Chemical Analysis Report

SW-DIST-2020-10-22-01

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

Event Description: **SMP:: Run 11**
Request ID: **RQ-2020-10-19-11**
Customer: **SW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
13051 N. Telecom Parkway
Temple Terrace, FL 33637-0926
Attn: Ben Paswater

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Kerry Tate, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Colin Wright, Program Administrator

Date Certified: 16-NOV-2020 09:27

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: 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: Chito Branch in Park **Collection Date/Time: 10/21/2020 11:30**

Field ID: G2SW0133 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2204240	EPA 180.1 Rev. 2.0	Turbidity	5.2	A	NTU	P389133	
	EPA 300.0 Rev. 2.1	Chloride	18		mg Cl/L	P389473	
		Sulfate	46		mg SO4/L	P389476	
	SM 2120 B-2011	Color (true)	210		PCU	P389101	
	SM 2320 B-2011	Total Alkalinity	64		mg CaCO3/L	P389230	
	SM 2540 C-2011	TDS	199		mg/L	P389605	
	SM 2540 D-2011	TSS	3	I	mg/L	P389602	
	SM 4500 F-C-2011	Fluoride	0.41		mg F/L	P389236	
2204244	EPA 350.1 Rev. 2.0	Ammonia-N	0.015		mg N/L	P389212	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.86		mg N/L	P389492	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.11		mg N/L	P389250	
	EPA 365.1 Rev. 2.0	Total-P	0.29		mg P/L	P389507	
	SM 5310 B-2011	Organic Carbon	20		mg C/L	P389296	
2204248	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.22		mg P/L	P389120	
2204277	EPA 8321B	2,4-D	0.0084		ug/L	P389104	
		Acesulfame K**	0.10	U	ug/L	P389220	MS
		AMPA**	33		ug/L	P389220	
		Sucralose**	0.093		ug/L	P389220	
		Acetaminophen**	0.0080	U	ug/L	P389104	
		Acetamiprid**	0.0020	U	ug/L	P389104	
		Endothall**	0.25	U	ug/L	P389220	
		Glufosinate**	0.13	I	ug/L	P389220	
		Glyphosate**	6.5		ug/L	P389220	
		Afidopyropen**	0.0020	U	ug/L	P389104	
		Bentazon	0.013		ug/L	P389104	
		Benzovindiflupyr**	0.0020	U	ug/L	P389104	
		Carbamazepine**	8.0E-04	U	ug/L	P389104	
		Clothianidin**	0.011		ug/L	P389104	
		Dinotefuran**	0.0020	U	ug/L	P389104	
		Diuron	0.0020	U	ug/L	P389104	
		Fenuron	0.016	U	ug/L	P389104	
		Fluridone**	0.0011	I	ug/L	P389104	
		Imazapyr**	0.041		ug/L	P389104	
		Hydrocodone**	0.0020	U	ug/L	P389104	
		Ibuprofen**	0.020	U	ug/L	P389104	
		Imidacloprid	0.11		ug/L	P389104	
		Linuron	0.0040	U	ug/L	P389104	
		Mandestrobin**	0.0020	U	ug/L	P389104	
		MCPP	0.0020	U	ug/L	P389104	
		Naproxen**	0.0080	U	ug/L	P389104	
		Primidone**	0.0040	U	ug/L	P389104	
		Pyraclostrobin**	0.0020	U	ug/L	P389104	
		Thiamethoxam**	0.083		ug/L	P389104	

Field ID: G2SW0133 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2204277	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P389104	
		Triclopyr**	0.0040	U	ug/L	P389104	

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

Sample Location: Owens Branch In Park **Collection Date/Time: 10/21/2020 10:25**

Field ID: G2SW0132 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2204241	EPA 180.1 Rev. 2.0	Turbidity	3.2		NTU	P389133	
	EPA 300.0 Rev. 2.1	Chloride	13		mg Cl/L	P389803	
		Sulfate	36		mg SO4/L	P389806	
	SM 2120 B-2011	Color (true)	130		PCU	P389101	
	SM 2320 B-2011	Total Alkalinity	36		mg CaCO3/L	P389231	
	SM 2540 C-2011	TDS	151		mg/L	P389605	
	SM 2540 D-2011	TSS	2	I	mg/L	P389602	
	SM 4500 F-C-2011	Fluoride	0.37		mg F/L	P389456	
2204245	EPA 350.1 Rev. 2.0	Ammonia-N	0.024		mg N/L	P389578	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.74		mg N/L	P389190	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.1		mg N/L	P389460	
	EPA 365.1 Rev. 2.0	Total-P	0.53		mg P/L	P389392	
	SM 5310 B-2011	Organic Carbon	15		mg C/L	P389223	
2204249	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.46		mg P/L	P389121	
2204275	EPA 8321B	2,4-D	0.0020	U	ug/L	P389104	
		Acesulfame K**	0.10	U	ug/L	P389220	MS
		AMPA**	0.41		ug/L	P389220	
		Sucralose**	0.028	I	ug/L	P389220	
		Acetaminophen**	0.0080	U	ug/L	P389104	
		Acetamiprid**	0.0020	U	ug/L	P389104	
		Endothall**	0.25	U	ug/L	P389220	
		Glufosinate**	0.10	U	ug/L	P389220	
		Glyphosate**	0.11	I	ug/L	P389220	
		Afidopyropen**	0.0020	U	ug/L	P389104	
		Bentazon	8.0E-04	U	ug/L	P389104	
		Benzovindiflupyr**	0.0020	U	ug/L	P389104	
		Carbamazepine**	8.0E-04	U	ug/L	P389104	
		Clothianidin**	0.030		ug/L	P389104	
		Dinotefuran**	0.0020	U	ug/L	P389104	
		Diuron	0.0020	U	ug/L	P389104	
		Fenuron	0.016	U	ug/L	P389104	
		Fluridone**	8.0E-04	U	ug/L	P389104	
		Imazapyr**	0.12		ug/L	P389104	
		Hydrocodone**	0.0020	U	ug/L	P389104	
		Ibuprofen**	0.020	U	ug/L	P389104	
		Imidacloprid	0.051		ug/L	P389104	
		Linuron	0.0040	U	ug/L	P389104	
		Mandestrobin**	0.0020	U	ug/L	P389104	
		MCPP	0.0020	U	ug/L	P389104	
		Naproxen**	0.0080	U	ug/L	P389104	
		Primidone**	0.0040	U	ug/L	P389104	
		Pyraclostrobin**	0.0020	U	ug/L	P389104	
		Thiamethoxam**	0.096		ug/L	P389104	

