

Chemical Analysis Report

NE-DIST-2019-09-21-01

Florida Department of Environmental Protection
Central Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

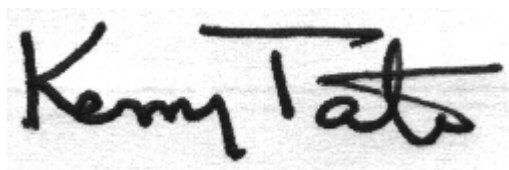
Event Description: **Bmap 2**
Request ID: **RQ-2019-09-16-15**
Customer: **NE-DIST**
Project ID: **SMP**

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
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Phone (850) 245-8085

Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 09-OCT-2019 11:37

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line above the first name.

NON-CONFORMANCE REPORT INCLUDED

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: TROUT R @ DINSMORE BOAT RAMP DOCK
NR US 1**

Collection Date/Time: 09/19/2019 09:20

Field ID: 20030123

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2121604	EPA 180.1 Rev. 2.0	Turbidity	3.5	Q	NTU	P371236	
	EPA 300.0	Bromide	8.6		mg Br/L	P371215	
	SM 2320 B-97	Total Alkalinity	69		mg CaCO3/L	P371528	
	SM 2540 D-97	TSS	6	I	mg/L	P371586	
	SM 4500 F-C-97	Fluoride	0.22		mg F/L	P371532	
2121605	EPA 350.1 Rev. 2.0	Ammonia-N	0.073		mg N/L	P371690	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P371444	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.040		mg N/L	P371221	
	EPA 365.1 Rev. 2.0	Total-P	0.14		mg P/L	P371312	
	SM 5310 B-00	Organic Carbon	22		mg C/L	P371371	
2121606	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.088	Q	mg P/L	P371241	
2121624	EPA 8321B	2,4-D	0.0082		ug/L	P371132	
		Acesulfame K**	0.13	I	ug/L	P371101	
		AMPA**	2.0	I	ug/L	P371101	
		Sucralose**	0.28		ug/L	P371101	
		Acetaminophen**	0.0080	U	ug/L	P371132	
		Acetamiprid**	0.0020	U	ug/L	P371132	
		Endothall**	0.25	U	ug/L	P371101	
		Glufosinate**	1.0	U	ug/L	P371101	
		Glyphosate**	1.0	U	ug/L	P371101	
		Afidopyropen**	0.0020	UJ	ug/L	P371132	
		Bentazon	0.0061		ug/L	P371132	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P371132	
		Carbamazepine**	8.0E-04	U	ug/L	P371132	
		Clothianidin**	0.0020	U	ug/L	P371132	
		Dinotefuran**	0.0020	U	ug/L	P371132	
		Diuron	0.0044	I	ug/L	P371132	
		Fenuron	0.016	U	ug/L	P371132	
		Fluridone**	0.0061		ug/L	P371132	
		Imazapyr**	0.19		ug/L	P371132	
		Hydrocodone**	0.0020	U	ug/L	P371132	
		Ibuprofen**	0.020	U	ug/L	P371132	
		Imidacloprid	0.013		ug/L	P371132	MS
		Linuron	0.0040	U	ug/L	P371132	
		Mandestrobin**	0.0020	UJ	ug/L	P371132	
		MCP	0.0021	I	ug/L	P371132	MS
		Naproxen**	0.0080	U	ug/L	P371132	
		Primidone**	0.0040	U	ug/L	P371132	
		Pyraclostrobin**	0.0020	U	ug/L	P371132	
		Thiamethoxam**	0.0020	U	ug/L	P371132	
		Tolfenpyrad**	0.0020	U	ug/L	P371132	
		Triclopyr**	0.0040	U	ug/L	P371132	

Field ID: 20030123

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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Ref. Method and Comment:

EPA 180.1 Rev. 2.0: The sample expired prior to receipt.

EPA 365.1 Rev. 2.0 dissolved: O-Phosphate-P: The sample expired prior to receipt.

EPA 8321B: J - second source check standards for some analytes were not available for analysis. MS accuracy for fluridone and imazapyr could not be assessed due to high concentration of parameter in the spiked sample. MS accuracy and precision for bentazon could not be assessed due to high concentration of parameter in the spiked sample.

EPA 8321B: MDL for some parameters elevated due to matrix interference.

Sample Location: TROUT RIVER AT OLD KINGS RD

Collection Date/Time: 09/19/2019 09:45

Field ID: 20030753

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2121607	EPA 180.1 Rev. 2.0	Turbidity	3.0	Q	NTU	P371236	
	EPA 300.0 Rev. 2.1	Chloride	20		mg Cl/L	P371225	
		Sulfate	5.4		mg SO4/L	P371228	
	SM 2120 B	Color (true)	350	Q	PCU	P371249	
	SM 2320 B-97	Total Alkalinity	39		mg CaCO3/L	P371528	
	SM 2540 C-97	TDS	166		mg/L	P371615	
	SM 2540 D-97	TSS	2	I	mg/L	P371582	
	SM 4500 F-C-97	Fluoride	0.067	I	mg F/L	P371532	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.030		mg N/L	P371691	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P371213	
2121608	EPA 353.2 Rev. 2.0	NO2NO3-N	0.069		mg N/L	P371466	
	EPA 365.1 Rev. 2.0	Total-P	0.14		mg P/L	P371315	
	SM 5310 B-00	Organic Carbon	35		mg C/L	P371371	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.090	Q	mg P/L	P371242	
	dissolved						

Ref. Method and Comment:

EPA 180.1 Rev. 2.0: The sample expired prior to receipt.

SM 2120 B: The sample expired prior to receipt.

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 365.1 Rev. 2.0 dissolved: O-Phosphate-P: The sample expired prior to receipt.

