Chemical Analysis Report

SW-DIST-2019-03-08-01

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

Event Description: **Rice, Sims, Wolf, Mckay drainage**
Request ID: **RQ-2019-03-04-19**
Customer: **SW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
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13051 N. Telecom Parkway
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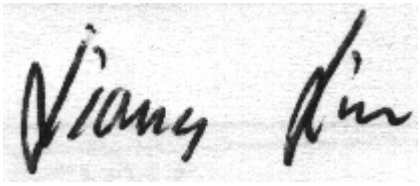
Date Certified: 02-APR-2019 14:01



Case Narrative

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

Results for the following analytical groups are included in this report: 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: RICE @ BALM RVRVIEW **Collection Date/Time: 03/07/2019 11:45**

Field ID: G2SW0032 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2068518	EPA 8321B	Acesulfame K**	0.37	I	ug/L	P360189	
		2,4-D	0.017		ug/L	P359974	
		AMPA**	0.20	I	ug/L	P360189	
		Sucralose**	1.1		ug/L	P360189	
		Endothall**	0.25	U	ug/L	P360189	
		Acetaminophen**	0.0080	U	ug/L	P359974	
		Glufosinate**	0.10	U	ug/L	P360189	
		Glyphosate**	0.17	I	ug/L	P360189	
		Bentazon	0.12		ug/L	P359974	
		Carbamazepine**	0.0022	I	ug/L	P359974	
		Diuron	0.0096		ug/L	P359974	
		Fenuron	0.051	I	ug/L	P359974	
		Fluridone**	0.016		ug/L	P359974	
		Imazapyr**	0.21		ug/L	P359974	
		Hydrocodone**	0.0020	U	ug/L	P359974	
		Ibuprofen**	0.020	U	ug/L	P359974	
		Imidacloprid	0.033		ug/L	P359974	
		Linuron	0.0040	U	ug/L	P359974	
		MCPP	0.0039	I	ug/L	P359974	
		Naproxen**	0.0080	U	ug/L	P359974	RPD
		Primidone**	0.016	I	ug/L	P359974	
		Pyraclostrobin**	0.0020	U	ug/L	P359974	
		Triclopyr**	0.0040	U	ug/L	P359974	

Ref. Method and Comment:
EPA 8321B: MS accuracy for acesulfame K could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: RICE CREEK @ OAK FOREST DR **Collection Date/Time: 03/07/2019 11:20**

Field ID: G2SW0096 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2068519	EPA 8321B	Acesulfame K**	0.38	I	ug/L	P360189	
		2,4-D	0.024		ug/L	P359974	
		AMPA**	0.20	I	ug/L	P360189	
		Sucralose**	1.0		ug/L	P360189	
		Endothall**	0.25	U	ug/L	P360189	
		Acetaminophen**	0.0080	U	ug/L	P359974	
		Glufosinate**	0.10	U	ug/L	P360189	
		Glyphosate**	0.17	I	ug/L	P360189	
		Bentazon	0.12		ug/L	P359974	
		Carbamazepine**	0.0014	I	ug/L	P359974	
		Diuron	0.0086		ug/L	P359974	
		Fenuron	0.024	I	ug/L	P359974	
		Fluridone**	0.016		ug/L	P359974	
		Imazapyr**	0.22		ug/L	P359974	
		Hydrocodone**	0.0020	U	ug/L	P359974	
		Ibuprofen**	0.020	U	ug/L	P359974	
		Imidacloprid	0.029		ug/L	P359974	
		Linuron	0.0040	U	ug/L	P359974	
		MCPP	0.0037	I	ug/L	P359974	
		Naproxen**	0.0080	U	ug/L	P359974	RPD
		Primidone**	0.014	I	ug/L	P359974	
		Pyraclostrobin**	0.0020	U	ug/L	P359974	
		Triclopyr**	0.0040	U	ug/L	P359974	

Ref. Method and Comment:
EPA 8321B: MS accuracy for acesulfame K could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: WOLF BRANCH CANAL @ MANNS HARBOR DRIVE BOAT LIFT **Collection Date/Time: 03/07/2019 10:20**

Field ID: G1SW0092 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2068485	EPA 180.1 Rev. 2.0	Turbidity	2.7	Q	NTU	P360387	
	EPA 300.0	Bromide	35		mg Br/L	P360483	
	SM 2320 B-97	Total Alkalinity	114		mg CaCO3/L	P360331	
	SM 2540 D-97	TSS	3	I	mg/L	P360662	
	SM 4500 F-C-97	Fluoride	0.78		mg F/L	P360340	
2068490	EPA 350.1 Rev. 2.0	Ammonia-N	0.089		mg N/L	P360422	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.65		mg N/L	P360393	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.034		mg N/L	P360548	
	EPA 365.1 Rev. 2.0	Total-P	0.20		mg P/L	P360443	
	SM 5310 B-00	Organic Carbon	6.9		mg C/L	P360754	
2068495	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.15		mg P/L	P360166	
2068520	EPA 8321B	Acesulfame K**	0.10	U	ug/L	P360189	
		2,4-D	0.046		ug/L	P360131	
		AMPA**	0.10	UJ	ug/L	P360189	SUR
		Sucralose**	0.62		ug/L	P360189	
		Endothall**	0.25	U	ug/L	P360189	
		Acetaminophen**	0.0080	U	ug/L	P360131	
		Glufosinate**	0.10	UJ	ug/L	P360189	SUR
		Bentazon	0.031		ug/L	P360131	
		Glyphosate**	0.10	UJ	ug/L	P360189	SUR
		Carbamazepine**	9.3E-04	I	ug/L	P360131	
		Diuron	0.0035	I	ug/L	P360131	
		Fenuron	0.016	U	ug/L	P360131	
		Fluridone**	0.11		ug/L	P360131	
		Imazapyr**	0.015	I	ug/L	P360131	
		Hydrocodone**	0.0020	U	ug/L	P360131	
		Ibuprofen**	0.020	U	ug/L	P360131	
		Imidacloprid	0.014		ug/L	P360131	MS
		Linuron	0.0040	U	ug/L	P360131	
		MCPP	0.023		ug/L	P360131	MS
		Naproxen**	0.0080	U	ug/L	P360131	
		Primidone**	0.0040	I	ug/L	P360131	
		Pyraclostrobin**	0.0020	U	ug/L	P360131	
		Triclopyr**	0.0040	U	ug/L	P360131	

