03		ug/L	P441286	
		Tin	60	U	ug/L	P441286	
		Titanium	6.6	I	ug/L	P441286	MS
		Vanadium	6.0	U	ug/L	P441286	
		Zinc	15	U	ug/L	P441286	
	EPA 200.8 Rev. 5.4	Aluminum	291		ug/L	P441286	
		Antimony	0.20	U	ug/L	P441286	
		Arsenic	1.46		ug/L	P441286	
		Barium	20.4		ug/L	P441286	
		Beryllium	0.040	U	ug/L	P441286	
		Boron	2.19E+03		ug/L	P441286	
		Cadmium	0.080	U	ug/L	P441286	
		Chromium	4.0	U	ug/L	P441286	
		Cobalt	0.19	I	ug/L	P441286	
		Copper	2.9	I	ug/L	P441286	
		Lead	0.80	U	ug/L	P441286	
		Manganese	13.6		ug/L	P441286	
		Molybdenum	6.2		ug/L	P441286	
		Nickel	5.1	I	ug/L	P441286	
		Selenium	0.80	U	ug/L	P441286	
		Silver	0.040	U	ug/L	P441286	
		Thallium	0.40	U	ug/L	P441286	
	SM 2340 B-2011	Hardness	3.40E+03		mg/L	P441286	

Ref. Method and Comment:
 EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium, magnesium, potassium, sodium and strontium are unavailable because of high analyte concentration in the QC sample.
 EPA 200.8 Rev. 5.4: Batch matrix spike recoveries for boron are unavailable because of high analyte concentration in the QC sample.

Sample Location: OYSTER CR AT DIXIE HWY

Collection Date/Time: 02/07/2024 14:15

Field ID: 27010056

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2467231	DEP SOP: NU-094-1	Color (true)	37	A	PCU	P441152	
	EPA 180.1 Rev. 2.0	Turbidity	16		NTU	P441144	
	EPA 300.0 Rev. 2.1	Chloride	1.1E+04		mg Cl/L	P442057	
		Sulfate	1.5E+03		mg SO4/L	P441884	
	SM 2320 B-2011	Total Alkalinity	142		mg CaCO3/L	P441619	
	SM 2540 C-2015	TDS	1.82E+04	J	mg/L	P441653	
	SM 2540 D-2015	TSS	25	J	mg/L	P441543	
2467232	SM 4500-F- C-2011	Fluoride	0.72		mg F/L	P442195	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.099		mg N/L	P441226	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.52		mg N/L	P441264	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.028		mg N/L	P441247	
	EPA 365.1 Rev. 2.0	Total-P	0.076		mg P/L	P441357	
2467241	SM 5310 B-2014	Organic Carbon	6.9		mg C/L	P441455	
	EPA 8321B	2,4-D	0.026		ug/L	P441220	
		Acesulfame K	0.10	U	ug/L	P441101	
		2,4,5-T	0.0040	U	ug/L	P441220	
		AMPA	1.0	U	ug/L	P441101	
		Acetaminophen	0.0080	U	ug/L	P441220	
		Acetamiprid	0.0020	U	ug/L	P441220	
		Endothall	0.25	U	ug/L	P441101	
		Glufosinate	1.0	U	ug/L	P441101	
		Glyphosate	1.0	U	ug/L	P441101	
		Afidopyropen	0.0020	U	ug/L	P441220	
		Bentazon	0.0065		ug/L	P441220	
		Sucralose	0.33		ug/L	P441101	
		Benzovindiflupyr	0.0020	U	ug/L	P441220	
		Carbamazepine	8.0E-04	U	ug/L	P441220	
		Clothianidin	0.0020	U	ug/L	P441220	
		Dinotefuran	0.0020	U	ug/L	P441220	
		Diuron	0.0020	U	ug/L	P441220	
		Fenuron	0.032	U	ug/L	P441220	
		Fluridone	8.0E-04	U	ug/L	P441220	
		Imazapyr	0.026		ug/L	P441220	
		Hydrocodone	0.0020	U	ug/L	P441220	
		Ibuprofen	0.080	U	ug/L	P441220	
		Imidacloprid	0.0020	U	ug/L	P441220	
		Linuron	0.0040	U	ug/L	P441220	
		Mandestrobin	0.0020	U	ug/L	P441220	
		MCPP	0.0020	U	ug/L	P441220	
		Naproxen	0.0080	U	ug/L	P441220	
		Primidone	0.0043	I	ug/L	P441220	
		Pyraclostrobin	0.0020	U	ug/L	P441220	
		Silvex	0.0040	U	ug/L	P441220	
		Thiamethoxam	0.0020	U	ug/L	P441220	

Field ID: 27010056

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2467241	EPA 8321B	Tolfenpyrad	0.0020	U	ug/L	P441220	
		Triclopyr	0.0040	U	ug/L	P441220	

Ref. Method and Comment:
SM 2540 C-2015: The reported result is consistent with the conductivity measured in the laboratory, 29500 umhos/cm. Constant dry weight was not attained.
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample. Sample was not analyzed using the protocol for saline matrices. Result may be biased high.
SM 4500-F- C-2011: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.
EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.
EPA 8321B: MS accuracy for sucralose could not be assessed due to a high concentration of parameter in the spiked sample. Some MDLs are elevated due to required dilution of sample matrix.