Sample Location: MONCRIEF CR AT MONCRIEF ROAD

Collection Date/Time: 09/19/2019 10:50

Field ID: 20030726

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2121601	EPA 180.1 Rev. 2.0	Turbidity	3.2	Q	NTU	P371236	
	EPA 300.0 Rev. 2.1	Chloride	15		mg Cl/L	P371225	
		Sulfate	26		mg SO4/L	P371228	
	SM 2120 B	Color (true)	23	Q	PCU	P371249	
	SM 2320 B-97	Total Alkalinity	117		mg CaCO3/L	P371528	
	SM 2540 C-97	TDS	184		mg/L	P371615	
	SM 2540 D-97	TSS	3	I	mg/L	P371582	
	SM 4500 F-C-97	Fluoride	0.13		mg F/L	P371532	
2121602	EPA 350.1 Rev. 2.0	Ammonia-N	0.073		mg N/L	P371747	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.65		mg N/L	P371213	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.091		mg N/L	P371466	
	EPA 365.1 Rev. 2.0	Total-P	0.077		mg P/L	P371315	
	SM 5310 B-00	Organic Carbon	6.8		mg C/L	P371371	
2121603	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.029	Q	mg P/L	P371242	
2121626	EPA 200.7 Rev. 4.4	Barium	43.7		ug/L	P371324	
		Calcium	46.3		mg/L	P371324	
		Iron	480		ug/L	P371324	
		Magnesium	6.27		mg/L	P371324	
		Potassium	2.5		mg/L	P371324	
		Sodium	12.3		mg/L	P371324	
		Zinc	7.3	I	ug/L	P371324	
	EPA 200.8 Rev. 5.4	Aluminum	19	I	ug/L	P371324	
		Antimony	0.20		ug/L	P371324	
		Arsenic	1.45		ug/L	P371324	
		Boron**	53.4		ug/L	P371324	
		Cadmium	0.020	U	ug/L	P371324	
		Chromium	0.40	U	ug/L	P371324	
		Copper	1.06		ug/L	P371324	
		Lead	0.49		ug/L	P371324	
		Nickel	0.68	I	ug/L	P371324	
		Selenium	0.20	U	ug/L	P371324	
		Silver	0.010	U	ug/L	P371324	
		Thallium	0.10	U	ug/L	P371324	

Ref. Method and Comment:

EPA 180.1 Rev. 2.0: The sample expired upon receipt.

SM 2120 B: The sample expired upon receipt.

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 365.1 Rev. 2.0 dissolved: O-Phosphate-P: The sample expired upon receipt.

Sample Location: BIG FISHWEIR CR SF @ HAMILTON ST

Collection Date/Time: 09/19/2019 11:55

Field ID: 20030801

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2121598	EPA 180.1 Rev. 2.0	Turbidity	9.6	AQ	NTU	P371236	
	EPA 300.0 Rev. 2.1	Chloride	370		mg Cl/L	P371225	
		Sulfate	70		mg SO4/L	P371228	
	SM 2120 B	Color (true)	33	Q	PCU	P371249	
	SM 2320 B-97	Total Alkalinity	137		mg CaCO3/L	P371528	
	SM 2540 C-97	TDS	818		mg/L	P371615	
	SM 2540 D-97	TSS	8	I	mg/L	P371582	
	SM 4500 F-C-97	Fluoride	0.16		mg F/L	P371532	
2121599	EPA 350.1 Rev. 2.0	Ammonia-N	0.080		mg N/L	P371597	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.84		mg N/L	P371213	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.21		mg N/L	P371466	
	EPA 365.1 Rev. 2.0	Total-P	0.19		mg P/L	P371315	
	SM 5310 B-00	Organic Carbon	9.3		mg C/L	P371371	
2121600	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.083	Q	mg P/L	P371242	
2121623	EPA 8321B	2,4-D	0.12		ug/L	P371132	
		Acesulfame K**	0.40		ug/L	P371101	
		AMPA**	0.68		ug/L	P371101	
		Sucralose**	0.69		ug/L	P371101	
		Acetaminophen**	0.062		ug/L	P371132	
		Acetamiprid**	0.0020	U	ug/L	P371132	
		Endothal**	0.25	U	ug/L	P371101	
		Glufosinate**	0.10	U	ug/L	P371101	
		Glyphosate**	71		ug/L	P371101	
		Afidopyropen**	0.0020	UJ	ug/L	P371132	
		Bentazon	0.0081		ug/L	P371132	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P371132	
		Carbamazepine**	0.0017	I	ug/L	P371132	
		Clothianidin**	0.0020	U	ug/L	P371132	
		Dinotefuran**	0.0037	I	ug/L	P371132	
		Diuron	0.019		ug/L	P371132	
		Fenuron	0.016	U	ug/L	P371132	
		Fluridone**	8.0E-04	U	ug/L	P371132	
		Imazapyr**	0.11		ug/L	P371132	
		Hydrocodone**	0.0020	U	ug/L	P371132	
		Ibuprofen**	0.020	U	ug/L	P371132	
		Imidacloprid	0.078		ug/L	P371132	MS
		Linuron	0.0040	U	ug/L	P371132	
		Mandestrobin**	0.0020	UJ	ug/L	P371132	
		MCP	0.031		ug/L	P371132	MS
		Naproxen**	0.0080	U	ug/L	P371132	
		Primidone**	0.0065	I	ug/L	P371132	
		Pyraclostrobin**	0.0020	U	ug/L	P371132	
		Thiamethoxam**	0.0033	I	ug/L	P371132	

Field ID: 20030801

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2121623	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P371132	
		Triclopyr**	0.0040	U	ug/L	P371132	

Ref. Method and Comment:

EPA 180.1 Rev. 2.0: The sample expired upon receipt.

SM 2120 B: The sample expired upon receipt.

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 365.1 Rev. 2.0 dissolved: O-Phosphate-P: The sample expired upon receipt.

EPA 8321B: J - second source check standards for some analytes were not available for analysis. MS accuracy for fluridone and imazapyr could not be assessed due to high concentration of parameter in the spiked sample. MS accuracy and precision for bentazon could not be assessed due to high concentration of parameter in the spiked sample.

EPA 8321B: Some MDLs are elevated due to required dilution of sample.