Ref. Method and Comment:
EPA 180.1 Rev. 2.0: The sample was analyzed out of holding time because of analytical difficulties.
EPA 8321B: MS accuracy for acesulfame K could not be assessed due to high concentration of parameter in the spiked sample. Refer to the narrative for an explanation of QC Codes. Surrogate spike recovery exceeding the control limits. Results confirmed in sample duplicate.

Sample Location: WOLF BRANCH CANAL @ MANNS HARBOR DRIVE BOAT LIFT **Collection Date/Time: 03/07/2019 10:25**

Field ID: G1SW0092_DUP Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2068486	EPA 180.1 Rev. 2.0	Turbidity	2.8		NTU	P360148	
	EPA 300.0	Bromide	35		mg Br/L	P360483	
	SM 2320 B-97	Total Alkalinity	115	A	mg CaCO3/L	P360331	
	SM 2540 D-97	TSS	4	I	mg/L	P360662	
	SM 4500 F-C-97	Fluoride	0.80		mg F/L	P360340	
2068491	EPA 350.1 Rev. 2.0	Ammonia-N	0.091		mg N/L	P360422	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.59		mg N/L	P360393	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.034		mg N/L	P360548	
	EPA 365.1 Rev. 2.0	Total-P	0.20		mg P/L	P360443	
	SM 5310 B-00	Organic Carbon	6.8		mg C/L	P360754	
2068496	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.18		mg P/L	P360166	
2068521	EPA 8321B	Acesulfame K**	0.10	U	ug/L	P360189	
		2,4-D	0.047		ug/L	P360131	
		AMPA**	0.10	UJ	ug/L	P360189	SUR
		Sucralose**	0.63		ug/L	P360189	
		Endothall**	0.25	U	ug/L	P360189	
		Acetaminophen**	0.0080	U	ug/L	P360131	
		Glufosinate**	0.10	UJ	ug/L	P360189	SUR
		Bentazon	0.032		ug/L	P360131	
		Glyphosate**	0.10	UJ	ug/L	P360189	SUR
		Carbamazepine**	8.8E-04	I	ug/L	P360131	
		Diuron	0.0037	I	ug/L	P360131	
		Fenuron	0.016	U	ug/L	P360131	
		Fluridone**	0.10		ug/L	P360131	
		Imazapyr**	0.015	I	ug/L	P360131	
		Hydrocodone**	0.0020	U	ug/L	P360131	
		Ibuprofen**	0.020	U	ug/L	P360131	
		Imidacloprid	0.014		ug/L	P360131	MS
		Linuron	0.0040	U	ug/L	P360131	
		MCPP	0.022		ug/L	P360131	MS
		Naproxen**	0.0080	U	ug/L	P360131	
		Primidone**	0.0040	U	ug/L	P360131	
		Pyraclostrobin**	0.0020	U	ug/L	P360131	
		Triclopyr**	0.0040	U	ug/L	P360131	

Ref. Method and Comment:
EPA 8321B: MS accuracy for acesulfame K could not be assessed due to high concentration of parameter in the spiked sample. Refer to the narrative for an explanation of QC Codes. Surrogate spike recovery exceeding the control limits. Results confirmed in sample duplicate.

Sample Location: FIELD **Collection Date/Time: 03/07/2019 10:00**

Field ID: FB 03072019 Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2068487	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P360148	
	EPA 300.0	Bromide	0.013	U	mg Br/L	P360571	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P360800	
	SM 2540 D-97	TSS	2	U	mg/L	P360658	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P360803	
2068492	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P360424	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P360391	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P360358	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P360439	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P360634	
2068497	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P360166	
2068522	EPA 8321B	Acesulfame K**	0.10	U	ug/L	P360189	
		2,4-D	0.0020	U	ug/L	P360131	
		AMPA**	0.10	U	ug/L	P360189	
		Sucralose**	0.010	U	ug/L	P360189	
		Endothall**	0.25	U	ug/L	P360189	
		Acetaminophen**	0.0080	U	ug/L	P360131	
		Glufosinate**	0.10	U	ug/L	P360189	
		Glyphosate**	0.10	U	ug/L	P360189	
		Bentazon	8.0E-04	U	ug/L	P360131	
		Carbamazepine**	8.0E-04	U	ug/L	P360131	
		Diuron	0.0020	U	ug/L	P360131	
		Fenuron	0.016	U	ug/L	P360131	
		Fluridone**	8.0E-04	U	ug/L	P360131	
		Imazapyr**	0.0040	U	ug/L	P360131	
		Hydrocodone**	0.0020	U	ug/L	P360131	
		Ibuprofen**	0.020	U	ug/L	P360131	
		Imidacloprid	0.0020	U	ug/L	P360131	MS
		Linuron	0.0040	U	ug/L	P360131	
		MCPP	0.0020	U	ug/L	P360131	MS
		Naproxen**	0.0080	U	ug/L	P360131	
		Primidone**	0.0040	U	ug/L	P360131	
		Pyraclostrobin**	0.0020	U	ug/L	P360131	
		Triclopyr**	0.0040	U	ug/L	P360131	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.
EPA 8321B: MS accuracy for acesulfame K could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: BIGGEST FLOWING DITCH @ 45TH **Collection Date/Time: 03/07/2019 08:50**