Sample Location: FB

Collection Date/Time: 02/07/2024 14:20

Field ID: FB_02072024

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2467233	DEP SOP: NU-094-1	Color (true)	2.5	U	PCU	P441149	MS
	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P441144	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P441881	
		Sulfate	0.20	U	mg SO4/L	P441846	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P441797	
	SM 2540 C-2015	TDS	15	U	mg/L	P441653	
	SM 2540 D-2015	TSS	2	U	mg/L	P441543	
	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P441623	
2467234	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P441227	MS
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P441268	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P441299	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P441361	
	SM 5310 B-2014	Organic Carbon	0.50	U	mg C/L	P441455	
2467242	EPA 8321B	2,4-D	0.0020	U	ug/L	P441220	MS
		Acesulfame K	0.10	U	ug/L	P441101	
		2,4,5-T	0.0040	U	ug/L	P441220	
		AMPA	0.10	U	ug/L	P441101	
		Acetaminophen	0.0080	U	ug/L	P441220	
		Acetamiprid	0.0020	U	ug/L	P441220	
		Endothall	0.25	U	ug/L	P441101	
		Glufosinate	0.10	U	ug/L	P441101	
		Glyphosate	0.10	U	ug/L	P441101	
		Afidopyropen	0.0020	U	ug/L	P441220	
		Bentazon	8.0E-04	U	ug/L	P441220	
		Sucralose	0.010	U	ug/L	P441101	
		Benzovindiflupyr	0.0020	U	ug/L	P441220	
		Carbamazepine	8.0E-04	U	ug/L	P441220	
		Clothianidin	0.0020	U	ug/L	P441220	
		Dinotefuran	0.0020	U	ug/L	P441220	
		Diuron	0.0020	U	ug/L	P441220	
		Fenuron	0.032	U	ug/L	P441220	
		Fluridone	8.0E-04	U	ug/L	P441220	
		Imazapyr	0.0040	U	ug/L	P441220	
		Hydrocodone	0.0020	U	ug/L	P441220	
		Ibuprofen	0.080	U	ug/L	P441220	
		Imidacloprid	0.0020	U	ug/L	P441220	
		Linuron	0.0040	U	ug/L	P441220	
		Mandestrobin	0.0020	U	ug/L	P441220	
		MCP	0.0020	U	ug/L	P441220	
		Naproxen	0.0080	U	ug/L	P441220	
		Primidone	0.0040	U	ug/L	P441220	
		Pyraclostrobin	0.0020	U	ug/L	P441220	
		Silvex	0.0040	U	ug/L	P441220	
		Thiamethoxam	0.0020	U	ug/L	P441220	

Field ID: FB_02072024

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2467242	EPA 8321B	Tolfenpyrad	0.0020	U	ug/L	P441220	
		Triclopyr	0.0040	U	ug/L	P441220	

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

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

**Sample Location: PRINGLE BRANCH AT SJRWMD EASEMENT
300M ABV DAVE BRANCH**

Collection Date/Time: 02/07/2024 11:25

Field ID: G5NE0611

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2467244	EPA 200.7 Rev. 4.4	Calcium	19.5		mg/L	P441235	
		Iron	920		ug/L	P441235	
		Magnesium	1.91		mg/L	P441235	
		Potassium	0.30	U	mg/L	P441235	
		Sodium	12.8		mg/L	P441235	
		Strontium	87.0		ug/L	P441235	
		Tin	3.0	U	ug/L	P441235	
		Titanium	0.87	I	ug/L	P441235	
		Vanadium	2.0	U	ug/L	P441235	
		Zinc	8.1	I	ug/L	P441235	
	EPA 200.8 Rev. 5.4	Aluminum	356		ug/L	P441235	
		Antimony	0.050	U	ug/L	P441235	
		Arsenic	0.24		ug/L	P441235	
		Barium	11.9		ug/L	P441235	
		Beryllium	0.032	I	ug/L	P441235	
		Boron	15.6		ug/L	P441235	
		Cadmium	0.020	U	ug/L	P441235	
		Chromium	1.4	I	ug/L	P441235	
		Cobalt	0.162		ug/L	P441235	
		Copper	0.40	U	ug/L	P441235	
		Lead	0.21	I	ug/L	P441235	
		Manganese	5.90		ug/L	P441235	
		Molybdenum	0.15	U	ug/L	P441235	
		Nickel	0.50	U	ug/L	P441235	
		Selenium	0.20	U	ug/L	P441235	
		Silver	0.010	U	ug/L	P441235	
		Thallium	0.10	U	ug/L	P441235	
	SM 2340 B-2011	Hardness	56.5		mg/L	P441235	

Quality Assurance Report

Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P441149

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: DEP SOP: NU-094-1
Batch ID: P441152

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P441144

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P441235

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 200.7 Rev. 4.4
Batch ID: P441286

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: P441235

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P441235

Component	Result	Code	Units
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 200.8 Rev. 5.4
Batch ID: P441286

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: P441846

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P441881

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P441884

Component	Result	Code	Units
-----------	--------	------	-------

Quality Assurance Report

Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P441884

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P442057

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P441226

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P441227

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P441264

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P441268

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P441247

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P441299

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P441357

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P441361

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

Reference Method: EPA 8321B
Batch ID: P441101

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: P441220

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
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: P441619

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

Quality Assurance Report
Method Blank Results

Reference Method: SM 2320 B-2011
Batch ID: P441797

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

Reference Method: SM 2540 C-2015
Batch ID: P441653

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P441543

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P441623

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 4500-F- C-2011
Batch ID: P442195

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2014
Batch ID: P441455

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: P441149

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	96.1		P	90 - 110

Reference Method: DEP SOP: NU-094-1
Batch ID: P441152

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.1		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P441144

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P441235

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	109		P	85 - 115
Iron	114		P	85 - 115
Magnesium	108		P	85 - 115
Potassium	102		P	85 - 115
Sodium	104		P	85 - 115
Strontium	97.1		P	85 - 115
Tin	97.4		P	85 - 115
Titanium	103		P	85 - 115
Vanadium	101		P	85 - 115
Zinc	96.7		P	85 - 115

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P441286

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	94.7		P	80 - 120
Iron	100		P	80 - 120
Magnesium	95.6		P	80 - 120
Potassium	102		P	85 - 115
Sodium	101		P	85 - 115
Strontium	100		P	85 - 115
Tin	96.2		P	80 - 120
Titanium	101		P	80 - 120
Vanadium	98.2		P	80 - 120
Zinc	92.1		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P441235

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	101		P	85 - 115
Antimony	100		P	85 - 115
Arsenic	103		P	85 - 115
Barium	101		P	85 - 115

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P441235

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Beryllium	97.2		P	85 - 115
Boron	105		P	85 - 115
Cadmium	99.4		P	85 - 115
Chromium	104		P	85 - 115
Cobalt	102		P	85 - 115
Copper	102		P	85 - 115
Lead	95.8		P	85 - 115
Manganese	103		P	85 - 115
Molybdenum	99.5		P	85 - 115
Nickel	102		P	85 - 115
Selenium	104		P	85 - 115
Silver	104		P	85 - 115
Thallium	101		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P441286