Sample Location: LITTLE FISHWEIR AT OAK ST

Collection Date/Time: 09/19/2019 11:30

Field ID: 20030953

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2121625	EPA 8321B	2,4-D	0.024		ug/L	P371132	
		Acesulfame K**	0.22	I	ug/L	P371101	
		AMPA**	0.38	I	ug/L	P371101	
		Sucralose**	0.11		ug/L	P371101	
		Acetaminophen**	0.083		ug/L	P371132	
		Acetamiprid**	0.0020	U	ug/L	P371132	
		Endothall**	0.25	U	ug/L	P371101	
		Glufosinate**	0.10	U	ug/L	P371101	
		Glyphosate**	1.8		ug/L	P371101	
		Afidopyropen**	0.0020	UJ	ug/L	P371132	
		Bentazon	0.011		ug/L	P371132	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P371132	
		Carbamazepine**	8.0E-04	U	ug/L	P371132	
		Clothianidin**	0.0020	U	ug/L	P371132	
		Dinotefuran**	0.0020	U	ug/L	P371132	
		Diuron	0.012		ug/L	P371132	
		Fenuron	0.016	U	ug/L	P371132	
		Fluridone**	8.0E-04	U	ug/L	P371132	
		Imazapyr**	0.068		ug/L	P371132	
		Hydrocodone**	0.0020	U	ug/L	P371132	
		Ibuprofen**	0.020	U	ug/L	P371132	
		Imidacloprid	0.19		ug/L	P371132	MS
		Linuron	0.0040	U	ug/L	P371132	
		Mandestrobin**	0.0020	UJ	ug/L	P371132	
		MCPP	0.0096		ug/L	P371132	MS
		Naproxen**	0.0080	U	ug/L	P371132	
		Primidone**	0.0040	U	ug/L	P371132	
		Pyraclostrobin**	0.0020	U	ug/L	P371132	
		Thiamethoxam**	0.0065	I	ug/L	P371132	
		Tolfenpyrad**	0.0020	U	ug/L	P371132	
		Triclopyr**	0.0040	U	ug/L	P371132	

Ref. Method and Comment:

EPA 8321B: J - second source check standards for some analytes were not available for analysis. MS accuracy for fluridone and imazapyr could not be assessed due to high concentration of parameter in the spiked sample. MS accuracy and precision for bentazon could not be assessed due to high concentration of parameter in the spiked sample.

Non-Conformance Report

NCR ID: 7918

Event(s)

NE-DIST-2019-09-21-01

Job(s)

Sample(s)

Test(s)

NCR Type: SHIPPING/RECEIVING

NCR Category: Samples arrived late

Observation: Samples arrived one or more days late, samples received within the acceptable temperature range.

Resolution: Customer contacted, email correspondence attached to sample submittal forms.

Authorized by/Date: Joshua Ayres 9/30/2019

The Non-Conformance Report details exceptions or problems encountered with the events/jobs/samples/test.
Please address questions to:

Chemistry	Colin Wright	(850) 245-8085
Biology	Cheryl Swanson	(850) 245-8177

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P371236

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P371324

Component	Result	Code	Units
Barium	1.0	U	ug/L
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
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P371324

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	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
Batch ID: P371215

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P371225

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P371228

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P371597

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P371690

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P371691

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P371747

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P371213

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P371444

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P371221

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P371466

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P371312

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: P371315

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P371241

Component	Result	Code	Units
O-Phosphate-P	0.004	U	mg P/L

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P371242

Component	Result	Code	Units
O-Phosphate-P	0.004	U	mg P/L

Reference Method: EPA 8321B
Batch ID: P371101

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: P371132

Component	Result	Code	Units
2,4-D	0.0020	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	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	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
Thiamethoxam	0.0020	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P371132

Component	Result	Code	Units
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2120 B
Batch ID: P371249

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P371528

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

Reference Method: SM 2540 C-97
Batch ID: P371615

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P371582

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P371586

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P371532

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P371371

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P371324

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	103		P	85 - 115
Calcium	107		P	85 - 115
Iron	104		P	85 - 115
Magnesium	111		P	85 - 115
Potassium	102		P	85 - 115
Sodium	107		P	85 - 115
Zinc	102		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P371324

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	97.1		P	85 - 115
Antimony	93.2		P	85 - 115
Arsenic	101		P	85 - 115
Boron	99.0		P	85 - 115
Cadmium	97.9		P	85 - 115
Chromium	97.3		P	85 - 115
Copper	99.4		P	85 - 115
Lead	93.8		P	85 - 115
Nickel	99.8		P	85 - 115
Selenium	97.0		P	85 - 115
Silver	98.2		P	85 - 115
Thallium	98.6		P	85 - 115

Reference Method: EPA 300.0
Batch ID: P371215

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Bromide	97.1		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P371225

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P371228

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P371597

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	95.3		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P371690

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P371691

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P371747

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P371213

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: P371444

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P371221

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P371466

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P371312

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P371315

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P371241

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P371242

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

Reference Method: EPA 8321B
Batch ID: P371101

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	126		P	40 - 150
AMPA	89.5		P	40 - 150
Endothall	83.5		P	40 - 150
Glufosinate	88.1		P	40 - 150
Glyphosate	77.0		P	40 - 140
Sucralose	109		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P371132

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	131		P	40 - 160
Acetaminophen	87.5		P	30 - 160
Acetamiprid	95.9		P	40 - 160
Afidopyropen	103		P	40 - 160
Bentazon	99.0		P	30 - 160
Benzovindiflupyr	89.4		P	40 - 160
Carbamazepine	119		P	40 - 160
Clothianidin	90.4		P	40 - 160
Dinotefuran	93.3		P	40 - 160
Diuron	91.3		P	40 - 160
Fenuron	101		P	40 - 160
Fluridone	107		P	40 - 160
Hydrocodone	96.4		P	40 - 160
Ibuprofen	84.8		P	30 - 160
Imazapyr	94.3		P	40 - 160
Imidacloprid	116		P	40 - 160
Linuron	76.1		P	40 - 160
Mandestrobin	93.0		P	40 - 160
MCPP	148		P	40 - 160
Naproxen	83.5		P	40 - 160
Primidone	87.3		P	40 - 160
Pyraclostrobin	84.8		P	30 - 160
Thiamethoxam	103		P	40 - 160
Tolfenpyrad	61.7		P	40 - 160
Triclopyr	116		P	30 - 160

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2120 B
Batch ID: P371249

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	102		P	85 - 115

Reference Method: SM 2320 B-97
Batch ID: P371528

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	98 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P371532

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.8		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P371371

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	103		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P371324