Field ID: G2SW0132 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2204275	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P389104	
		Triclopyr**	0.0040	U	ug/L	P389104	

Ref. Method and Comment:
SM 2540 C-2011: The reported result is consistent with the conductivity measured in the laboratory, 209 umhos/cm.
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Mizelle Creek In Park **Collection Date/Time: 10/21/2020 11:00**

Field ID: G2SW0131 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2204242	EPA 180.1 Rev. 2.0	Turbidity	5.6		NTU	P389133	
	EPA 300.0 Rev. 2.1	Chloride	13		mg Cl/L	P389473	
		Sulfate	10		mg SO4/L	P389476	
	SM 2120 B-2011	Color (true)	120	A	PCU	P389102	
	SM 2320 B-2011	Total Alkalinity	107		mg CaCO3/L	P389230	
	SM 2540 C-2011	TDS	192	A	mg/L	P389605	
	SM 2540 D-2011	TSS	3	I	mg/L	P389602	
	SM 4500 F-C-2011	Fluoride	0.87		mg F/L	P389236	
2204246	EPA 350.1 Rev. 2.0	Ammonia-N	0.042		mg N/L	P389213	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P389327	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.42		mg N/L	P389250	
	EPA 365.1 Rev. 2.0	Total-P	0.73		mg P/L	P389507	
	SM 5310 B-2011	Organic Carbon	19		mg C/L	P389296	
2204250	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.53		mg P/L	P389122	
2204274	EPA 8321B	2,4-D	0.0020	U	ug/L	P389104	
		Acesulfame K**	0.10	UJ	ug/L	P389220	MS
		AMPA**	0.37	I	ug/L	P389220	
		Sucralose**	0.034	I	ug/L	P389220	
		Acetaminophen**	0.015	I	ug/L	P389104	
		Endothall**	0.25	U	ug/L	P389220	
		Acetamiprid**	0.0020	U	ug/L	P389104	
		Glufosinate**	0.10	U	ug/L	P389220	
		Glyphosate**	0.15	I	ug/L	P389220	
		Afidopyropen**	0.0020	U	ug/L	P389104	
		Bentazon	8.0E-04	U	ug/L	P389104	
		Benzovindiflupyr**	0.0020	U	ug/L	P389104	
		Carbamazepine**	8.0E-04	U	ug/L	P389104	
		Clothianidin**	0.0020	U	ug/L	P389104	
		Dinotefuran**	0.0020	U	ug/L	P389104	
		Diuron	0.0040	I	ug/L	P389104	
		Fenuron	0.016	U	ug/L	P389104	
		Fluridone**	8.0E-04	U	ug/L	P389104	
		Imazapyr**	0.067		ug/L	P389104	
		Hydrocodone**	0.0020	U	ug/L	P389104	
		Ibuprofen**	0.020	U	ug/L	P389104	
		Imidacloprid	0.0020	U	ug/L	P389104	
		Linuron	0.0040	U	ug/L	P389104	
		Mandestrobin**	0.0020	U	ug/L	P389104	
		MCPP	0.0020	U	ug/L	P389104	
		Naproxen**	0.0080	U	ug/L	P389104	
		Primidone**	0.0040	U	ug/L	P389104	
		Pyraclostrobin**	0.0020	U	ug/L	P389104	
		Thiamethoxam**	0.0020	U	ug/L	P389104	

Field ID: G2SW0131 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2204274	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P389104	
		Triclopyr**	0.0040	U	ug/L	P389104	

Ref. Method and Comment:
SM 2540 D-2011: 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: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.
EPA 8321B: Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: Mcdonald Branch @ Thompson Rd **Collection Date/Time: 10/21/2020 11:55**