Field ID: G1SW0093 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2068488	EPA 180.1 Rev. 2.0	Turbidity	6.7		NTU	P360148	
	EPA 300.0	Bromide	0.21		mg Br/L	P360571	
	SM 2320 B-97	Total Alkalinity	189		mg CaCO3/L	P360800	
	SM 2540 D-97	TSS	4	I	mg/L	P360658	
	SM 4500 F-C-97	Fluoride	0.28		mg F/L	P360803	
2068493	EPA 350.1 Rev. 2.0	Ammonia-N	0.24		mg N/L	P360424	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.90		mg N/L	P360391	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.18		mg N/L	P360358	
	EPA 365.1 Rev. 2.0	Total-P	0.27		mg P/L	P360439	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P360634	
2068498	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.17		mg P/L	P360165	
2068523	EPA 8321B	Acesulfame K**	0.95		ug/L	P360189	
		2,4-D	0.023		ug/L	P360131	
		AMPA**	0.12	I	ug/L	P360189	
		Sucralose**	0.46		ug/L	P360189	
		Endothall**	0.25	U	ug/L	P360189	
		Acetaminophen**	0.0080	U	ug/L	P360131	
		Glufosinate**	0.10	U	ug/L	P360189	
		Glyphosate**	0.10	U	ug/L	P360189	
		Bentazon	0.031		ug/L	P360131	
		Carbamazepine**	0.0041		ug/L	P360131	
		Diuron	0.0036	I	ug/L	P360131	
		Fenuron	0.016	U	ug/L	P360131	
		Fluridone**	8.0E-04	U	ug/L	P360131	
		Imazapyr**	0.035		ug/L	P360131	
		Hydrocodone**	0.0020	U	ug/L	P360131	
		Ibuprofen**	0.020	U	ug/L	P360131	
		Imidacloprid	0.010		ug/L	P360131	MS
		Linuron	0.0040	U	ug/L	P360131	
		MCPP	0.013		ug/L	P360131	MS
		Naproxen**	0.0080	U	ug/L	P360131	
		Primidone**	0.0045	I	ug/L	P360131	
		Pyraclostrobin**	0.0020	U	ug/L	P360131	
		Triclopyr**	0.0040	U	ug/L	P360131	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.
EPA 8321B: MS accuracy for acesulfame K could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: SANDBAG DITCH @ 45TH **Collection Date/Time: 03/07/2019 09:00**

Field ID: G1SW0094 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2068489	EPA 180.1 Rev. 2.0	Turbidity	9.0		NTU	P360148	
	EPA 300.0	Bromide	11		mg Br/L	P360483	
	SM 2320 B-97	Total Alkalinity	356	A	mg CaCO3/L	P360330	
	SM 2540 D-97	TSS	10		mg/L	P360662	
	SM 4500 F-C-97	Fluoride	0.67		mg F/L	P360336	
2068494	EPA 350.1 Rev. 2.0	Ammonia-N	0.13		mg N/L	P360422	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.5		mg N/L	P360393	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P360548	
	EPA 365.1 Rev. 2.0	Total-P	0.45		mg P/L	P360443	
	SM 5310 B-00	Organic Carbon	22		mg C/L	P360754	
2068499	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.32		mg P/L	P360166	
2068524	EPA 8321B	Acesulfame K**	0.89		ug/L	P360189	
		2,4-D	0.0023	I	ug/L	P360131	
		AMPA**	0.10	UJ	ug/L	P360189	SUR
		Sucralose**	0.87		ug/L	P360189	
		Endothall**	0.25	U	ug/L	P360189	
		Acetaminophen**	0.028	I	ug/L	P360131	
		Glufosinate**	0.10	UJ	ug/L	P360189	SUR
		Bentazon	0.0011	I	ug/L	P360131	
		Glyphosate**	0.10	UJ	ug/L	P360189	SUR
		Carbamazepine**	8.0E-04	U	ug/L	P360131	
		Diuron	0.0054	I	ug/L	P360131	
		Fenuron	0.016	U	ug/L	P360131	
		Fluridone**	8.0E-04	U	ug/L	P360131	
		Imazapyr**	0.0083	I	ug/L	P360131	
		Hydrocodone**	0.0020	U	ug/L	P360131	
		Ibuprofen**	0.054	I	ug/L	P360131	
		Imidacloprid	0.0020	U	ug/L	P360131	MS
		Linuron	0.0040	U	ug/L	P360131	
		MCPP	0.0020	U	ug/L	P360131	MS
		Naproxen**	0.017	I	ug/L	P360131	
		Primidone**	0.027		ug/L	P360131	
		Pyraclostrobin**	0.0020	U	ug/L	P360131	
		Triclopyr**	0.0040	U	ug/L	P360131	

Ref. Method and Comment:
EPA 8321B: MS accuracy for acesulfame K could not be assessed due to high concentration of parameter in the spiked sample. Refer to the narrative for an explanation of QC Codes. Surrogate spike recovery exceeding the control limits. Results confirmed in re-extraction.