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121650	Barium	97.9		P	80 - 120
2121650	Calcium	103		P	80 - 120
2121650	Iron	101		P	80 - 120
2121650	Magnesium	105		P	80 - 120
2121650	Potassium	97.2		P	80 - 120
2121650	Sodium	100		P	80 - 120
2121650	Zinc	99.1		P	80 - 120
2121733	Barium	101	101	P/P	80 - 120
2121733	Calcium	106	107	P/P	80 - 120
2121733	Iron	103	104	P/P	80 - 120
2121733	Magnesium	110	111	P/P	80 - 120
2121733	Potassium	109	108	P/P	80 - 120
2121733	Sodium	107	108	P/P	80 - 120
2121733	Zinc	99.1	99.6	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P371324

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121650	Aluminum	98.2		P	80 - 120
2121650	Antimony	94.5		P	80 - 120
2121650	Arsenic	101		P	80 - 120
2121650	Boron	99.6		P	80 - 120
2121650	Cadmium	97.8		P	80 - 120
2121650	Chromium	96.9		P	80 - 120
2121650	Copper	101		P	80 - 120
2121650	Lead	95.5		P	80 - 120
2121650	Nickel	100		P	80 - 120
2121650	Selenium	98.6		P	80 - 120
2121650	Silver	98.4		P	80 - 120
2121650	Thallium	100		P	80 - 120
2121733	Aluminum	99.0	97.9	P/P	80 - 120
2121733	Antimony	94.0	94.9	P/P	80 - 120
2121733	Arsenic	101	99.8	P/P	80 - 120
2121733	Boron	98.6	97.3	P/P	80 - 120
2121733	Cadmium	97.1	96.6	P/P	80 - 120
2121733	Chromium	97.5	95.7	P/P	80 - 120
2121733	Copper	101	100	P/P	80 - 120
2121733	Lead	95.3	94.4	P/P	80 - 120
2121733	Nickel	99.6	99.2	P/P	80 - 120
2121733	Selenium	98.0	97.3	P/P	80 - 120
2121733	Silver	97.8	97.3	P/P	80 - 120
2121733	Thallium	100	99.5	P/P	80 - 120

Reference Method: EPA 300.0
Batch ID: P371215

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121387	Bromide	96.0	95.9	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P371225

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121454	Chloride	101	102	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P371228

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121454	Sulfate	101	102	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P371597

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121455	Ammonia-N	96.1	96.2	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P371690

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121955	Ammonia-N	101	100	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P371691

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121637	Ammonia-N	96.9	97.4	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P371747

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2122403	Ammonia-N	95.1	96.3	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P371213

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121602	Kjeldahl Nitrogen	95.0	104	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P371444

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121246	Kjeldahl Nitrogen	101	99.7	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P371221

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121392	NO2NO3-N	104	102	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P371466

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121599	NO2NO3-N	96.2	97.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P371312

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121392	Total-P	95.4	91.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P371315

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121427	Total-P	98.1	99.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P371241

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121966	O-Phosphate-P	96.1	96.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P371242

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121725	O-Phosphate-P	96.0	97.0	P/P	90 - 110

Reference Method: EPA 8321B
 Batch ID: P371101

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121020	Acesulfame K	134	134	P/P	40 - 150
2121020	AMPA	46.3	49.7	P/P	40 - 150
2121020	Endothall	81.1	82.8	P/P	40 - 150
2121020	Glufosinate	81.2	80.4	P/P	40 - 150
2121020	Glyphosate	62.9	68.9	P/P	40 - 140
2121020	Sucralose	111	112	P/P	40 - 150

Reference Method: EPA 8321B
 Batch ID: P371132

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121419	2,4-D	132	124	P/P	40 - 160
2121419	Acetaminophen	71.9	75.5	P/P	30 - 160
2121419	Acetamiprid	110	112	P/P	40 - 160
2121419	Afidopyropen	85.6	112	P/P	40 - 160
2121419	Benzovindiflupyr	99.9	98.9	P/P	40 - 160
2121419	Carbamazepine	104	105	P/P	40 - 160
2121419	Clothianidin	98.5	86.7	P/P	40 - 160
2121419	Dinotefuran	111	111	P/P	40 - 160
2121419	Diuron	83.5	82.0	P/P	40 - 160
2121419	Fenuron	83.4	84.5	P/P	40 - 160
2121419	Hydrocodone	93.2	97.4	P/P	40 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P371132

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121419	Ibuprofen	89.8	90.7	P/P	30 - 160
2121419	Imidacloprid	182	192	F/F	40 - 160
2121419	Linuron	75.7	76.7	P/P	40 - 160
2121419	Mandestrobin	96.4	98.6	P/P	40 - 160
2121419	MCPP	162	168	F/F	40 - 160
2121419	Naproxen	90.4	102	P/P	40 - 160
2121419	Primidone	97.0	99.9	P/P	40 - 160
2121419	Pyraclostrobin	92.1	91.6	P/P	30 - 160
2121419	Thiamethoxam	142	143	P/P	40 - 160
2121419	Tolfenpyrad	71.0	76.6	P/P	40 - 160
2121419	Triclopyr	105	131	P/P	30 - 160

Reference Method: SM 4500 F-C-97
Batch ID: P371532

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121762	Fluoride	97.2	95.5	P/P	89 - 106

Reference Method: SM 5310 B-00
Batch ID: P371371

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121755	Organic Carbon	102	102	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P371236

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121598	Turbidity	8.99	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P371324

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121733	Barium	0.0474	Spike	P	0 - 20
2121733	Calcium	0.844	Spike	P	0 - 20
2121733	Iron	0.769	Spike	P	0 - 20
2121733	Magnesium	0.671	Spike	P	0 - 20
2121733	Potassium	0.544	Spike	P	0 - 20
2121733	Sodium	0.685	Spike	P	0 - 20
2121733	Zinc	0.498	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P371324

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121733	Aluminum	1.09	Spike	P	0 - 20
2121733	Antimony	0.928	Spike	P	0 - 20
2121733	Arsenic	1.57	Spike	P	0 - 20
2121733	Boron	1.23	Spike	P	0 - 20
2121733	Cadmium	0.489	Spike	P	0 - 20
2121733	Chromium	1.91	Spike	P	0 - 20
2121733	Copper	0.921	Spike	P	0 - 20
2121733	Lead	0.975	Spike	P	0 - 20
2121733	Nickel	0.469	Spike	P	0 - 20
2121733	Selenium	0.739	Spike	P	0 - 20
2121733	Silver	0.446	Spike	P	0 - 20
2121733	Thallium	0.521	Spike	P	0 - 20