Field ID: G2SW0093 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2204243	EPA 180.1 Rev. 2.0	Turbidity	1.0		NTU	P389133	
	EPA 300.0 Rev. 2.1	Chloride	18		mg Cl/L	P389474	
		Sulfate	17		mg SO4/L	P389477	
	SM 2120 B-2011	Color (true)	77		PCU	P389102	
	SM 2320 B-2011	Total Alkalinity	61		mg CaCO3/L	P389230	
	SM 2540 C-2011	TDS	154		mg/L	P389605	
	SM 2540 D-2011	TSS	2	U	mg/L	P389602	
	SM 4500 F-C-2011	Fluoride	0.24		mg F/L	P389236	
2204247	EPA 350.1 Rev. 2.0	Ammonia-N	0.009		mg N/L	P389213	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.44		mg N/L	P389327	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.60		mg N/L	P389250	
	EPA 365.1 Rev. 2.0	Total-P	0.20		mg P/L	P389507	
	SM 5310 B-2011	Organic Carbon	8.4		mg C/L	P389296	
2204251	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.17		mg P/L	P389122	
2204276	EPA 8321B	2,4-D	0.0020	U	ug/L	P389104	
		Acesulfame K**	0.10	U	ug/L	P389220	MS
		AMPA**	0.10	U	ug/L	P389220	
		Sucralose**	0.11		ug/L	P389220	
		Acetaminophen**	0.0080	U	ug/L	P389104	
		Acetamiprid**	0.0020	U	ug/L	P389104	
		Endothall**	0.25	U	ug/L	P389220	
		Glufosinate**	0.10	U	ug/L	P389220	
		Glyphosate**	0.10	U	ug/L	P389220	
		Afidopyropen**	0.0020	U	ug/L	P389104	
		Bentazon	8.0E-04	U	ug/L	P389104	
		Benzovindiflupyr**	0.0020	U	ug/L	P389104	
		Carbamazepine**	8.0E-04	U	ug/L	P389104	
		Clothianidin**	0.0020	U	ug/L	P389104	
		Dinotefuran**	0.0020	U	ug/L	P389104	
		Diuron	0.0020	U	ug/L	P389104	
		Fenuron	0.016	U	ug/L	P389104	
		Fluridone**	0.0030	I	ug/L	P389104	
		Imazapyr**	0.0040	U	ug/L	P389104	
		Hydrocodone**	0.0020	U	ug/L	P389104	
		Ibuprofen**	0.020	U	ug/L	P389104	
		Imidacloprid	0.0020	U	ug/L	P389104	
		Linuron	0.0040	U	ug/L	P389104	
		Mandestrobin**	0.0020	U	ug/L	P389104	
		MCPP	0.0020	U	ug/L	P389104	
		Naproxen**	0.0080	U	ug/L	P389104	
		Primidone**	0.0047	I	ug/L	P389104	
		Pyraclostrobin**	0.0020	U	ug/L	P389104	
		Thiamethoxam**	0.0020	U	ug/L	P389104	

Field ID: G2SW0093 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2204276	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P389104	
		Triclopyr**	0.0040	U	ug/L	P389104	

Ref. Method and Comment:
SM 2540 D-2011: 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: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P389133

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389473

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389474

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389476

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389477

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389803

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389806

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P389212

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P389213

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P389578

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P389190

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P389327

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P389492

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P389250

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P389460

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P389392

Component	Result	Code	Units
Total-P	0.005	U	mg P/L

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P389507

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P389120

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P389121

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P389122

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

Reference Method: EPA 8321B
Batch ID: P389104

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
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P389220

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

Quality Assurance Report
Method Blank Results

Reference Method: SM 2120 B-2011
Batch ID: P389101

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B-2011
Batch ID: P389102

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P389230

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

Reference Method: SM 2320 B-2011
Batch ID: P389231

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

Reference Method: SM 2540 C-2011
Batch ID: P389605

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P389602

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P389236

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-2011
Batch ID: P389456

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P389223

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

Quality Assurance Report
Method Blank Results

Reference Method: SM 5310 B-2011
Batch ID: P389296

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389473

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389474

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389476

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389477

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389803

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389806

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	99.3		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P389212

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P389213

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	97.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P389578

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P389190

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P389327

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P389492

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P389250

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: P389460

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	99.0		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P389392

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P389507

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P389120

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P389121

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	99.5		P	90 - 110

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P389122

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	98.0		P	90 - 110

Reference Method: EPA 8321B
Batch ID: P389104

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	71.8		P	30 - 160
Acetaminophen	51.6		P	30 - 160
Acetamiprid	55.2		P	30 - 160
Afidopyropen	43.0		P	30 - 160
Bentazon	53.7		P	30 - 160
Benzovindiflupyr	66.9		P	30 - 160
Carbamazepine	49.2		P	30 - 160
Clothianidin	83.6		P	30 - 160
Dinotefuran	71.2		P	30 - 160
Diuron	55.1		P	30 - 160
Fenuron	102		P	30 - 160
Fluridone	73.8		P	30 - 160
Hydrocodone	99.9		P	30 - 160
Ibuprofen	86.3		P	30 - 160
Imazapyr	100		P	30 - 160
Imidacloprid	82.2		P	30 - 160
Linuron	61.8		P	30 - 160
Mandestrobin	75.2		P	30 - 160
MCPP	74.1		P	30 - 160
Naproxen	81.1		P	30 - 160
Primidone	93.1		P	30 - 160
Pyraclostrobin	55.5		P	30 - 160
Thiamethoxam	95.5		P	30 - 160
Tolfenpyrad	53.4		P	30 - 160
Triclopyr	61.0		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P389220

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	136		P	40 - 150
AMPA	96.6		P	40 - 150
Endothall	83.5		P	40 - 150
Glufosinate	97.6		P	40 - 150
Glyphosate	99.4		P	40 - 140
Sucralose	113		P	40 - 150

Reference Method: SM 2120 B-2011
Batch ID: P389101

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	101		P	85 - 115

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 2120 B-2011
Batch ID: P389102

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

Reference Method: SM 2320 B-2011
Batch ID: P389230

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	93 - 104

Reference Method: SM 2320 B-2011
Batch ID: P389231

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	93 - 104

Reference Method: SM 4500 F-C-2011
Batch ID: P389236

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.6		P	90 - 106

Reference Method: SM 4500 F-C-2011
Batch ID: P389456

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	100		P	90 - 106

Reference Method: SM 5310 B-2011
Batch ID: P389223

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.0		P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P389296