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	106		P	85 - 115
Antimony	103		P	85 - 115
Arsenic	97.8		P	85 - 115
Barium	103		P	85 - 115
Beryllium	90.8		P	85 - 115
Boron	112		P	85 - 115
Cadmium	102		P	85 - 115
Chromium	105		P	85 - 115
Cobalt	98.7		P	85 - 115
Copper	97.4		P	85 - 115
Lead	97.7		P	85 - 115
Manganese	103		P	85 - 115
Molybdenum	99.3		P	85 - 115
Nickel	97.9		P	85 - 115
Selenium	102		P	85 - 115
Silver	98.9		P	85 - 115
Thallium	101		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P441846

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P441881

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P441884

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
-----------	---------	---------	-----------	----------------

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P441884

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P442057

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P441226

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	94.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P441227

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	94.8		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P441264

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P441268

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: P441247

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P441299

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P441357

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P441361

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

Reference Method: EPA 8321B
Batch ID: P441101

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	116		P	40 - 150
AMPA	106		P	40 - 160
Endothall	88.2		P	40 - 160
Glufosinate	101		P	40 - 160
Glyphosate	97.0		P	40 - 160
Sucralose	105		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P441220

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	70.8		P	40 - 150
2,4,5-T	68.5		P	40 - 150
Acetaminophen	77.6		P	30 - 150
Acetamiprid	69.0		P	40 - 150
Afidopyropen	60.2		P	30 - 150
Bentazon	68.7		P	30 - 150
Benzovindiflupyr	77.5		P	40 - 150
Carbamazepine	73.1		P	40 - 150
Clothianidin	79.6		P	40 - 150
Dinotefuran	89.3		P	40 - 150
Diuron	69.4		P	40 - 150
Fenuron	83.7		P	40 - 150
Fluridone	80.3		P	40 - 150
Hydrocodone	85.8		P	40 - 150
Ibuprofen	78.9		P	40 - 150
Imazapyr	69.9		P	40 - 150
Imidacloprid	79.9		P	40 - 150
Linuron	73.3		P	40 - 150
Mandestrobin	73.7		P	40 - 150
MCPP	65.1		P	40 - 150
Naproxen	77.8		P	40 - 150
Primidone	70.0		P	40 - 150
Pyraclostrobin	74.8		P	40 - 150
Silvex	56.5		P	40 - 150
Thiamethoxam	85.8		P	40 - 150
Tolfenpyrad	49.0		P	30 - 150
Triclopyr	66.4		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P441619

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	95.7		P	92 - 105

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P441797

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.4		P	92 - 105

Reference Method: SM 2540 C-2015
Batch ID: P441653

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

Reference Method: SM 2540 D-2015
Batch ID: P441543

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	108		P	85 - 115

Reference Method: SM 4500-F- C-2011
Batch ID: P441623

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	104		P	94 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P442195

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	102		P	94 - 106

Reference Method: SM 5310 B-2014
Batch ID: P441455

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.6		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P441235

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2467221	Calcium	106		P	80 - 120
2467221	Iron	114	113	P/P	80 - 120
2467221	Magnesium	106		P	80 - 120
2467221	Potassium	102		P	80 - 120
2467221	Sodium	103		P	80 - 120
2467221	Strontium	95.0	94.4	P/P	80 - 120
2467221	Tin	94.0	93.1	P/P	80 - 120
2467221	Titanium	102	99.1	P/P	80 - 120
2467221	Vanadium	101	99.6	P/P	80 - 120
2467221	Zinc	94.2	93.4	P/P	80 - 120
2467412	Calcium	109		P	80 - 120
2467412	Iron	114		P	80 - 120
2467412	Magnesium	113		P	80 - 120
2467412	Potassium	101		P	80 - 120
2467412	Sodium	104		P	80 - 120
2467412	Strontium	95.8		P	80 - 120
2467412	Tin	94.8		P	80 - 120
2467412	Titanium	99.3		P	80 - 120
2467412	Vanadium	102		P	80 - 120
2467412	Zinc	97.6		P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P441286

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2467558	Iron	95.9	97.7	P/P	80 - 120
2467558	Tin	86.6	90.4	P/P	80 - 120
2467558	Titanium	73.4	81.7	F/P	80 - 120
2467558	Vanadium	102	104	P/P	80 - 120
2467558	Zinc	92.1	92.0	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P441235

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2467221	Aluminum	100	102	P/P	80 - 120
2467221	Antimony	104	102	P/P	80 - 120
2467221	Arsenic	104	105	P/P	80 - 120
2467221	Barium	104	102	P/P	80 - 120
2467221	Beryllium	97.5	97.8	P/P	80 - 120
2467221	Boron	103	105	P/P	80 - 120
2467221	Cadmium	102	102	P/P	80 - 120
2467221	Chromium	105	104	P/P	80 - 120
2467221	Cobalt	102	103	P/P	80 - 120
2467221	Copper	102	102	P/P	80 - 120
2467221	Lead	96.9	96.9	P/P	80 - 120
2467221	Manganese	104	105	P/P	80 - 120
2467221	Molybdenum	102	103	P/P	80 - 120
2467221	Nickel	103	104	P/P	80 - 120
2467221	Selenium	103	104	P/P	80 - 120
2467221	Silver	103	102	P/P	80 - 120
2467221	Thallium	104	104	P/P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P441235

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2467412	Aluminum	102		P	80 - 120
2467412	Antimony	102		P	80 - 120
2467412	Arsenic	102		P	80 - 120
2467412	Barium	102		P	80 - 120
2467412	Beryllium	97.4		P	80 - 120
2467412	Boron	104		P	80 - 120
2467412	Cadmium	103		P	80 - 120
2467412	Chromium	104		P	80 - 120
2467412	Cobalt	102		P	80 - 120
2467412	Copper	101		P	80 - 120
2467412	Lead	98.1		P	80 - 120
2467412	Manganese	104		P	80 - 120
2467412	Molybdenum	101		P	80 - 120
2467412	Nickel	103		P	80 - 120
2467412	Selenium	103		P	80 - 120
2467412	Silver	104		P	80 - 120
2467412	Thallium	104		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P441286