Reference Method: EPA 300.0
Batch ID: P371215

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121387	Bromide	0.0178	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P371225

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121454	Chloride	0.783	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P371228

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121454	Sulfate	0.892	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P371597

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121455	Ammonia-N	0.107	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P371690

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121955	Ammonia-N	0.848	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P371691

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121637	Ammonia-N	0.474	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P371747

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2122403	Ammonia-N	1.22	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P371213

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121602	Kjeldahl Nitrogen	6.05	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P371444

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121246	Kjeldahl Nitrogen	0.654	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P371221

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121392	NO2NO3-N	0.682	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P371466

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121599	NO2NO3-N	0.997	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P371312

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121392	Total-P	2.91	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P371315

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121427	Total-P	1.73	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P371241

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121966	O-Phosphate-P	0.795	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P371242

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121725	O-Phosphate-P	0.849	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P371101

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121020	Acesulfame K	0.412	Spike	P	0 - 30
2121020	AMPA	4.62	Spike	P	0 - 30
2121020	Endothall	2.08	Spike	P	0 - 30
2121020	Glufosinate	1.02	Spike	P	0 - 30
2121020	Glyphosate	7.20	Spike	P	0 - 30
2121020	Sucralose	0.217	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P371132

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121419	2,4-D	4.44	Spike	P	0 - 30
2121419	Acetaminophen	4.87	Spike	P	0 - 30
2121419	Acetamiprid	1.41	Spike	P	0 - 30
2121419	Afidopyropen	26.8	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P371132

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121419	Benzovindiflupyr	1.02	Spike	P	0 - 30
2121419	Carbamazepine	0.853	Spike	P	0 - 30
2121419	Clothianidin	12.3	Spike	P	0 - 30
2121419	Dinotefuran	0.235	Spike	P	0 - 30
2121419	Diuron	1.55	Spike	P	0 - 30
2121419	Fenuron	0.877	Spike	P	0 - 30
2121419	Fluridone	1.16	Spike	P	0 - 30
2121419	Hydrocodone	4.45	Spike	P	0 - 30
2121419	Ibuprofen	0.934	Spike	P	0 - 30
2121419	Imazapyr	7.44	Spike	P	0 - 30
2121419	Imidacloprid	4.37	Spike	P	0 - 30
2121419	Linuron	1.27	Spike	P	0 - 30
2121419	Mandestrobin	2.24	Spike	P	0 - 30
2121419	MCP	3.72	Spike	P	0 - 30
2121419	Naproxen	12.5	Spike	P	0 - 30
2121419	Primidone	2.63	Spike	P	0 - 30
2121419	Pyraclostrobin	0.502	Spike	P	0 - 30
2121419	Thiamethoxam	0.693	Spike	P	0 - 30
2121419	Tolfenpyrad	7.61	Spike	P	0 - 30
2121419	Triclopyr	22.6	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P371249

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121729	Color (true)	1.03	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P371528

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121762	Total Alkalinity	0.0776	Sample	P	0 - 2.8

Reference Method: SM 2540 C-97
Batch ID: P371615

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121426	TDS	2.91	Sample	P	0 - 10

Reference Method: SM 2540 D-97
Batch ID: P371586

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121387	TSS	4.35	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 4500 F-C-97
Batch ID: P371532

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121762	Fluoride	1.45	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
Batch ID: P371371

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121755	Organic Carbon	0.307	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2121623
Field Sample ID: 20030801

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	125	P	30 - 160
EPA 8321B	Acetaminophen-d4	69.1	P	30 - 160
EPA 8321B	Bentazon-d7	51.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	88.7	P	30 - 160
EPA 8321B	Diuron-d6	74.3	P	30 - 160
EPA 8321B	Endothall-d6	160	P	30 - 160
EPA 8321B	Endothall-d6	160	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	112	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	112	P	30 - 160
EPA 8321B	Ibuprofen-d3	79.6	P	30 - 160
EPA 8321B	Primidone-d5	92.0	P	30 - 160
EPA 8321B	Sucralose-d6	155	P	30 - 160
EPA 8321B	Sucralose-d6	155	P	30 - 160

Lab Sample ID: 2121624
Field Sample ID: 20030123

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	129	P	30 - 160
EPA 8321B	Acetaminophen-d4	68.1	P	30 - 160
EPA 8321B	Bentazon-d7	52.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	92.8	P	30 - 160
EPA 8321B	Diuron-d6	78.6	P	30 - 160
EPA 8321B	Endothall-d6	48.0	P	30 - 160
EPA 8321B	Endothall-d6	48.0	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	61.7	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	61.7	P	30 - 160
EPA 8321B	Ibuprofen-d3	94.4	P	30 - 160
EPA 8321B	Primidone-d5	93.0	P	30 - 160
EPA 8321B	Sucralose-d6	147	P	30 - 160
EPA 8321B	Sucralose-d6	147	P	30 - 160

Lab Sample ID: 2121625
Field Sample ID: 20030953

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	128	P	30 - 160
EPA 8321B	Acetaminophen-d4	73.0	P	30 - 160
EPA 8321B	Bentazon-d7	59.0	P	30 - 160
EPA 8321B	Carbamazepine-d10	84.3	P	30 - 160
EPA 8321B	Diuron-d6	73.9	P	30 - 160
EPA 8321B	Endothall-d6	128	P	30 - 160
EPA 8321B	Endothall-d6	128	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	107	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	107	P	30 - 160
EPA 8321B	Ibuprofen-d3	82.1	P	30 - 160
EPA 8321B	Primidone-d5	99.8	P	30 - 160
EPA 8321B	Sucralose-d6	98.4	P	30 - 160
EPA 8321B	Sucralose-d6	98.4	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0

Run ID: A94448

Included Lab Sample IDs: 2121604

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A94451

Included Lab Sample IDs: 2121605

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A94452

Included Lab Sample IDs: 2121598, 2121601, 2121607

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	102	P/P	90 - 110
Sulfate	103	104	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A94462