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

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389473

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2204000	Chloride	101		P	90 - 110
2204104	Chloride	100		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389474

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2204421	Chloride	102		P	90 - 110
2204498	Chloride	103		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389476

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2204000	Sulfate	102		P	90 - 110
2204104	Sulfate	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389477

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2204421	Sulfate	103		P	90 - 110
2204498	Sulfate	102		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389803

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2204621	Chloride	98.8		P	90 - 110
2204770	Chloride	98.9		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389806

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2204621	Sulfate	98.5		P	90 - 110
2204770	Sulfate	98.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P389212

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2204244	Ammonia-N	98.7	97.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P389213

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2204422	Ammonia-N	98.1	98.4	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P389578

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2204753	Ammonia-N	105	105	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P389190

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2203793	Kjeldahl Nitrogen	101	108	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P389327

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2204422	Kjeldahl Nitrogen	113	99.5	F/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P389492

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2204123	Kjeldahl Nitrogen	113	115	F/F	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P389250

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2204190	NO2NO3-N	91.5	91.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P389460

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2202076	NO2NO3-N	98.8	98.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P389392

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2203794	Total-P	104	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P389507

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2204124	Total-P	104	107	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P389120

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2204107	O-Phosphate-P	94.8	94.8	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P389121

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2204249	O-Phosphate-P	98.8	98.7	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P389104

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2203654	2,4-D	78.3	68.1	P/P	30 - 160
2203654	Acetaminophen	64.4	64.2	P/P	30 - 160
2203654	Acetamiprid	67.5	61.5	P/P	30 - 160
2203654	Afidopyropen	49.5	42.6	P/P	30 - 160
2203654	Bentazon	50.8	45.7	P/P	30 - 160
2203654	Benzovindiflupyr	66.5	68.4	P/P	30 - 160
2203654	Carbamazepine	59.8	55.9	P/P	30 - 160
2203654	Clothianidin	92.2	83.9	P/P	30 - 160
2203654	Dinotefuran	80.8	76.1	P/P	30 - 160
2203654	Diuron	54.4	53.1	P/P	30 - 160
2203654	Fenuron	38.5	40.5	P/P	30 - 160
2203654	Fluridone	70.5	80.0	P/P	30 - 160
2203654	Hydrocodone	112	113	P/P	30 - 160
2203654	Ibuprofen	75.3	74.9	P/P	30 - 160
2203654	Imazapyr	108	101	P/P	30 - 160
2203654	Imidacloprid	99.0	103	P/P	30 - 160
2203654	Linuron	62.0	70.6	P/P	30 - 160
2203654	Mandestrobin	72.4	78.8	P/P	30 - 160
2203654	MCPP	91.1	92.8	P/P	30 - 160
2203654	Naproxen	66.7	56.6	P/P	30 - 160
2203654	Primidone	86.9	87.3	P/P	30 - 160
2203654	Pyraclostrobin	59.8	63.4	P/P	30 - 160
2203654	Thiamethoxam	93.0	117	P/P	30 - 160
2203654	Tolfenpyrad	53.7	54.2	P/P	30 - 160
2203654	Triclopyr	69.6	66.8	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P389220

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2204274	Acesulfame K	31.6	34.4	F/F	40 - 150
2204274	AMPA	92.5	97.1	P/P	40 - 150
2204274	Endothall	83.0	95.1	P/P	40 - 150
2204274	Glufosinate	90.6	92.1	P/P	40 - 150
2204274	Glyphosate	77.5	95.9	P/P	40 - 140
2204274	Sucralose	66.2	56.8	P/P	40 - 150

Reference Method: SM 4500 F-C-2011
Batch ID: P389236

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2204041	Fluoride	99.7	98.0	P/P	94 - 107

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: SM 4500 F-C-2011
Batch ID: P389456

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2204595	Fluoride	103	102	P/P	94 - 107

Reference Method: SM 5310 B-2011
Batch ID: P389223

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2203634	Organic Carbon	100	99.4	P/P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P389296

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2204495	Organic Carbon	106		P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P389133

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204240	Turbidity	4.20	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389473

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204104	Chloride	0.0268	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389474

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204498	Chloride	0.530	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389476

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204104	Sulfate	0.388	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389477

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204498	Sulfate	0.369	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389803

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204621	Chloride	0.759	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389806

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204621	Sulfate	0.782	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P389212

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204244	Ammonia-N	0.705	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P389213

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204422	Ammonia-N	0.275	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P389578

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204753	Ammonia-N	0.181	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P389190

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2203793	Kjeldahl Nitrogen	5.38	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P389327

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204422	Kjeldahl Nitrogen	10.8	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P389492

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204123	Kjeldahl Nitrogen	1.57	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P389250

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204190	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P389460

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2202076	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P389392

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2203794	Total-P	0.163	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P389507

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204124	Total-P	2.63	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P389120

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204107	O-Phosphate-P	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P389121

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204249	O-Phosphate-P	0.0692	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P389122

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204251	O-Phosphate-P	0.339	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P389104