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2467558	Aluminum	116	112	P/P	70 - 130
2467558	Antimony	107	105	P/P	70 - 130
2467558	Arsenic	104	103	P/P	70 - 130
2467558	Barium	106	104	P/P	70 - 130
2467558	Beryllium	90.9	89.3	P/P	70 - 130
2467558	Cadmium	101	95.5	P/P	70 - 130
2467558	Chromium	105	105	P/P	70 - 130
2467558	Cobalt	102	99.7	P/P	70 - 130
2467558	Copper	101	99.8	P/P	70 - 130
2467558	Lead	105	103	P/P	70 - 130
2467558	Manganese	102	100	P/P	70 - 130
2467558	Molybdenum	112	110	P/P	70 - 130
2467558	Nickel	99.2	99.8	P/P	70 - 130
2467558	Selenium	105	104	P/P	70 - 130
2467558	Silver	88.6	87.3	P/P	70 - 130
2467558	Thallium	106	106	P/P	70 - 130

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P441846

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2467588	Sulfate	108		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P441881

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2467405	Chloride	93.7		P	90 - 110
2467544	Chloride	95.4		P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P441884

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2467405	Sulfate	90.7		P	90 - 110
2467544	Sulfate	94.0		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P442057

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2469588	Chloride	103		P	90 - 110
2469797	Chloride	105		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P441226

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2467161	Ammonia-N	102	103	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P441227

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2467253	Ammonia-N	96.0	96.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P441264

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2467191	Kjeldahl Nitrogen	102	104	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P441268

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2467134	Kjeldahl Nitrogen	108	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P441247

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2467162	NO2NO3-N	102	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P441299

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2467187	NO2NO3-N	101	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P441357

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2467164	Total-P	97.0	95.0	P/P	90 - 110

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P441361

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2467313	Total-P	105	101	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P441101

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2466866	Acesulfame K	133	139	P/P	40 - 150
2466866	AMPA	106	106	P/P	40 - 160
2466866	Endothall	98.8	99.3	P/P	40 - 160
2466866	Glufosinate	101	104	P/P	40 - 160
2466866	Glyphosate	100	103	P/P	40 - 160

Reference Method: EPA 8321B
Batch ID: P441220

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2467206	2,4-D	59.3	61.4	P/P	40 - 150
2467206	2,4,5-T	55.1	54.3	P/P	40 - 150
2467206	Acetaminophen	80.1	87.4	P/P	30 - 150
2467206	Acetamiprid	59.1	66.0	P/P	40 - 150
2467206	Afidopyropen	60.4	67.2	P/P	30 - 150
2467206	Benzovindiflupyr	75.6	86.2	P/P	40 - 150
2467206	Carbamazepine	62.2	65.6	P/P	40 - 150
2467206	Clothianidin	78.7	79.5	P/P	40 - 150
2467206	Dinotefuran	81.1	91.2	P/P	40 - 150
2467206	Diuron	56.0	60.5	P/P	40 - 150
2467206	Fenuron	99.5	102	P/P	40 - 150
2467206	Hydrocodone	68.7	74.3	P/P	40 - 150
2467206	Ibuprofen	90.8	108	P/P	40 - 150
2467206	Imidacloprid	96.9	108	P/P	40 - 150
2467206	Linuron	61.3	64.9	P/P	40 - 150
2467206	Mandestrobin	74.6	80.4	P/P	40 - 150
2467206	MCPP	61.9	69.9	P/P	40 - 150
2467206	Naproxen	134	114	P/P	40 - 150
2467206	Primidone	68.4	78.2	P/P	40 - 150
2467206	Pyraclostrobin	76.7	89.4	P/P	40 - 150
2467206	Silvex	55.5	56.6	P/P	40 - 150
2467206	Thiamethoxam	75.5	84.9	P/P	40 - 150
2467206	Tolfenpyrad	46.7	57.9	P/P	30 - 150
2467206	Triclopyr	53.3	53.8	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P441623

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2467031	Fluoride	107	107	F/F	94 - 106

Reference Method: SM 5310 B-2014
Batch ID: P441455

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2467062	Organic Carbon	100	99.9	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P441149

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2467190	Color (true)	7.58	Sample	P	0 - 20

Reference Method: DEP SOP: NU-094-1
Batch ID: P441152

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2467231	Color (true)	2.78	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P441144

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2467030	Turbidity	3.19	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P441235

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2467221	Calcium	0.0995	Spike	P	0 - 20
2467221	Iron	0.788	Spike	P	0 - 20
2467221	Magnesium	0.136	Spike	P	0 - 20
2467221	Potassium	0.0867	Spike	P	0 - 20
2467221	Sodium	0.0566	Spike	P	0 - 20
2467221	Strontium	0.606	Spike	P	0 - 20
2467221	Tin	1.01	Spike	P	0 - 20
2467221	Titanium	2.99	Spike	P	0 - 20
2467221	Vanadium	0.921	Spike	P	0 - 20
2467221	Zinc	0.762	Spike	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P441286

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2467558	Calcium	0.470	Spike	P	0 - 20
2467558	Iron	1.54	Spike	P	0 - 20
2467558	Magnesium	2.13	Spike	P	0 - 20
2467558	Potassium	1.13	Spike	P	0 - 20
2467558	Sodium	1.36	Spike	P	0 - 20
2467558	Strontium	0.854	Spike	P	0 - 20
2467558	Tin	4.27	Spike	P	0 - 20
2467558	Titanium	6.61	Spike	P	0 - 20
2467558	Vanadium	2.61	Spike	P	0 - 20
2467558	Zinc	0.102	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P441235

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2467221	Aluminum	1.57	Spike	P	0 - 20
2467221	Antimony	1.25	Spike	P	0 - 20
2467221	Arsenic	0.526	Spike	P	0 - 20
2467221	Barium	1.45	Spike	P	0 - 20
2467221	Beryllium	0.325	Spike	P	0 - 20
2467221	Boron	1.43	Spike	P	0 - 20
2467221	Cadmium	0.132	Spike	P	0 - 20
2467221	Chromium	1.02	Spike	P	0 - 20
2467221	Cobalt	0.183	Spike	P	0 - 20
2467221	Copper	0.220	Spike	P	0 - 20
2467221	Lead	0.00103	Spike	P	0 - 20
2467221	Manganese	0.384	Spike	P	0 - 20
2467221	Molybdenum	0.972	Spike	P	0 - 20
2467221	Nickel	0.816	Spike	P	0 - 20
2467221	Selenium	0.532	Spike	P	0 - 20
2467221	Silver	1.08	Spike	P	0 - 20
2467221	Thallium	0.0100	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P441286