Included Lab Sample IDs: 2121598, 2121601, 2121604, 2121607

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A94463

Included Lab Sample IDs: 2121600, 2121603, 2121606, 2121609

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.3	101	P/P	90 - 110
O-Phosphate-P	99.6	98.3	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A94467

Included Lab Sample IDs: 2121623, 2121624, 2121625

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	121	64.2	P/P	60 - 160
Acesulfame K	97.1	121	P/P	60 - 160
Endothall	93.2	93.6	P/P	60 - 160
Endothall	93.6	112	P/P	60 - 160

Reference Method: SM 2120 B

Run ID: A94469

Included Lab Sample IDs: 2121598, 2121601, 2121607

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	103	103	P/P	90 - 115
Color (true)	99.6	102	P/P	90 - 115

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-00

Run ID: A94516

Included Lab Sample IDs: 2121599, 2121602, 2121605, 2121608

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.2	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A94517

Included Lab Sample IDs: 2121599, 2121602, 2121605, 2121608

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.7	100	P/P	90 - 110
Total-P	99.9	100	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A94522

Included Lab Sample IDs: 2121623, 2121624, 2121625

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	101	103	P/P	60 - 160
AMPA	69.2	99.4	P/P	60 - 160
AMPA	99.4	101	P/P	60 - 160
Glufosinate	111	93.2	P/P	60 - 160
Glufosinate	75.0	86.5	P/P	60 - 160
Glufosinate	86.5	111	P/P	60 - 160
Glyphosate	102	104	P/P	60 - 160
Glyphosate	104	121	P/P	60 - 160
Glyphosate	93.1	96.2	P/P	60 - 160

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A94525

Included Lab Sample IDs: 2121599, 2121602, 2121608

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

Reference Method: EPA 8321B

Run ID: A94534

Included Lab Sample IDs: 2121623, 2121624, 2121625

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	78.8	106	P/P	50 - 150
2,4-D	97.9	78.8	P/P	50 - 150
Acetaminophen	105	117	P/P	60 - 160
Acetaminophen	117	111	P/P	60 - 160
Acetamiprid	113	116	P/P	50 - 150
Acetamiprid	113	113	P/P	50 - 150
Afidopyropen	93.3	98.8	P/P	50 - 150
Afidopyropen	98.8	122	P/P	50 - 150
Bentazon	103	103	P/P	50 - 160
Bentazon	112	103	P/P	50 - 160
Benzovindiflupyr	103	111	P/P	50 - 150
Benzovindiflupyr	109	103	P/P	50 - 150
Carbamazepine	122	122	P/P	60 - 150
Carbamazepine	122	125	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A94534

Included Lab Sample IDs: 2121623, 2121624, 2121625

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Clothianidin	120	120	P/P	60 - 150
Clothianidin	94.4	120	P/P	60 - 150
Dinotefuran	104	98.4	P/P	50 - 150
Dinotefuran	96.8	104	P/P	50 - 150
Diuron	105	106	P/P	60 - 150
Diuron	106	104	P/P	60 - 150
Fenuron	108	112	P/P	60 - 150
Fenuron	112	115	P/P	60 - 150
Fluridone	109	113	P/P	60 - 160
Fluridone	111	109	P/P	60 - 160
Hydrocodone	109	113	P/P	60 - 150
Hydrocodone	113	114	P/P	60 - 150
Ibuprofen	91.5	105	P/P	50 - 160
Ibuprofen	98.2	91.5	P/P	50 - 160
Imazapyr	90.1	99.1	P/P	50 - 150
Imazapyr	94.6	90.1	P/P	50 - 150
Imidacloprid	106	110	P/P	60 - 150
Imidacloprid	95.4	106	P/P	60 - 150
Linuron	102	106	P/P	60 - 150
Linuron	108	102	P/P	60 - 150
Mandestrobin	115	117	P/P	50 - 150
Mandestrobin	117	115	P/P	50 - 150
MCPP	98.5	106	P/P	50 - 150
MCPP	99.2	98.5	P/P	50 - 150
Naproxen	109	92.9	P/P	50 - 160
Naproxen	92.9	132	P/P	50 - 160
Primidone	111	111	P/P	60 - 150
Primidone	95.7	111	P/P	60 - 150
Pyraclostrobin	107	118	P/P	60 - 150
Pyraclostrobin	108	107	P/P	60 - 150
Thiamethoxam	102	109	P/P	50 - 150
Thiamethoxam	109	113	P/P	50 - 150
Tolfenpyrad	106	114	P/P	60 - 150
Tolfenpyrad	112	106	P/P	60 - 150
Triclopyr	106	97.3	P/P	50 - 150
Triclopyr	92.2	106	P/P	50 - 150

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A94536

Included Lab Sample IDs: 2121599, 2121602, 2121608

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A94550

Included Lab Sample IDs: 2121626

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	102	103	P/P	90 - 110
Arsenic	104	104	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A94550

Included Lab Sample IDs: 2121626

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Boron	100	101	P/P	90 - 110
Cadmium	101	101	P/P	90 - 110
Chromium	100	100	P/P	90 - 110
Copper	103	103	P/P	90 - 110
Lead	98.7	99.1	P/P	90 - 110
Nickel	103	104	P/P	90 - 110
Selenium	102	103	P/P	90 - 110
Silver	98.5	98.9	P/P	90 - 110
Thallium	94.4	94.5	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A94562

Included Lab Sample IDs: 2121626

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	99.6	101	P/P	90 - 110
Calcium	103	99.3	P/P	90 - 110
Iron	102	101	P/P	90 - 110
Magnesium	102	101	P/P	90 - 110
Potassium	100	101	P/P	90 - 110
Sodium	101	100	P/P	90 - 110
Zinc	98.1	99.5	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A94582

Included Lab Sample IDs: 2121598, 2121601, 2121604, 2121607

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	104	P/P	90 - 110
Total Alkalinity	101	103	P/P	90 - 110
Total Alkalinity	103	101	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A94582

Included Lab Sample IDs: 2121598, 2121601, 2121604, 2121607

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	103	P/P	90 - 110
Fluoride	101	100	P/P	90 - 110
Fluoride	103	102	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A94586

Included Lab Sample IDs: 2121623, 2121624, 2121625

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	103	103	P/P	60 - 160
Sucralose	99.8	103	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A94590

Included Lab Sample IDs: 2121626

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Antimony	94.3	94.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A94597

Included Lab Sample IDs: 2121605

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	107	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A94610

Included Lab Sample IDs: 2121599

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.1	97.2	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A94647

Included Lab Sample IDs: 2121605, 2121608

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	101	P/P	90 - 110
Ammonia-N	96.1	97.5	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A94667

Included Lab Sample IDs: 2121602

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	96.5	95.7	P/P	90 - 110

* Pass/Fail determinations are made for each bracketing calibration verification check.