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2203654	2,4-D	14.0	Spike	P	0 - 30
2203654	Acetaminophen	0.237	Spike	P	0 - 30
2203654	Acetamiprid	9.32	Spike	P	0 - 30
2203654	Afidopyropen	15.0	Spike	P	0 - 30
2203654	Bentazon	10.6	Spike	P	0 - 30
2203654	Benzovindiflupyr	2.72	Spike	P	0 - 30
2203654	Carbamazepine	6.84	Spike	P	0 - 30
2203654	Clothianidin	9.37	Spike	P	0 - 30
2203654	Dinotefuran	5.95	Spike	P	0 - 30
2203654	Diuron	2.38	Spike	P	0 - 30
2203654	Fenuron	2.16	Spike	P	0 - 30
2203654	Fluridone	12.6	Spike	P	0 - 30
2203654	Hydrocodone	1.05	Spike	P	0 - 30
2203654	Ibuprofen	0.506	Spike	P	0 - 30
2203654	Imazapyr	6.11	Spike	P	0 - 30
2203654	Imidacloprid	3.59	Spike	P	0 - 30
2203654	Linuron	12.9	Spike	P	0 - 30
2203654	Mandestrobin	8.48	Spike	P	0 - 30
2203654	MCPP	1.89	Spike	P	0 - 30
2203654	Naproxen	16.5	Spike	P	0 - 30
2203654	Primidone	0.499	Spike	P	0 - 30
2203654	Pyraclostrobin	5.85	Spike	P	0 - 30
2203654	Thiamethoxam	22.8	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P389104

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2203654	Tolfenpyrad	0.880	Spike	P	0 - 30
2203654	Triclopyr	4.15	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P389220

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204274	Acesulfame K	8.69	Spike	P	0 - 30
2204274	AMPA	3.48	Spike	P	0 - 30
2204274	Endothall	13.6	Spike	P	0 - 30
2204274	Glufosinate	1.62	Spike	P	0 - 30
2204274	Glyphosate	18.0	Spike	P	0 - 30
2204274	Sucralose	14.9	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P389101

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204103	Color (true)	0.462	Sample	P	0 - 20

Reference Method: SM 2120 B-2011
Batch ID: P389102

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204242	Color (true)	2.02	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P389230

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204041	Total Alkalinity	5.18	Sample	P	0 - 8.1

Reference Method: SM 2320 B-2011
Batch ID: P389231

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2203790	Total Alkalinity	0.296	Sample	P	0 - 8.1

Reference Method: SM 2540 C-2011
Batch ID: P389605

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204242	TDS	1.04	Sample	P	0 - 10

Quality Assurance Report
Precision

Reference Method: SM 4500 F-C-2011
Batch ID: P389236

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204041	Fluoride	1.50	Spike	P	0 - 2.8

Reference Method: SM 4500 F-C-2011
Batch ID: P389456

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204595	Fluoride	0.995	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011
Batch ID: P389223

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2203634	Organic Carbon	0.751	Spike	P	0 - 20

Reference Method: SM 5310 B-2011
Batch ID: P389296

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204495	Organic Carbon	1.42	Spike	P	0 - 20

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

Quality Assurance Report
Surrogates

Lab Sample ID: 2204274
Field Sample ID: G2SW0131

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	75.6	P	30 - 160
EPA 8321B	Acetaminophen-d4	62.4	P	30 - 160
EPA 8321B	Carbamazepine-d10	38.2	P	30 - 160
EPA 8321B	Diuron-d6	38.2	P	30 - 160
EPA 8321B	Endothall-d6	100	P	30 - 160
EPA 8321B	Endothall-d6	100	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	113	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	113	P	30 - 160
EPA 8321B	Ibuprofen-d3	71.3	P	30 - 160
EPA 8321B	Primidone-d5	68.9	P	30 - 160
EPA 8321B	Sucralose-d6	57.5	P	30 - 160
EPA 8321B	Sucralose-d6	57.5	P	30 - 160

Lab Sample ID: 2204275
Field Sample ID: G2SW0132

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	81.9	P	30 - 160
EPA 8321B	Acetaminophen-d4	78.0	P	30 - 160
EPA 8321B	Carbamazepine-d10	43.5	P	30 - 160
EPA 8321B	Diuron-d6	45.9	P	30 - 160
EPA 8321B	Endothall-d6	97.5	P	30 - 160
EPA 8321B	Endothall-d6	97.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	110	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	110	P	30 - 160
EPA 8321B	Ibuprofen-d3	82.6	P	30 - 160
EPA 8321B	Primidone-d5	77.5	P	30 - 160
EPA 8321B	Sucralose-d6	67.6	P	30 - 160
EPA 8321B	Sucralose-d6	67.6	P	30 - 160

Lab Sample ID: 2204276
Field Sample ID: G2SW0093

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	82.7	P	30 - 160
EPA 8321B	Acetaminophen-d4	63.7	P	30 - 160
EPA 8321B	Carbamazepine-d10	41.7	P	30 - 160
EPA 8321B	Diuron-d6	47.6	P	30 - 160
EPA 8321B	Endothall-d6	90.0	P	30 - 160
EPA 8321B	Endothall-d6	90.0	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	111	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	111	P	30 - 160
EPA 8321B	Ibuprofen-d3	73.5	P	30 - 160
EPA 8321B	Primidone-d5	86.6	P	30 - 160
EPA 8321B	Sucralose-d6	79.1	P	30 - 160
EPA 8321B	Sucralose-d6	79.1	P	30 - 160