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P360148

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P360387

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0
Batch ID: P360483

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Reference Method: EPA 300.0
Batch ID: P360571

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P360422

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P360424

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P360391

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P360393

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P360358

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P360548

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P360439

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P360443

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P360165

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P360166

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

Reference Method: EPA 8321B
Batch ID: P359974

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Bentazon	8.0E-04	U	ug/L
Carbamazepine	8.0E-04	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
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P360131

Component	Result	Code	Units

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8321B
Batch ID: P360131

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Bentazon	8.0E-04	U	ug/L
Carbamazepine	8.0E-04	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
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P360189

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: SM 2320 B-97
Batch ID: P360330

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

Reference Method: SM 2320 B-97
Batch ID: P360331

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

Reference Method: SM 2320 B-97
Batch ID: P360800

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

Reference Method: SM 2540 D-97
Batch ID: P360658

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report
Method Blank Results

Reference Method: SM 2540 D-97
Batch ID: P360662

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P360336

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P360340

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P360803

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P360634

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

Reference Method: SM 5310 B-00
Batch ID: P360754

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 300.0
Batch ID: P360483

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

Reference Method: EPA 300.0
Batch ID: P360571

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Bromide	97.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P360422

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	98.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P360424

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P360391

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P360393

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P360358

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: P360548

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P360439

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P360443

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P360165

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P360166

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

Reference Method: EPA 8321B
Batch ID: P359974

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	96.4		P	40 - 150
Acetaminophen	91.2		P	30 - 150
Bentazon	102		P	30 - 150
Carbamazepine	89.4		P	40 - 150
Diuron	83.3		P	40 - 150
Fenuron	109		P	40 - 150
Fluridone	103		P	40 - 150
Hydrocodone	105		P	40 - 150
Ibuprofen	99.3		P	40 - 150
Imazapyr	106		P	40 - 150
Imidacloprid	99.3		P	40 - 150
Linuron	75.2		P	40 - 150
MCPP	106		P	40 - 150
Naproxen	61.5		P	40 - 150
Primidone	89.8		P	40 - 150
Pyraclostrobin	60.9		P	40 - 150
Triclopyr	70.0		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P360131

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	97.9		P	40 - 150
Acetaminophen	80.2		P	30 - 150
Bentazon	91.3		P	30 - 150
Carbamazepine	96.3		P	40 - 150
Diuron	72.2		P	40 - 150
Fenuron	129		P	40 - 150
Fluridone	115		P	40 - 150
Hydrocodone	119		P	40 - 150
Ibuprofen	82.7		P	40 - 150
Imazapyr	111		P	40 - 150
Imidacloprid	107		P	40 - 150
Linuron	77.4		P	40 - 150

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P360131

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
MCPP	126		P	40 - 150
Naproxen	66.3		P	40 - 150
Primidone	111		P	40 - 150
Pyraclostrobin	67.2		P	40 - 150
Triclopyr	65.1		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P360189

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	101		P	40 - 150
AMPA	103		P	40 - 150
Endothall	96.7		P	40 - 150
Glufosinate	141		P	40 - 150
Glyphosate	108		P	40 - 140
Sucralose	97.0		P	40 - 150

Reference Method: SM 2320 B-97
Batch ID: P360330

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	98 - 107

Reference Method: SM 2320 B-97
Batch ID: P360331

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	98 - 107

Reference Method: SM 2320 B-97
Batch ID: P360800

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	98 - 107

Reference Method: SM 4500 F-C-97
Batch ID: P360336

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	94.6		P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P360340

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.6		P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P360803

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.0		P	91 - 105

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-00
Batch ID: P360634

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

Reference Method: SM 5310 B-00
Batch ID: P360754

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.6		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0
Batch ID: P360483

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2068367	Bromide	98.1	98.0	P/P	90 - 110
2068489	Bromide	101		P	90 - 110

Reference Method: EPA 300.0
Batch ID: P360571

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2068488	Bromide	98.9	95.8	P/P	90 - 110
2068891	Bromide	98.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P360422

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2068369	Ammonia-N	93.9	96.4	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P360424

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2068365	Ammonia-N	99.8	98.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P360393

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2068490	Kjeldahl Nitrogen	99.6	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P360358

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2068304	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P360548

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2068422	NO2NO3-N	98.5	98.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P360439

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2068493	Total-P	98.1	98.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P360443

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2068461	Total-P	98.5	95.6	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P360165

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2068288	O-Phosphate-P	93.9	94.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P360166

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2068388	O-Phosphate-P	94.2	94.7	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P359974

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2068137	2,4-D	104	102	P/P	40 - 150
2068137	Acetaminophen	94.9	104	P/P	30 - 150
2068137	Bentazon	64.1	73.6	P/P	30 - 150
2068137	Carbamazepine	64.3	67.3	P/P	40 - 150
2068137	Diuron	50.5	61.2	P/P	40 - 150
2068137	Fenuron	76.4	78.9	P/P	40 - 150
2068137	Fluridone	96.4	103	P/P	40 - 150
2068137	Hydrocodone	96.5	101	P/P	40 - 150
2068137	Ibuprofen	117	117	P/P	40 - 150
2068137	Imazapyr	93.2	101	P/P	40 - 150
2068137	Imidacloprid	131	141	P/P	40 - 150
2068137	Linuron	65.2	68.3	P/P	40 - 150
2068137	MCPP	141	145	P/P	40 - 150
2068137	Naproxen	50.6	74.0	P/P	40 - 150
2068137	Primidone	81.8	87.8	P/P	40 - 150
2068137	Pyraclostrobin	69.1	71.3	P/P	40 - 150
2068137	Triclopyr	98.0	83.3	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P360131