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity						8.99	
EPA 200.7 Rev. 4.4	Barium	103	97.9	101	101			0.0474
	Calcium	107	103	106	107			0.844
	Iron	104	101	103	104			0.769
	Magnesium	111	105	110	111			0.671
	Potassium	102	97.2	109	108			0.544
	Sodium	107	100	107	108			0.685
	Zinc	102	99.1	99.1	99.6			0.498
EPA 200.8 Rev. 5.4	Aluminum	97.1	98.2	99.0	97.9			1.09
	Antimony	93.2	94.5	94.0	94.9			0.928
	Arsenic	101	101	101	99.8			1.57
	Boron	99.0	99.6	98.6	97.3			1.23
	Cadmium	97.9	97.8	97.1	96.6			0.489
	Chromium	97.3	96.9	97.5	95.7			1.91
	Copper	99.4	101	101	100			0.921
	Lead	93.8	95.5	95.3	94.4			0.975
	Nickel	99.8	100	99.6	99.2			0.469
	Selenium	97.0	98.6	98.0	97.3			0.739
	Silver	98.2	97.3	98.4	97.8			0.446
	Thallium	98.6	100	100	99.5			0.521
EPA 300.0	Bromide	97.1	96.0	95.9				0.0178
EPA 300.0 Rev. 2.1	Chloride	100	101	102				0.783
	Sulfate	100	101	102				0.892
EPA 350.1 Rev. 2.0	Ammonia-N	95.3	96.1	96.2				0.107
	Ammonia-N	100	101	100				0.848
	Ammonia-N	102	96.9	97.4				0.474
	Ammonia-N	95.8	95.1	96.3				1.22
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103	95.0	104				6.05
	Kjeldahl Nitrogen	96.5	101	99.7				0.654
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	100	104	102				0.682
	NO ₂ NO ₃ -N	103	96.2	97.8				0.997
EPA 365.1 Rev. 2.0	Total-P	95.8	95.4	91.8				2.91
	Total-P	101	98.1	99.9				1.73
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.5	96.1	96.9				0.795
	O-Phosphate-P	102	96.0	97.0				0.849
EPA 8321B	2,4-D	131	132	124				4.44
	Acesulfame K	126	134	134				0.412
	Acetaminophen	87.5	71.9	75.5				4.87
	Acetamiprid	95.9	110	112				1.41
	Afidopyropen	103	85.6	112				26.8
	AMPA	89.5	46.3	49.7				4.62
	Bentazon	99.0						
	Benzovindiflupyr	89.4	99.9	98.9				1.02
	Carbamazepine	119	104	105				0.853
	Clothianidin	90.4	98.5	86.7				12.3
	Dinotefuran	93.3	111	111				0.235
	Diuron	91.3	83.5	82.0				1.55
	Endothall	83.5	81.1	82.8				2.08
	Fenuron	101	83.4	84.5				0.877
	Fluridone	107						1.16
	Glufosinate	88.1	81.2	80.4				1.02
	Glyphosate	77.0	62.9	68.9				7.20
	Hydrocodone	96.4	93.2	97.4				4.45
	Ibuprofen	84.8	89.8	90.7				0.934

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Imazapyr	94.3				7.44
	Imidacloprid	116	182	192		4.37
	Linuron	76.1	75.7	76.7		1.27
	Mandestrobin	93.0	96.4	98.6		2.24
	MCPP	148	162	168		3.72
	Naproxen	83.5	90.4	102		12.5
	Primidone	87.3	97.0	99.9		2.63
	Pyraclostrobin	84.8	92.1	91.6		0.502
	Sucralose	109	111	112		0.217
	Thiamethoxam	103	142	143		0.693
	Tolfenpyrad	61.7	71.0	76.6		7.61
	Triclopyr	116	105	131		22.6
SM 2120 B	Color (true)	102			1.03	
SM 2320 B-97	Total Alkalinity	103			0.0776	
SM 2540 C-97	TDS				2.91	
SM 2540 D-97	TSS				4.35	
SM 4500 F-C-97	Fluoride	98.8	97.2	95.5		1.45
SM 5310 B-00	Organic Carbon	103	102	102		0.307

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2121598, 2121601, 2121604, 2121607
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2121626
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2121626
EPA 300.0 / E31780	Bromide in aqueous matrices	2121604
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2121598, 2121601, 2121607
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2121598, 2121601, 2121607
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2121599, 2121602, 2121605, 2121608
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2121599, 2121602, 2121605, 2121608
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2121599, 2121602, 2121605, 2121608
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2121599, 2121602, 2121605, 2121608
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2121600, 2121603, 2121606, 2121609
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2121623, 2121624, 2121625
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2121623, 2121624, 2121625
SM 2120 B / E31780	True Color measured at 450 nm	2121598, 2121601, 2121607
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	2121598, 2121601, 2121604, 2121607
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2121598, 2121601, 2121607
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2121598, 2121601, 2121604, 2121607
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2121598, 2121601, 2121604, 2121607
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2121599, 2121602, 2121605, 2121608