Lab Sample ID: 2204277
Field Sample ID: G2SW0133

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	82.1	P	30 - 160

Quality Assurance Report
Surrogates

Lab Sample ID: 2204277
Field Sample ID: G2SW0133

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	66.7	P	30 - 160
EPA 8321B	Carbamazepine-d10	41.1	P	30 - 160
EPA 8321B	Diuron-d6	42.7	P	30 - 160
EPA 8321B	Endothall-d6	93.3	P	30 - 160
EPA 8321B	Endothall-d6	93.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	108	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	108	P	30 - 160
EPA 8321B	Ibuprofen-d3	76.1	P	30 - 160
EPA 8321B	Primidone-d5	75.7	P	30 - 160
EPA 8321B	Sucralose-d6	66.0	P	30 - 160
EPA 8321B	Sucralose-d6	66.0	P	30 - 160

Quality Assurance Report
Calibration Verification

Reference Method: SM 2120 B-2011
Run ID: A101692
Included Lab Sample IDs: 2204240, 2204241, 2204242, 2204243

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	103	P/P	90 - 115
Color (true)	103	104	P/P	90 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A101695
Included Lab Sample IDs: 2204248, 2204249, 2204250, 2204251

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	100	P/P	90 - 110
O-Phosphate-P	100	100	P/P	90 - 110
O-Phosphate-P	101	100	P/P	90 - 110
O-Phosphate-P	99.4	100	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A101705
Included Lab Sample IDs: 2204240, 2204241, 2204242, 2204243

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

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A101740
Included Lab Sample IDs: 2204244, 2204246, 2204247

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.2	98.2	P/P	90 - 110
Ammonia-N	99.9	97.0	P/P	90 - 110

Reference Method: SM 5310 B-2011
Run ID: A101747
Included Lab Sample IDs: 2204245

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.5	99.4	P/P	90 - 110

Reference Method: SM 2320 B-2011
Run ID: A101749
Included Lab Sample IDs: 2204240, 2204241, 2204242, 2204243

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	99.9	P/P	90 - 110
Total Alkalinity	102	98.9	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Run ID: A101749
Included Lab Sample IDs: 2204240, 2204242, 2204243

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A101763
Included Lab Sample IDs: 2204244, 2204246, 2204247

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	99.5	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A101768
Included Lab Sample IDs: 2204245

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

Reference Method: SM 5310 B-2011
Run ID: A101781
Included Lab Sample IDs: 2204244, 2204246, 2204247

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

Reference Method: EPA 8321B
Run ID: A101788
Included Lab Sample IDs: 2204274, 2204275, 2204276, 2204277

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	120	120	P/P	50 - 160
Sucralose	121	120	P/P	50 - 160

Reference Method: EPA 8321B
Run ID: A101797
Included Lab Sample IDs: 2204274, 2204275, 2204276, 2204277

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	91.4	107	P/P	50 - 150
Acetaminophen	115	108	P/P	60 - 160
Acetamiprid	111	111	P/P	50 - 150
Afidopyropen	82.3	93.7	P/P	50 - 150
Bentazon	98.9	96.4	P/P	50 - 160
Benzovindiflupyr	89.0	92.3	P/P	50 - 150
Carbamazepine	71.5	80.2	P/P	60 - 150
Clothianidin	99.8	91.5	P/P	60 - 150
Dinotefuran	84.1	77.9	P/P	50 - 150
Diuron	71.0	83.1	P/P	60 - 160
Fenuron	103	100	P/P	60 - 150
Fluridone	93.4	85.3	P/P	60 - 160
Hydrocodone	120	110	P/P	60 - 150
Ibuprofen	123	73.3	P/P	50 - 160
Imazapyr	120	106	P/P	50 - 160
Imidacloprid	93.3	93.8	P/P	60 - 150
Linuron	68.6	73.5	P/P	60 - 150
Mandestrobin	94.9	93.6	P/P	50 - 150
MCPP	87.4	91.6	P/P	50 - 150
Naproxen	64.4	114	P/P	50 - 160
Primidone	102	81.8	P/P	60 - 150
Pyraclostrobin	93.6	93.1	P/P	60 - 150

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A101797
Included Lab Sample IDs: 2204274, 2204275, 2204276, 2204277

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Thiamethoxam	109	109	P/P	50 - 150
Tolfenpyrad	110	116	P/P	60 - 150
Triclopyr	92.5	83.8	P/P	50 - 150

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A101798
Included Lab Sample IDs: 2204240, 2204242, 2204243

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

Reference Method: EPA 8321B
Run ID: A101810
Included Lab Sample IDs: 2204274, 2204275, 2204276, 2204277

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	102	108	P/P	50 - 160
AMPA	106	108	P/P	50 - 160
Glufosinate	103	98.3	P/P	50 - 160
Glufosinate	92.6	103	P/P	50 - 160
Glyphosate	103	99.5	P/P	50 - 160
Glyphosate	88.7	103	P/P	50 - 160

Reference Method: EPA 8321B
Run ID: A101811
Included Lab Sample IDs: 2204274, 2204275, 2204276, 2204277

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	128	134	P/P	50 - 160
Acesulfame K	133	128	P/P	50 - 160
Endothall	84.4	93.3	P/P	60 - 160
Endothall	93.3	100	P/P	60 - 160

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A101820
Included Lab Sample IDs: 2204246, 2204247

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	105	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A101848
Included Lab Sample IDs: 2204245

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

Quality Assurance Report
Calibration Verification

Reference Method: SM 4500 F-C-2011
Run ID: A101852
Included Lab Sample IDs: 2204241

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A101876
Included Lab Sample IDs: 2204245

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A101882
Included Lab Sample IDs: 2204244

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	104	96.7	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A101890
Included Lab Sample IDs: 2204245

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A101924
Included Lab Sample IDs: 2204244, 2204246, 2204247

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	105	103	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A101949
Included Lab Sample IDs: 2204241