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2069006	2,4-D	119	92.7	P/P	40 - 150
2069006	Acetaminophen	118	116	P/P	30 - 150
2069006	Bentazon	77.2	61.1	P/P	30 - 150
2069006	Carbamazepine	87.2	74.3	P/P	40 - 150
2069006	Diuron	62.3	58.5	P/P	40 - 150
2069006	Fenuron	123	118	P/P	40 - 150
2069006	Fluridone	124	111	P/P	40 - 150
2069006	Hydrocodone	117	118	P/P	40 - 150
2069006	Ibuprofen	78.8	69.2	P/P	40 - 150
2069006	Imazapyr	138	114	P/P	40 - 150
2069006	Imidacloprid	197	183	F/F	40 - 150
2069006	Linuron	72.6	73.4	P/P	40 - 150
2069006	MCPP	162	142	F/P	40 - 150
2069006	Naproxen	85.7	74.9	P/P	40 - 150
2069006	Primidone	125	104	P/P	40 - 150
2069006	Pyraclostrobin	77.3	65.8	P/P	40 - 150
2069006	Triclopyr	88.4	72.6	P/P	40 - 150

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P360189

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2068137	AMPA	93.1	97.8	P/P	40 - 150
2068137	Endothall	95.6	97.3	P/P	40 - 150
2068137	Glufosinate	109	109	P/P	40 - 150
2068137	Glyphosate	115	109	P/P	40 - 140
2068137	Sucralose	104	101	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P360336

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2068489	Fluoride	92.4	93.2	P/P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P360340

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2068486	Fluoride	93.2	93.2	P/P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P360803

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2068696	Fluoride	96.1	96.1	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P360634

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2068286	Organic Carbon	97.2	97.1	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P360754

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2068416	Organic Carbon	91.7	93.9	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P360148

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2068385	Turbidity	8.36	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P360387

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2069344	Turbidity	10.5	Sample	P	0 - 20

Reference Method: EPA 300.0
Batch ID: P360483

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2068367	Bromide	0.0893	Spike	P	0 - 20

Reference Method: EPA 300.0
Batch ID: P360571

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2068488	Bromide	2.25	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P360422

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2068369	Ammonia-N	2.00	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P360424

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2068365	Ammonia-N	0.748	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P360391

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2068305	Kjeldahl Nitrogen	12.9	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P360393

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2068490	Kjeldahl Nitrogen	0.707	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P360358

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2068304	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P360548

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2068422	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P360439

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2068493	Total-P	0.0303	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P360443

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2068461	Total-P	2.96	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P360165

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2068288	O-Phosphate-P	0.711	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P360166

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2068388	O-Phosphate-P	0.411	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P359974

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2068137	2,4-D	1.83	Spike	P	0 - 30
2068137	Acetaminophen	8.68	Spike	P	0 - 30
2068137	Bentazon	10.9	Spike	P	0 - 30
2068137	Carbamazepine	4.52	Spike	P	0 - 30
2068137	Diuron	19.3	Spike	P	0 - 30
2068137	Fenuron	3.23	Spike	P	0 - 30
2068137	Fluridone	5.87	Spike	P	0 - 30
2068137	Hydrocodone	4.60	Spike	P	0 - 30
2068137	Ibuprofen	0.237	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P359974

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2068137	Imazapyr	6.39	Spike	P	0 - 30
2068137	Imidacloprid	4.35	Spike	P	0 - 30
2068137	Linuron	4.65	Spike	P	0 - 30
2068137	MCPP	2.52	Spike	P	0 - 30
2068137	Naproxen	37.6	Spike	F	0 - 30
2068137	Primidone	7.01	Spike	P	0 - 30
2068137	Pyraclostrobin	3.07	Spike	P	0 - 30
2068137	Triclopyr	16.3	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P360131

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2069006	2,4-D	23.0	Spike	P	0 - 30
2069006	Acetaminophen	1.77	Spike	P	0 - 30
2069006	Bentazon	9.24	Spike	P	0 - 30
2069006	Carbamazepine	15.9	Spike	P	0 - 30
2069006	Diuron	3.15	Spike	P	0 - 30
2069006	Fenuron	4.26	Spike	P	0 - 30
2069006	Fluridone	6.68	Spike	P	0 - 30
2069006	Hydrocodone	1.12	Spike	P	0 - 30
2069006	Ibuprofen	13.0	Spike	P	0 - 30
2069006	Imazapyr	9.49	Spike	P	0 - 30
2069006	Imidacloprid	6.77	Spike	P	0 - 30
2069006	Linuron	1.17	Spike	P	0 - 30
2069006	MCPP	12.8	Spike	P	0 - 30
2069006	Naproxen	13.5	Spike	P	0 - 30
2069006	Primidone	18.2	Spike	P	0 - 30
2069006	Pyraclostrobin	15.3	Spike	P	0 - 30
2069006	Triclopyr	19.7	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P360189

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2068137	Acesulfame K	12.7	Spike	P	0 - 30
2068137	AMPA	4.15	Spike	P	0 - 30
2068137	Endothall	1.78	Spike	P	0 - 30
2068137	Glufosinate	0.448	Spike	P	0 - 30
2068137	Glyphosate	4.97	Spike	P	0 - 30
2068137	Sucralose	2.67	Spike	P	0 - 30

Reference Method: SM 2320 B-97
Batch ID: P360330

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2068489	Total Alkalinity	0.0764	Sample	P	0 - 1.6

Quality Assurance Report
Precision

Reference Method: SM 2320 B-97
Batch ID: P360331

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2068486	Total Alkalinity	0.458	Sample	P	0 - 1.6