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	09/21/2019			09/24/2019 16:58	Rosalyn Ballman	2121598, 2121601, 2121604, 2121607
EPA 200.7 Rev. 4.4	09/21/2019	09/25/2019 16:55	Elliott D. Healy	09/27/2019 13:03	Betina Topolski	2121626
EPA 200.8 Rev. 5.4	09/21/2019	09/25/2019 16:55	Elliott D. Healy	09/27/2019 02:24	Robert K Palmer	2121626
	09/21/2019	09/25/2019 16:55	Elliott D. Healy	09/27/2019 13:15	Robert K Palmer	2121626
EPA 300.0	09/21/2019			09/23/2019 22:56	Jhamieka S. Greenwood	2121604
EPA 300.0 Rev. 2.1	09/21/2019			09/24/2019 08:40	Jhamieka S. Greenwood	2121598
	09/21/2019			09/24/2019 08:52	Jhamieka S. Greenwood	2121601
	09/21/2019			09/24/2019 09:05	Jhamieka S. Greenwood	2121607
EPA 350.1 Rev. 2.0	09/21/2019			09/27/2019 15:08	Ping Hua	2121599
	09/21/2019			10/01/2019 11:50	Ping Hua	2121605
	09/21/2019			10/01/2019 14:38	Ping Hua	2121608
	09/21/2019			10/02/2019 14:25	Ping Hua	2121602
EPA 351.2 Rev. 2.0	09/21/2019	09/24/2019 12:39	Sima Feizi	09/25/2019 17:50	Julia Storbeck	2121602
	09/21/2019	09/24/2019 12:39	Sima Feizi	09/25/2019 17:55	Julia Storbeck	2121599
	09/21/2019	09/24/2019 12:39	Sima Feizi	09/25/2019 17:57	Julia Storbeck	2121608
	09/21/2019	09/27/2019 12:10	Jhamieka S. Greenwood	09/30/2019 14:40	Virginia P. Brown	2121605
EPA 353.2 Rev. 2.0	09/21/2019			09/24/2019 11:12	Beverly Y. Sanders	2121605
	09/21/2019			09/26/2019 12:17	Beverly Y. Sanders	2121599
	09/21/2019			09/26/2019 12:22	Beverly Y. Sanders	2121602
	09/21/2019			09/26/2019 12:24	Beverly Y. Sanders	2121608
EPA 365.1 Rev. 2.0	09/21/2019	09/25/2019 14:00	Lipi Saha	09/26/2019 11:11	Lipi Saha	2121605
	09/21/2019	09/25/2019 14:00	Lipi Saha	09/26/2019 12:05	Lipi Saha	2121599
	09/21/2019	09/25/2019 14:00	Lipi Saha	09/26/2019 12:06	Lipi Saha	2121602
	09/21/2019	09/25/2019 14:00	Lipi Saha	09/26/2019 12:07	Lipi Saha	2121608
EPA 365.1 Rev. 2.0 dissolved	09/21/2019			09/24/2019 16:44	Jhamieka S. Greenwood	2121600
	09/21/2019			09/24/2019 16:45	Jhamieka S. Greenwood	2121603
	09/21/2019			09/24/2019 16:50	Jhamieka S. Greenwood	2121609
	09/21/2019			09/24/2019 16:52	Jhamieka S. Greenwood	2121606
EPA 8321B	09/21/2019	09/23/2019 10:00	Rebecca Ware	09/23/2019 12:59	Rebecca Ware	2121623
	09/21/2019	09/23/2019 10:00	Rebecca Ware	09/23/2019 13:32	Rebecca Ware	2121625
	09/21/2019	09/23/2019 10:00	Rebecca Ware	09/23/2019 15:20	Rebecca Ware	2121624
	09/21/2019	09/23/2019 10:00	Rebecca Ware	09/24/2019 20:19	Rebecca Ware	2121623
	09/21/2019	09/23/2019 10:00	Rebecca Ware	09/24/2019 20:47	Rebecca Ware	2121624
	09/21/2019	09/23/2019 10:00	Rebecca Ware	09/24/2019 21:01	Rebecca Ware	2121625
	09/21/2019	09/23/2019 10:00	Rebecca Ware	09/25/2019 15:09	Rebecca Ware	2121623
	09/21/2019	09/23/2019 10:00	Rebecca Ware	09/27/2019 20:00	Rebecca Ware	2121623
	09/21/2019	09/23/2019 10:00	Rebecca Ware	09/27/2019 20:24	Rebecca Ware	2121624
	09/21/2019	09/23/2019 10:00	Rebecca Ware	09/27/2019 20:36	Rebecca Ware	2121625
	09/21/2019	09/24/2019 13:10	Hoor Shaik	09/25/2019 09:12	Juyoung Kim	2121623
	09/21/2019	09/24/2019 13:10	Hoor Shaik	09/25/2019 10:22	Juyoung Kim	2121624

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	09/21/2019	09/24/2019 13:10	Hoor Shaik	09/25/2019 11:31	Juyoung Kim	2121625
SM 2120 B	09/21/2019			09/24/2019 17:11	Madeline Funaro	2121598
	09/21/2019			09/24/2019 17:12	Madeline Funaro	2121601
	09/21/2019			09/24/2019 17:55	Madeline Funaro	2121607
SM 2320 B-97	09/21/2019	09/24/2019 13:10	Hoor Shaik	09/28/2019 12:21	Dale L. Simmons	2121601
	09/21/2019			09/28/2019 13:17	Dale L. Simmons	2121607
	09/21/2019			09/28/2019 17:18	Dale L. Simmons	2121598
	09/21/2019			09/28/2019 17:59	Dale L. Simmons	2121604
SM 2540 C-97	09/21/2019	09/24/2019 13:10	Hoor Shaik	09/25/2019 14:25	Yijie Li	2121598, 2121601, 2121607
SM 2540 D-97	09/21/2019			09/25/2019 14:25	Yijie Li	2121598, 2121601, 2121604, 2121607
SM 4500 F-C-97	09/21/2019			09/28/2019 12:21	Dale L. Simmons	2121601
	09/21/2019			09/28/2019 13:17	Dale L. Simmons	2121607
	09/21/2019			09/28/2019 17:18	Dale L. Simmons	2121598
	09/21/2019			09/28/2019 17:59	Dale L. Simmons	2121604
SM 5310 B-00	09/21/2019	09/24/2019 13:10	Hoor Shaik	09/25/2019 17:47	Madeline Funaro	2121599
	09/21/2019			09/25/2019 18:00	Madeline Funaro	2121602
	09/21/2019			09/25/2019 18:12	Madeline Funaro	2121605
	09/21/2019			09/25/2019 18:24	Madeline Funaro	2121608