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.1	99.4	P/P	90 - 110
Sulfate	98.7	98.3	P/P	90 - 110

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

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 180.1 Rev. 2.0	Turbidity					4.20	
EPA 300.0 Rev. 2.1	Chloride	101	100	101		0.0268	
	Chloride	102	103	102		0.530	
	Chloride	99.7	98.8	98.9		0.759	
	Sulfate	101	101	102		0.388	
	Sulfate	101	102	103		0.369	
	Sulfate	99.3	98.5	98.9		0.782	
EPA 350.1 Rev. 2.0	Ammonia-N	97.1	98.7	97.8			0.705
	Ammonia-N	97.7	98.1	98.4			0.275
	Ammonia-N	102	105	105			0.181
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101	101	108			5.38
	Kjeldahl Nitrogen	108	113	99.5			10.8
	Kjeldahl Nitrogen	102	113	115			1.57
EPA 353.2 Rev. 2.0	NO2NO3-N	100	91.5	91.5			0.0
	NO2NO3-N	99.0	98.8	98.8			0.0
EPA 365.1 Rev. 2.0	Total-P	107	104	104			0.163
	Total-P	107	104	107			2.63
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.4	94.8	94.8			0.0
	O-Phosphate-P	99.5	98.8	98.7			0.0692
	O-Phosphate-P	98.0					0.339
EPA 8321B	2,4-D	71.8	78.3	68.1			14.0
	Acesulfame K	136	31.6	34.4			8.69
	Acetaminophen	51.6	64.4	64.2			0.237
	Acetamiprid	55.2	67.5	61.5			9.32
	Afidopyropen	43.0	49.5	42.6			15.0
	AMPA	96.6	92.5	97.1			3.48
	Bentazon	53.7	50.8	45.7			10.6
	Benzovindiflupyr	66.9	66.5	68.4			2.72
	Carbamazepine	49.2	59.8	55.9			6.84
	Clothianidin	83.6	92.2	83.9			9.37
	Dinotefuran	71.2	80.8	76.1			5.95
	Diuron	55.1	54.4	53.1			2.38
	Endothall	83.5	83.0	95.1			13.6
	Fenuron	102	38.5	40.5			2.16
	Fluridone	73.8	70.5	80.0			12.6
	Glufosinate	97.6	90.6	92.1			1.62
	Glyphosate	99.4	77.5	95.9			18.0
	Hydrocodone	99.9	112	113			1.05
	Ibuprofen	86.3	75.3	74.9			0.506
	Imazapyr	100	108	101			6.11
	Imidacloprid	82.2	99.0	103			3.59
	Linuron	61.8	62.0	70.6			12.9
	Mandestrobin	75.2	72.4	78.8			8.48
	MCPP	74.1	91.1	92.8			1.89
	Naproxen	81.1	66.7	56.6			16.5
	Primidone	93.1	86.9	87.3			0.499
	Pyraclostrobin	55.5	59.8	63.4			5.85
	Sucralose	113	66.2	56.8			14.9
	Thiamethoxam	95.5	93.0	117			22.8
	Tolfenpyrad	53.4	53.7	54.2			0.880
	Triclopyr	61.0	69.6	66.8			4.15
SM 2120 B-2011	Color (true)	101				0.462	
	Color (true)	102				2.02	
SM 2320 B-2011	Total Alkalinity	102				5.18	

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
SM 2320 B-2011	Total Alkalinity	103				0.296	
SM 2540 C-2011	TDS					1.04	
SM 4500 F-C-2011	Fluoride	97.6	99.7	98.0			1.50
	Fluoride	100	103	102			0.995
SM 5310 B-2011	Organic Carbon	99.0	100	99.4			0.751
	Organic Carbon	100	106				1.42

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2204240, 2204241, 2204242, 2204243
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2204240, 2204241, 2204242, 2204243
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2204240, 2204241, 2204242, 2204243
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2204244, 2204245, 2204246, 2204247
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2204244, 2204245, 2204246, 2204247
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2204244, 2204245, 2204246, 2204247
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2204244, 2204245, 2204246, 2204247
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2204248, 2204249, 2204250, 2204251
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2204274, 2204275, 2204276, 2204277
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2204274, 2204275, 2204276, 2204277
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2204240, 2204241, 2204242, 2204243
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2204240, 2204241, 2204242, 2204243
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2204240, 2204241, 2204242, 2204243
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2204240, 2204241, 2204242, 2204243
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2204240, 2204241, 2204242, 2204243
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2204244, 2204245, 2204246, 2204247