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2467558	Aluminum	2.55	Spike	P	0 - 20
2467558	Antimony	1.77	Spike	P	0 - 20
2467558	Arsenic	0.585	Spike	P	0 - 20
2467558	Barium	1.69	Spike	P	0 - 20
2467558	Beryllium	1.71	Spike	P	0 - 20
2467558	Boron	2.41	Spike	P	0 - 20
2467558	Cadmium	5.25	Spike	P	0 - 20
2467558	Chromium	0.00661	Spike	P	0 - 20
2467558	Cobalt	2.37	Spike	P	0 - 20
2467558	Copper	1.58	Spike	P	0 - 20
2467558	Lead	1.34	Spike	P	0 - 20
2467558	Manganese	1.31	Spike	P	0 - 20
2467558	Molybdenum	1.75	Spike	P	0 - 20
2467558	Nickel	0.521	Spike	P	0 - 20
2467558	Selenium	1.17	Spike	P	0 - 20
2467558	Silver	1.48	Spike	P	0 - 20
2467558	Thallium	0.649	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P441846

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2467201	Sulfate	3.45	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P441881

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2467405	Chloride	3.03	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P441884

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2467405	Sulfate	2.26	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P442057

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2469588	Chloride	0.947	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P441226

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2467161	Ammonia-N	1.17	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P441227

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2467253	Ammonia-N	0.190	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P441264

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2467191	Kjeldahl Nitrogen	2.18	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P441268

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2467134	Kjeldahl Nitrogen	5.11	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P441247

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2467162	NO2NO3-N	1.45	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P441299

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2467187	NO2NO3-N	0.755	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P441357

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2467164	Total-P	2.03	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P441361

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2467313	Total-P	3.37	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P441101

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2466866	Acesulfame K	3.89	Spike	P	0 - 30
2466866	AMPA	0.403	Spike	P	0 - 30
2466866	Endothall	0.473	Spike	P	0 - 30
2466866	Glufosinate	3.51	Spike	P	0 - 30
2466866	Glyphosate	1.27	Spike	P	0 - 30
2466866	Sucralose	3.64	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P441220

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2467206	2,4-D	3.29	Spike	P	0 - 30
2467206	2,4,5-T	1.48	Spike	P	0 - 30
2467206	Acetaminophen	8.66	Spike	P	0 - 30
2467206	Acetamiprid	11.0	Spike	P	0 - 30
2467206	Afidopyropen	10.6	Spike	P	0 - 30
2467206	Bentazon	1.19	Spike	P	0 - 30
2467206	Benzovindiflupyr	13.0	Spike	P	0 - 30
2467206	Carbamazepine	5.32	Spike	P	0 - 30
2467206	Clothianidin	0.996	Spike	P	0 - 30
2467206	Dinotefuran	11.8	Spike	P	0 - 30
2467206	Diuron	5.78	Spike	P	0 - 30
2467206	Fenuron	2.05	Spike	P	0 - 30
2467206	Fluridone	5.45	Spike	P	0 - 30
2467206	Hydrocodone	7.90	Spike	P	0 - 30
2467206	Ibuprofen	17.6	Spike	P	0 - 30
2467206	Imazapyr	1.24	Spike	P	0 - 30
2467206	Imidacloprid	10.3	Spike	P	0 - 30
2467206	Linuron	5.73	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P441220

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2467206	Mandestrobin	7.46	Spike	P	0 - 30
2467206	MCCP	12.1	Spike	P	0 - 30
2467206	Naproxen	16.6	Spike	P	0 - 30
2467206	Primidone	13.4	Spike	P	0 - 30
2467206	Pyraclostrobin	15.4	Spike	P	0 - 30
2467206	Silvex	2.08	Spike	P	0 - 30
2467206	Thiamethoxam	11.7	Spike	P	0 - 30
2467206	Tolfenpyrad	21.4	Spike	P	0 - 30
2467206	Triclopyr	0.836	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P441619

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2467031	Total Alkalinity	0.591	Sample	P	0 - 3.9

Reference Method: SM 2320 B-2011
Batch ID: P441797

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2468475	Total Alkalinity	0.205	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P441653

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2467032	TDS	7.14	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P441623

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2467031	Fluoride	0.0	Spike	P	0 - 1.9

Reference Method: SM 4500-F- C-2011
Batch ID: P442195

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2470973	Fluoride	0.940	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2014
Batch ID: P441455

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2467062	Organic Carbon	0.300	Spike	P	0 - 15

Quality Assurance Report Precision

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

Quality Assurance Report Surrogates

Lab Sample ID: 2467241
Field Sample ID: 27010056

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	60.7	P	30 - 160
EPA 8321B	Acetaminophen-d4	89.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	71.3	P	30 - 160
EPA 8321B	Diuron-d6	77.3	P	30 - 160
EPA 8321B	Endothall-d6	74.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	84.7	P	30 - 160
EPA 8321B	Ibuprofen-d3	104	P	30 - 160
EPA 8321B	Primidone-d5	84.6	P	30 - 160
EPA 8321B	Sucralose-d6	58.4	P	30 - 160

Lab Sample ID: 2467242
Field Sample ID: FB_02072024

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	62.5	P	30 - 160
EPA 8321B	Acetaminophen-d4	77.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	74.8	P	30 - 160
EPA 8321B	Diuron-d6	78.6	P	30 - 160
EPA 8321B	Endothall-d6	71.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	90.0	P	30 - 160
EPA 8321B	Ibuprofen-d3	95.0	P	30 - 160
EPA 8321B	Primidone-d5	73.1	P	30 - 160
EPA 8321B	Sucralose-d6	110	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A124028