Reference Method: SM 2320 B-97
Batch ID: P360800

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2068696	Total Alkalinity	0.611	Sample	P	0 - 1.6

Reference Method: SM 2540 D-97
Batch ID: P360662

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2068385	TSS	6.35	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P360336

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2068489	Fluoride	0.473	Spike	P	0 - 3.5

Reference Method: SM 4500 F-C-97
Batch ID: P360340

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2068486	Fluoride	0.0	Spike	P	0 - 3.5

Reference Method: SM 4500 F-C-97
Batch ID: P360803

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2068696	Fluoride	0.0	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
Batch ID: P360634

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2068286	Organic Carbon	0.137	Spike	P	0 - 20

Reference Method: SM 5310 B-00
Batch ID: P360754

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2068416	Organic Carbon	1.96	Spike	P	0 - 20

Quality Assurance Report
Precision

* Sample, spike and/or laboratory control sample precision (LCS) is reported.
Replicate spike precision may be reported when sample results are below quantifiable levels.

Quality Assurance Report
Surrogates

Lab Sample ID: 2068518
Field Sample ID: G2SW0032

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	96.3	P	30 - 160
EPA 8321B	Acetaminophen-d4	74.7	P	30 - 160
EPA 8321B	Carbamazepine-d10	68.6	P	30 - 160
EPA 8321B	Diuron-d6	69.8	P	30 - 160
EPA 8321B	Endothall-d6	105	P	30 - 160
EPA 8321B	Endothall-d6	105	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	92.7	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	92.7	P	30 - 160
EPA 8321B	Ibuprofen-d3	80.2	P	30 - 160
EPA 8321B	Primidone-d5	84.9	P	30 - 160
EPA 8321B	Sucralose-d6	94.7	P	30 - 160
EPA 8321B	Sucralose-d6	94.7	P	30 - 160

Lab Sample ID: 2068519
Field Sample ID: G2SW0096

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	107	P	30 - 160
EPA 8321B	Acetaminophen-d4	81.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	64.1	P	30 - 160
EPA 8321B	Diuron-d6	65.3	P	30 - 160
EPA 8321B	Endothall-d6	125	P	30 - 160
EPA 8321B	Endothall-d6	125	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	87.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	87.6	P	30 - 160
EPA 8321B	Ibuprofen-d3	69.4	P	30 - 160
EPA 8321B	Primidone-d5	86.1	P	30 - 160
EPA 8321B	Sucralose-d6	104	P	30 - 160
EPA 8321B	Sucralose-d6	104	P	30 - 160

Lab Sample ID: 2068520
Field Sample ID: G1SW0092

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	84.3	P	30 - 160
EPA 8321B	Acetaminophen-d4	95.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	77.2	P	30 - 160
EPA 8321B	Diuron-d6	61.5	P	30 - 160
EPA 8321B	Endothall-d6	101	P	30 - 160
EPA 8321B	Endothall-d6	101	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	0.0	F	30 - 160
EPA 8321B	Glyphosate 13C 15N	0.0	F	30 - 160
EPA 8321B	Ibuprofen-d3	72.8	P	30 - 160
EPA 8321B	Primidone-d5	98.0	P	30 - 160
EPA 8321B	Sucralose-d6	95.1	P	30 - 160
EPA 8321B	Sucralose-d6	95.1	P	30 - 160

Lab Sample ID: 2068521
Field Sample ID: G1SW0092_DUP

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	86.0	P	30 - 160

Quality Assurance Report
Surrogates

Lab Sample ID: 2068521
Field Sample ID: G1SW0092_DUP

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	70.7	P	30 - 160
EPA 8321B	Carbamazepine-d10	72.7	P	30 - 160
EPA 8321B	Diuron-d6	67.2	P	30 - 160
EPA 8321B	Endothall-d6	92.0	P	30 - 160
EPA 8321B	Endothall-d6	92.0	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	0.0	F	30 - 160
EPA 8321B	Glyphosate 13C 15N	0.0	F	30 - 160
EPA 8321B	Ibuprofen-d3	69.4	P	30 - 160
EPA 8321B	Primidone-d5	87.2	P	30 - 160
EPA 8321B	Sucralose-d6	94.0	P	30 - 160
EPA 8321B	Sucralose-d6	94.0	P	30 - 160

Lab Sample ID: 2068522
Field Sample ID: FB 03072019

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	67.8	P	30 - 160
EPA 8321B	Acetaminophen-d4	90.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	78.9	P	30 - 160
EPA 8321B	Diuron-d6	73.8	P	30 - 160
EPA 8321B	Endothall-d6	99.6	P	30 - 160
EPA 8321B	Endothall-d6	99.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	69.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	69.5	P	30 - 160
EPA 8321B	Ibuprofen-d3	56.6	P	30 - 160
EPA 8321B	Primidone-d5	87.3	P	30 - 160
EPA 8321B	Sucralose-d6	103	P	30 - 160
EPA 8321B	Sucralose-d6	103	P	30 - 160

Lab Sample ID: 2068523
Field Sample ID: G1SW0093

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	82.8	P	30 - 160
EPA 8321B	Acetaminophen-d4	82.7	P	30 - 160
EPA 8321B	Carbamazepine-d10	65.1	P	30 - 160
EPA 8321B	Diuron-d6	59.0	P	30 - 160
EPA 8321B	Endothall-d6	115	P	30 - 160
EPA 8321B	Endothall-d6	115	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	76.7	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	76.7	P	30 - 160
EPA 8321B	Ibuprofen-d3	71.3	P	30 - 160
EPA 8321B	Primidone-d5	66.8	P	30 - 160
EPA 8321B	Sucralose-d6	104	P	30 - 160
EPA 8321B	Sucralose-d6	104	P	30 - 160