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	10/22/2020			10/22/2020 13:37	Blanca Fach	2204240, 2204241, 2204242, 2204243
EPA 300.0 Rev. 2.1	10/22/2020			10/28/2020 19:24	Lipi Saha	2204240
	10/22/2020			10/28/2020 19:50	Lipi Saha	2204242
	10/22/2020			10/28/2020 22:28	Lipi Saha	2204243
	10/22/2020			11/04/2020 15:50	Lipi Saha	2204241
EPA 350.1 Rev. 2.0	10/22/2020			10/25/2020 12:25	Ping Hua	2204244
	10/22/2020			10/25/2020 13:03	Ping Hua	2204246
	10/22/2020			10/25/2020 13:04	Ping Hua	2204247
	10/22/2020			10/31/2020 14:35	Ping Hua	2204245
EPA 351.2 Rev. 2.0	10/22/2020	10/23/2020 14:03	David Boose	10/26/2020 10:52	Elliott Rodriguez	2204245
	10/22/2020	10/27/2020 13:07	David Boose	10/28/2020 11:33	Elliott Rodriguez	2204246
	10/22/2020	10/27/2020 13:07	David Boose	10/28/2020 11:35	Elliott Rodriguez	2204247
	10/22/2020	10/29/2020 13:45	David Boose	10/30/2020 13:02	Elliott Rodriguez	2204244
EPA 353.2 Rev. 2.0	10/22/2020			10/26/2020 11:31	Beverly Y. Sanders	2204244
	10/22/2020			10/26/2020 11:32	Beverly Y. Sanders	2204246
	10/22/2020			10/26/2020 11:33	Beverly Y. Sanders	2204247
	10/22/2020			10/29/2020 09:58	Beverly Y. Sanders	2204245
EPA 365.1 Rev. 2.0	10/22/2020	10/28/2020 13:34	Yen Ta	10/29/2020 17:43	Benjamin T. Nordmann	2204245
	10/22/2020	10/29/2020 15:54	Yen Ta	11/02/2020 12:20	Benjamin T. Nordmann	2204244
	10/22/2020	10/29/2020 15:54	Yen Ta	11/02/2020 12:21	Benjamin T. Nordmann	2204246
	10/22/2020	10/29/2020 15:54	Yen Ta	11/02/2020 12:22	Benjamin T. Nordmann	2204247
EPA 365.1 Rev. 2.0 dissolved	10/22/2020			10/22/2020 15:53	Virginia P. Brown	2204248
	10/22/2020			10/22/2020 16:04	Virginia P. Brown	2204251
	10/22/2020			10/22/2020 16:34	Virginia P. Brown	2204249
	10/22/2020			10/22/2020 16:43	Virginia P. Brown	2204250
EPA 8321B	10/22/2020	10/23/2020 12:00	Hoor Shaik	10/24/2020 11:57	Juyoung Kim	2204274
	10/22/2020	10/23/2020 12:00	Hoor Shaik	10/24/2020 12:32	Juyoung Kim	2204275
	10/22/2020	10/23/2020 12:00	Hoor Shaik	10/24/2020 13:06	Juyoung Kim	2204276
	10/22/2020	10/23/2020 12:00	Hoor Shaik	10/24/2020 13:41	Juyoung Kim	2204277
	10/22/2020	10/26/2020 10:00	Rebecca Ware	10/26/2020 18:24	Rebecca Ware	2204274
	10/22/2020	10/26/2020 10:00	Rebecca Ware	10/26/2020 18:35	Rebecca Ware	2204275
	10/22/2020	10/26/2020 10:00	Rebecca Ware	10/26/2020 18:47	Rebecca Ware	2204276
	10/22/2020	10/26/2020 10:00	Rebecca Ware	10/26/2020 19:11	Rebecca Ware	2204277
	10/22/2020	10/26/2020 10:00	Rebecca Ware	10/27/2020 13:25	Rebecca Ware	2204274
	10/22/2020	10/26/2020 10:00	Rebecca Ware	10/27/2020 13:38	Rebecca Ware	2204275
	10/22/2020	10/26/2020 10:00	Rebecca Ware	10/27/2020 13:52	Rebecca Ware	2204276
	10/22/2020	10/26/2020 10:00	Rebecca Ware	10/27/2020 14:26	Rebecca Ware	2204277
	10/22/2020	10/26/2020 10:00	Rebecca Ware	10/27/2020 17:26	Rebecca Ware	2204274
	10/22/2020	10/26/2020 10:00	Rebecca Ware	10/27/2020 17:36	Rebecca Ware	2204275
	10/22/2020	10/26/2020 10:00	Rebecca Ware	10/27/2020 17:47	Rebecca Ware	2204276

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	10/22/2020	10/26/2020 10:00	Rebecca Ware	10/27/2020 18:09	Rebecca Ware	2204277
	10/22/2020	10/26/2020 10:00	Rebecca Ware	10/28/2020 09:57	Rebecca Ware	2204277
SM 2120 B-2011	10/22/2020			10/22/2020 15:07	Benjamin T. Nordmann	2204241
	10/22/2020			10/22/2020 15:12	Benjamin T. Nordmann	2204242, 2204243
	10/22/2020			10/22/2020 15:15	Benjamin T. Nordmann	2204240
SM 2320 B-2011	10/22/2020			10/24/2020 06:25	Samantha Davila	2204240
	10/22/2020			10/24/2020 06:38	Samantha Davila	2204242
	10/22/2020			10/24/2020 06:51	Samantha Davila	2204243
	10/22/2020			10/24/2020 11:48	Samantha Davila	2204241
SM 2540 C-2011	10/22/2020			10/23/2020 17:40	Madeline Gruver	2204240, 2204241, 2204242, 2204243
SM 2540 D-2011	10/22/2020			10/27/2020 19:45	Madeline Gruver	2204240, 2204241, 2204242, 2204243
SM 4500 F-C-2011	10/22/2020			10/24/2020 06:25	Samantha Davila	2204240
	10/22/2020			10/24/2020 06:38	Samantha Davila	2204242
	10/22/2020			10/24/2020 06:51	Samantha Davila	2204243
	10/22/2020			10/29/2020 04:42	Samantha Davila	2204241
SM 5310 B-2011	10/22/2020			10/24/2020 07:50	Lauren Lees	2204245
	10/22/2020			10/26/2020 17:41	Lauren Lees	2204244
	10/22/2020			10/26/2020 17:53	Lauren Lees	2204246
	10/22/2020			10/26/2020 18:05	Lauren Lees	2204247