Included Lab Sample IDs: 2467241, 2467242

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	93.6	91.0	P/P	60 - 160
AMPA	99.5	95.8	P/P	60 - 160
Endothall	70.6	66.4	P/P	60 - 160
Glufosinate	74.8	77.0	P/P	60 - 160
Glufosinate	95.6	94.2	P/P	60 - 160
Glyphosate	81.5	87.4	P/P	60 - 160
Glyphosate	94.2	94.5	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A124029

Included Lab Sample IDs: 2467241, 2467242

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	138	75.5	P/P	60 - 160
Sucralose	117	111	P/P	60 - 160

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A124064

Included Lab Sample IDs: 2467231, 2467233

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.0	99.5	P/P	95 - 105

Reference Method: DEP SOP: NU-094-1

Run ID: A124066

Included Lab Sample IDs: 2467231, 2467233

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.9	97.2	P/P	90 - 110
Color (true)	99.7	98.4	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A124088

Included Lab Sample IDs: 2467232, 2467234

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	96.0	98.5	P/P	90 - 110
Ammonia-N	96.8	96.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A124095

Included Lab Sample IDs: 2467232

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A124114

Included Lab Sample IDs: 2467234

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
-----------	---------	---------	------------	----------------

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A124114

Included Lab Sample IDs: 2467234

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A124128

Included Lab Sample IDs: 2467232

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	108	100	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A124149

Included Lab Sample IDs: 2467244

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	99.3	101	P/P	90 - 110
Antimony	99.4	99.4	P/P	90 - 110
Arsenic	99.9	99.7	P/P	90 - 110
Barium	99.6	100	P/P	90 - 110
Beryllium	99.1	99.1	P/P	90 - 110
Boron	100	101	P/P	90 - 110
Cadmium	98.4	97.9	P/P	90 - 110
Chromium	97.2	98.3	P/P	90 - 110
Cobalt	97.6	98.0	P/P	90 - 110
Copper	98.2	99.2	P/P	90 - 110
Lead	95.3	95.0	P/P	90 - 110
Manganese	97.4	98.5	P/P	90 - 110
Molybdenum	98.9	99.7	P/P	90 - 110
Nickel	98.3	98.7	P/P	90 - 110
Selenium	98.7	99.7	P/P	90 - 110
Silver	99.3	99.5	P/P	90 - 110
Thallium	99.6	99.8	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A124151

Included Lab Sample IDs: 2467241, 2467242

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	83.8	76.5	P/P	50 - 150
2,4,5-T	79.5	75.9	P/P	50 - 150
Acetaminophen	101	101	P/P	60 - 160
Acetamiprid	107	103	P/P	50 - 150
Afidopyropen	108	105	P/P	50 - 150
Bentazon	76.4	76.7	P/P	50 - 160
Benzovindiflupyr	101	100	P/P	50 - 150
Carbamazepine	114	109	P/P	60 - 150
Clothianidin	100	98.5	P/P	60 - 150
Dinotefuran	105	106	P/P	50 - 150
Diuron	108	105	P/P	60 - 160
Fenuron	104	104	P/P	60 - 150
Fluridone	115	105	P/P	60 - 160
Hydrocodone	110	112	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A124151

Included Lab Sample IDs: 2467241, 2467242

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ibuprofen	150	139	P/P	50 - 160
Imazapyr	74.5	69.9	P/P	50 - 150
Imidacloprid	101	99.2	P/P	60 - 150
Linuron	91.8	94.3	P/P	60 - 150
Mandestrobin	98.7	104	P/P	50 - 150
MCPP	81.8	82.8	P/P	50 - 150
Naproxen	129	132	P/P	50 - 160
Primidone	96.4	82.3	P/P	60 - 150
Pyraclostrobin	109	110	P/P	60 - 150
Silvex	76.7	67.2	P/P	50 - 150
Thiamethoxam	111	111	P/P	50 - 150
Tolfenpyrad	98.2	99.6	P/P	60 - 150
Triclopyr	69.6	74.8	P/P	50 - 150

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A124178

Included Lab Sample IDs: 2467244

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	105	107	P/P	90 - 110
Iron	105	106	P/P	90 - 110
Magnesium	104	105	P/P	90 - 110
Potassium	102	102	P/P	90 - 110
Sodium	102	102	P/P	90 - 110
Strontium	96.9	96.9	P/P	90 - 110
Tin	100	101	P/P	90 - 110
Titanium	103	104	P/P	90 - 110
Vanadium	103	103	P/P	90 - 110
Zinc	101	101	P/P	90 - 110

Reference Method: SM 5310 B-2014

Run ID: A124179

Included Lab Sample IDs: 2467232, 2467234

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.3	116	P/P	85 - 115

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A124193

Included Lab Sample IDs: 2467234

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.1	103	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A124236

Included Lab Sample IDs: 2467231

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.3	95.4	P/P	90 - 110

Quality Assurance Report

Calibration Verification

Reference Method: SM 4500-F- C-2011
Run ID: A124236
Included Lab Sample IDs: 2467233

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

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A124256
Included Lab Sample IDs: 2467243

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	106	106	P/P	90 - 110
Antimony	100	101	P/P	90 - 110
Arsenic	92.6	92.9	P/P	90 - 110
Barium	101	101	P/P	90 - 110
Beryllium	94.5	92.8	P/P	90 - 110
Boron	105	106	P/P	90 - 110
Cadmium	96.7	95.8	P/P	90 - 110
Chromium	97.6	97.6	P/P	90 - 110
Cobalt	93.8	93.9	P/P	90 - 110
Copper	94.6	94.4	P/P	90 - 110
Lead	94.4	92.7	P/P	90 - 110
Manganese	97.2	98.8	P/P	90 - 110
Molybdenum	96.0	94.5	P/P	90 - 110
Nickel	95.3	94.0	P/P	90 - 110
Selenium	98.4	100	P/P	90 - 110
Silver	95.4	94.7	P/P	90 - 110
Thallium	96.0	94.3	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A124275
Included Lab Sample IDs: 2467232, 2467234

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.2	99.5	P/P	90 - 110
Total-P	98.8	98.0	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A124304
Included Lab Sample IDs: 2467243