Lab Sample ID: 2068524
Field Sample ID: G1SW0094

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	67.7	P	30 - 160
EPA 8321B	Acetaminophen-d4	83.5	P	30 - 160

Quality Assurance Report
Surrogates

Lab Sample ID: 2068524
Field Sample ID: G1SW0094

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbamazepine-d10	60.8	P	30 - 160
EPA 8321B	Diuron-d6	47.7	P	30 - 160
EPA 8321B	Endothall-d6	85.5	P	30 - 160
EPA 8321B	Endothall-d6	85.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	4.74	F	30 - 160
EPA 8321B	Glyphosate 13C 15N	4.74	F	30 - 160
EPA 8321B	Ibuprofen-d3	73.0	P	30 - 160
EPA 8321B	Primidone-d5	66.8	P	30 - 160
EPA 8321B	Sucralose-d6	104	P	30 - 160
EPA 8321B	Sucralose-d6	104	P	30 - 160

Quality Assurance Report
Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A89903
Included Lab Sample IDs: 2068486, 2068487, 2068488, 2068489

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	101	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A89909
Included Lab Sample IDs: 2068495, 2068496, 2068497, 2068498, 2068499

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.7	94.5	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A89922
Included Lab Sample IDs: 2068518, 2068519

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	70.7	108	P/P	50 - 150
Acetaminophen	123	118	P/P	60 - 160
Bentazon	123	132	P/P	50 - 160
Carbamazepine	106	109	P/P	60 - 150
Diuron	116	90.2	P/P	60 - 150
Fenuron	110	104	P/P	60 - 150
Fluridone	119	122	P/P	60 - 160
Hydrocodone	118	112	P/P	60 - 150
Ibuprofen	109	134	P/P	50 - 160
Imazapyr	101	98.5	P/P	50 - 150
Imidacloprid	95.7	98.6	P/P	60 - 150
Linuron	116	116	P/P	60 - 150
MCPP	117	121	P/P	50 - 150
Naproxen	112	125	P/P	50 - 160
Primidone	104	102	P/P	60 - 150
Pyraclostrobin	94.9	101	P/P	60 - 150
Triclopyr	115	106	P/P	50 - 150

Reference Method: SM 2320 B-97
Run ID: A89980
Included Lab Sample IDs: 2068485, 2068486, 2068489

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	103	99.6	P/P	90 - 110
Total Alkalinity	103	100	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A89980
Included Lab Sample IDs: 2068485, 2068486, 2068489

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	98.6	97.6	P/P	90 - 110
Fluoride	99.1	98.6	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A89981
Included Lab Sample IDs: 2068492, 2068493

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

Reference Method: EPA 8321B
Run ID: A89982
Included Lab Sample IDs: 2068518, 2068519, 2068520, 2068521, 2068522, 2068523, 2068524

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	91.3	73.9	P/P	60 - 160
Endothall	89.9	84.7	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A89984
Included Lab Sample IDs: 2068518, 2068519, 2068520, 2068521, 2068522, 2068523, 2068524

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	107	93.9	P/P	60 - 160
Glufosinate	129	128	P/P	60 - 160
Glyphosate	116	117	P/P	60 - 160

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A89988
Included Lab Sample IDs: 2068485

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A90009
Included Lab Sample IDs: 2068490, 2068491, 2068492, 2068493, 2068494

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	106	P/P	90 - 110
Kjeldahl Nitrogen	106	105	P/P	90 - 110
Kjeldahl Nitrogen	99.3	103	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A90011
Included Lab Sample IDs: 2068490, 2068491, 2068492, 2068493, 2068494

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	98.8	P/P	90 - 110
Ammonia-N	100	100	P/P	90 - 110
Ammonia-N	101	99.4	P/P	90 - 110

Reference Method: EPA 300.0
Run ID: A90025
Included Lab Sample IDs: 2068485, 2068486, 2068487, 2068488, 2068489

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 300.0
Run ID: A90025
Included Lab Sample IDs: 2068485, 2068486, 2068487, 2068488, 2068489

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bromide	94.4	96.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A90032
Included Lab Sample IDs: 2068490, 2068491, 2068493, 2068494

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	101	99.8	P/P	90 - 110
Total-P	101	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A90046
Included Lab Sample IDs: 2068492

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

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A90047
Included Lab Sample IDs: 2068490, 2068491, 2068494

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	99.0	99.5	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A90049
Included Lab Sample IDs: 2068518, 2068519, 2068520, 2068521, 2068522, 2068523, 2068524

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	97.0	95.7	P/P	60 - 160

Reference Method: SM 5310 B-00
Run ID: A90082
Included Lab Sample IDs: 2068492, 2068493

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	94.4	96.1	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A90091
Included Lab Sample IDs: 2068520, 2068521, 2068522, 2068523, 2068524

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	94.6	93.3	P/P	50 - 150
Acetaminophen	108	102	P/P	60 - 160
Bentazon	94.0	95.7	P/P	50 - 160
Carbamazepine	109	108	P/P	60 - 150
Diuron	110	110	P/P	60 - 150
Fenuron	110	112	P/P	60 - 150
Fluridone	111	115	P/P	60 - 160
Hydrocodone	114	116	P/P	60 - 150

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A90091
Included Lab Sample IDs: 2068520, 2068521, 2068522, 2068523, 2068524