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	95.3	95.0	P/P	90 - 110
Iron	98.4	98.1	P/P	90 - 110
Magnesium	96.6	96.9	P/P	90 - 110
Tin	95.5	94.9	P/P	90 - 110
Titanium	98.7	98.3	P/P	90 - 110
Vanadium	97.5	97.8	P/P	90 - 110
Zinc	93.0	92.3	P/P	90 - 110

Reference Method: SM 2320 B-2011
Run ID: A124320
Included Lab Sample IDs: 2467233

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
-----------	---------	---------	------------	----------------

Quality Assurance Report

Calibration Verification

Reference Method: SM 2320 B-2011
Run ID: A124320
Included Lab Sample IDs: 2467233

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	94.3	98.1	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A124344
Included Lab Sample IDs: 2467233

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	105	105	P/P	90 - 110
Sulfate	103	103	P/P	90 - 110
Sulfate	107	106	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A124393
Included Lab Sample IDs: 2467243

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Potassium	104	104	P/P	90 - 110
Sodium	99.8	101	P/P	90 - 110
Strontium	102	102	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A124439
Included Lab Sample IDs: 2467231

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

Reference Method: SM 4500-F- C-2011
Run ID: A124490
Included Lab Sample IDs: 2467231

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

* Pass/Fail determinations are made for each bracketing calibration verification check.
Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.
Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			Precision SMP	MS
			LCS				
DEP SOP: NU-094-1	Color (true)	96.1				7.58	
	Color (true)	98.1				2.78	
EPA 180.1 Rev. 2.0	Turbidity	102				3.19	
EPA 200.7 Rev. 4.4	Calcium	109	106	109			0.0995
	Calcium	94.7					0.470
	Iron	114	114	113	114		0.788
	Iron	100	95.9	97.7			1.54
	Magnesium	108	106	113			0.136
	Magnesium	95.6					2.13
	Potassium	102	102	101			0.0867
	Potassium	102					1.13
	Sodium	104	103	104			0.0566
	Sodium	101					1.36
	Strontium	97.1	95.0	94.4	95.8		0.606
	Strontium	100					0.854
	Tin	97.4	94.0	93.1	94.8		1.01
	Tin	96.2	90.4	86.6			4.27
	Titanium	103	102	99.1	99.3		2.99
	Titanium	101	73.4	81.7			6.61
	Vanadium	101	101	99.6	102		0.921
	Vanadium	98.2	102	104			2.61
	Zinc	96.7	94.2	93.4	97.6		0.762
	Zinc	92.1	92.1	92.0			0.102
EPA 200.8 Rev. 5.4	Aluminum	101	100	102	102		1.57
	Aluminum	106	116	112			2.55
	Antimony	100	104	102	102		1.25
	Antimony	103	107	105			1.77
	Arsenic	103	104	105	102		0.526
	Arsenic	97.8	104	103			0.585
	Barium	101	104	102	102		1.45
	Barium	103	106	104			1.69
	Beryllium	97.2	97.5	97.8	97.4		0.325
	Beryllium	90.8	90.9	89.3			1.71
	Boron	105	103	105	104		1.43
	Boron	112					2.41
	Cadmium	99.4	102	102	103		0.132
	Cadmium	102	101	95.5			5.25
	Chromium	104	105	104	104		1.02
	Chromium	105	105	105			0.0066
	Cobalt	102	102	103	102		0.183
	Cobalt	98.7	102	99.7			2.37
	Copper	102	102	102	101		0.220
	Copper	97.4	101	99.8			1.58
	Lead	95.8	96.9	96.9	98.1		0.0010
	Lead	97.7	105	103			1.34
	Manganese	103	104	105	104		0.384
	Manganese	103	102	100			1.31
	Molybdenum	99.5	101	102	103		0.972
	Molybdenum	99.3	112	110			1.75
	Nickel	102	103	104	103		0.816
	Nickel	97.9	99.2	99.8			0.521
	Selenium	104	103	104	103		0.532
	Selenium	102	105	104			1.17
	Silver	104	103	102	104		1.08

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			Precision	MS
			LCS	SMP	MS		
EPA 200.8 Rev. 5.4	Silver	98.9	88.6	87.3			1.48
	Thallium	101	104	104	104		0.0100
	Thallium	101	106	106			0.649
EPA 300.0 Rev. 2.1	Chloride	108	93.7	95.4		3.03	
	Chloride	105	103	105		0.947	
	Sulfate	110	108			3.45	
	Sulfate	106	90.7	94.0		2.26	
EPA 350.1 Rev. 2.0	Ammonia-N	94.2	102	103			1.17
	Ammonia-N	94.8	96.0	96.2			0.190
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103	102	104			2.18
	Kjeldahl Nitrogen	103	108	101			5.11
EPA 353.2 Rev. 2.0	NO2NO3-N	103	102	104			1.45
	NO2NO3-N	102	101	102			0.755
EPA 365.1 Rev. 2.0	Total-P	105	97.0	95.0			2.03
	Total-P	100	105	101			3.37
EPA 8321B	2,4-D	70.8	59.3	61.4			3.29
	2,4,5-T	68.5	55.1	54.3			1.48
	Acesulfame K	116	133	139			3.89
	Acetaminophen	77.6	80.1	87.4			8.66
	Acetamiprid	69.0	59.1	66.0			11.0
	Afidopyropen	60.2	60.4	67.2			10.6
	AMPA	106	106	106			0.403
	Bentazon	68.7					1.19
	Benzovindiflupyr	77.5	75.6	86.2			13.0
	Carbamazepine	73.1	62.2	65.6			5.32
	Clothianidin	79.6	78.7	79.5			0.996
	Dinotefuran	89.3	81.1	91.2			11.8
	Diuron	69.4	56.0	60.5			5.78
	Endothall	88.2	98.8	99.3			0.473
	Fenuron	83.7	99.5	102			2.05
	Fluridone	80.3					5.45
	Glufosinate	101	101	104			3.51
	Glyphosate	97.0	100	103			1.27
	Hydrocodone	85.8	68.7	74.3			7.90
	Ibuprofen	78.9	90.8	108			17.6
	Imazapyr	69.9					1.24
	Imidacloprid	79.9	96.9	108			10.3
	Linuron	73.3	61.3	64.9			5.73
	Mandestrobin	73.7	74.6	80.4			7.46
	MCPP	65.1	61.9	69.9			12.1
	Naproxen	77.8	134	114			16.6
	Primidone	70.0	68.4	78.2			13.4
	Pyraclostrobin	74.8	76.7	89.4			15.4
	Silvex	56.5	55.5	56.6			2.08
	Sucralose	105					3.64
	Thiamethoxam	85.8	75.5	84.9			11.7
	Tolfenpyrad	49.0	46.7	57.9			21.4
	Triclopyr	66.4	53.3	53.8			0.836
SM 2320 B-2011	Total Alkalinity	95.7				0.591	
	Total Alkalinity	99.4				0.205	
SM 2540 C-2015	TDS	95.6				7.14	
SM 2540 D-2015	TSS	108					
SM 4500-F- C-2011	Fluoride	104	107	107			0.0
	Fluoride	102					0.940

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS	MS		
SM 5310 B-2014	Organic Carbon	97.6	100	99.9		0.300

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2467231, 2467233
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2467231, 2467233
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2467243, 2467244
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2467243, 2467244
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2467231, 2467233
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2467231, 2467233
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2467232, 2467234
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2467232, 2467234
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2467232, 2467234
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2467232, 2467234
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2467241, 2467242
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2467231, 2467233
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2467243, 2467244
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2467231, 2467233
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2467231, 2467233
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2467231, 2467233
SM 5310 B-2014	Nonpurgeable Organic Carbon in aqueous matrices	2467232, 2467234

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	02/08/2024			02/08/2024 15:24	Anna M. Plaviak	2467233
	02/08/2024			02/08/2024 15:48	Anna M. Plaviak	2467231
EPA 180.1 Rev. 2.0	02/08/2024			02/08/2024 14:01	Dipa Joshi	2467231
	02/08/2024			02/08/2024 14:03	Dipa Joshi	2467233
EPA 200.7 Rev. 4.4	02/08/2024	02/09/2024 12:50	George D Taylor	02/14/2024 15:55	Chase Roberts	2467244
	02/08/2024	02/12/2024 12:55	George D Taylor	02/21/2024 00:12	McKinley C Carter	2467243
	02/08/2024	02/12/2024 12:55	George D Taylor	02/21/2024 00:19	McKinley C Carter	2467243
	02/08/2024	02/12/2024 12:55	George D Taylor	02/26/2024 15:13	Chase Roberts	2467243
	02/08/2024	02/12/2024 12:55	George D Taylor	02/26/2024 15:18	Chase Roberts	2467243
EPA 200.8 Rev. 5.4	02/08/2024	02/12/2024 12:55	George D Taylor	02/26/2024 15:32	Chase Roberts	2467243
	02/08/2024	02/09/2024 12:50	George D Taylor	02/13/2024 17:58	Emily M Philpot	2467244
	02/08/2024	02/12/2024 12:55	George D Taylor	02/19/2024 17:04	Emily M Philpot	2467243
	02/08/2024	02/12/2024 12:55	George D Taylor	02/19/2024 18:49	Emily M Philpot	2467243
	02/08/2024			02/20/2024 03:34	James L Waggerby	2467233
EPA 300.0 Rev. 2.1	02/08/2024			02/22/2024 15:23	Samantha L Bates	2467231
	02/08/2024			02/22/2024 15:38	Samantha L Bates	2467233
	02/08/2024			02/27/2024 17:30	James L Waggerby	2467231
	02/08/2024			02/09/2024 12:16	Kenneth H Lee	2467232
EPA 350.1 Rev. 2.0	02/08/2024			02/09/2024 12:32	Kenneth H Lee	2467234
	02/08/2024	02/12/2024 13:17	Ping Hua	02/13/2024 11:52	Ping Hua	2467232
EPA 351.2 Rev. 2.0	02/08/2024	02/12/2024 15:22	Simonne.V. Calhoun	02/15/2024 10:44	Samantha L Bates	2467234
EPA 353.2 Rev. 2.0	02/08/2024			02/09/2024 13:57	Fadila Guebre	2467232
	02/08/2024			02/12/2024 13:56	Fadila Guebre	2467234
EPA 365.1 Rev. 2.0	02/08/2024	02/13/2024 14:28	Adam P Silver	02/20/2024 14:10	Simonne.V. Calhoun	2467232
	02/08/2024	02/13/2024 14:28	Adam P Silver	02/20/2024 14:54	Simonne.V. Calhoun	2467234
EPA 8321B	02/08/2024	02/09/2024 08:00	Tae K Lee	02/09/2024 13:06	Tae K Lee	2467241
	02/08/2024	02/09/2024 08:00	Tae K Lee	02/09/2024 13:20	Tae K Lee	2467242
	02/08/2024	02/09/2024 08:00	Tae K Lee	02/09/2024 16:57	Tae K Lee	2467241
	02/08/2024	02/09/2024 08:00	Tae K Lee	02/09/2024 17:11	Tae K Lee	2467242
	02/08/2024	02/09/2024 08:00	Tae K Lee	02/09/2024 18:07	Tae K Lee	2467241
	02/08/2024	02/13/2024 09:00	Hoor Shaik	02/13/2024 21:20	Juyoung Kim	2467241
	02/08/2024	02/13/2024 09:00	Hoor Shaik	02/13/2024 21:38	Juyoung Kim	2467242
	02/08/2024			02/17/2024 01:26	Dale L. Simmons	2467231
SM 2320 B-2011	02/08/2024			02/20/2024 23:49	Dale L. Simmons	2467233
SM 2340 B-2011	02/08/2024			02/14/2024 15:55	Chase Roberts	2467244
	02/08/2024			02/21/2024 00:19	McKinley C Carter	2467243
SM 2540 C-2015	02/08/2024			02/12/2024 15:22	Yijie Li	2467231, 2467233
SM 2540 D-2015	02/08/2024			02/12/2024 15:22	Yijie Li	2467231, 2467233
SM 4500-F- C-2011	02/08/2024			02/17/2024 01:36	Dale L. Simmons	2467233
	02/08/2024			03/01/2024 00:38	Dale L. Simmons	2467231

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 5310 B-2014	02/08/2024			02/13/2024 01:57	Kenneth H Lee	2467232
	02/08/2024			02/13/2024 02:11	Kenneth H Lee	2467234