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ibuprofen	91.4	80.0	P/P	50 - 160
Imazapyr	90.8	88.4	P/P	50 - 150
Imidacloprid	100	109	P/P	60 - 150
Linuron	105	87.6	P/P	60 - 150
MCPP	97.8	92.4	P/P	50 - 150
Naproxen	81.2	97.7	P/P	50 - 160
Primidone	103	80.3	P/P	60 - 150
Pyraclostrobin	101	95.9	P/P	60 - 150
Triclopyr	110	98.7	P/P	50 - 150

Reference Method: SM 5310 B-00
Run ID: A90118
Included Lab Sample IDs: 2068490, 2068491, 2068494

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	93.6	94.6	P/P	90 - 110

Reference Method: SM 2320 B-97
Run ID: A90132
Included Lab Sample IDs: 2068487, 2068488

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	99.3	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A90132
Included Lab Sample IDs: 2068487, 2068488

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	98.1	99.5	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						8.36	
	Turbidity						10.5	
EPA 300.0	Bromide	104	98.1	98.0	101			0.0893
	Bromide	97.8	98.9	95.8	98.0			2.25
EPA 350.1 Rev. 2.0	Ammonia-N	98.6	93.9	96.4				2.00
	Ammonia-N	97.8	99.8	98.6				0.748
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.7						12.9
	Kjeldahl Nitrogen	104	99.6	100				0.707
EPA 353.2 Rev. 2.0	NO2NO3-N	100	102	102				0.0
	NO2NO3-N	101	98.5	98.5				0.0
EPA 365.1 Rev. 2.0	Total-P	100	98.1	98.2				0.0303
	Total-P	101	98.5	95.6				2.96
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.0	93.9	94.6				0.711
	O-Phosphate-P	98.0	94.2	94.7				0.411
EPA 8321B	2,4-D	96.4	104	102				1.83
	2,4-D	97.9	119	92.7				23.0
	Acesulfame K	101						12.7
	Acetaminophen	91.2	94.9	104				8.68
	Acetaminophen	80.2	118	116				1.77
	AMPA	103	93.1	97.8				4.15
	Bentazon	102	64.1	73.6				10.9
	Bentazon	91.3	77.2	61.1				9.24
	Carbamazepine	89.4	64.3	67.3				4.52
	Carbamazepine	96.3	87.2	74.3				15.9
	Diuron	83.3	50.5	61.2				19.3
	Diuron	72.2	62.3	58.5				3.15
	Endothall	96.7	95.6	97.3				1.78
	Fenuron	109	76.4	78.9				3.23
	Fenuron	129	123	118				4.26
	Fluridone	103	96.4	103				5.87
	Fluridone	115	124	111				6.68
	Glufosinate	141	109	109				0.448
	Glyphosate	108	115	109				4.97
	Hydrocodone	105	96.5	101				4.60
	Hydrocodone	119	117	118				1.12
	Ibuprofen	99.3	117	117				0.237
	Ibuprofen	82.7	78.8	69.2				13.0
	Imazapyr	106	93.2	101				6.39
	Imazapyr	111	138	114				9.49
	Imidacloprid	99.3	131	141				4.35
	Imidacloprid	107	197	183				6.77
	Linuron	75.2	65.2	68.3				4.65
	Linuron	77.4	72.6	73.4				1.17
	MCPP	106	141	145				2.52
	MCPP	126	162	142				12.8
	Naproxen	61.5	50.6	74.0				37.6
	Naproxen	66.3	85.7	74.9				13.5
	Primidone	89.8	81.8	87.8				7.01
	Primidone	111	125	104				18.2
	Pyraclostrobin	60.9	69.1	71.3				3.07
	Pyraclostrobin	67.2	77.3	65.8				15.3
	Sucralose	97.0	104	101				2.67
	Triclopyr	70.0	98.0	83.3				16.3
	Triclopyr	65.1	88.4	72.6				19.7

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
SM 2320 B-97	Total Alkalinity	103				0.0764	
	Total Alkalinity	102				0.458	
	Total Alkalinity	101				0.611	
SM 2540 D-97	TSS					6.35	
SM 4500 F-C-97	Fluoride	94.6	92.4	93.2			0.473
	Fluoride	95.6	93.2	93.2			0.0
	Fluoride	96.0	96.1	96.1			0.0
SM 5310 B-00	Organic Carbon	100	97.2	97.1			0.137
	Organic Carbon	96.6	91.7	93.9			1.96

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2068485, 2068486, 2068487, 2068488, 2068489
EPA 300.0 / E31780	Bromide in aqueous matrices	2068485, 2068486, 2068487, 2068488, 2068489
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2068490, 2068491, 2068492, 2068493, 2068494
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2068490, 2068491, 2068492, 2068493, 2068494
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2068490, 2068491, 2068492, 2068493, 2068494
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2068490, 2068491, 2068492, 2068493, 2068494
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2068495, 2068496, 2068497, 2068498, 2068499
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2068518, 2068519, 2068520, 2068521, 2068522, 2068523, 2068524
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2068518, 2068519, 2068520, 2068521, 2068522, 2068523, 2068524
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	2068485, 2068486, 2068487, 2068488, 2068489
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2068485, 2068486, 2068487, 2068488, 2068489
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2068485, 2068486, 2068487, 2068488, 2068489
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2068490, 2068491, 2068492, 2068493, 2068494

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	03/08/2019			03/08/2019 14:48	Adrian Shelby	2068486, 2068487, 2068488, 2068489
	03/08/2019			03/13/2019 16:52	Adrian Shelby	2068485
EPA 300.0	03/08/2019			03/14/2019 18:42	Lipi Saha	2068489
	03/08/2019			03/14/2019 23:49	Lipi Saha	2068485
	03/08/2019			03/15/2019 00:06	Lipi Saha	2068486
	03/08/2019			03/16/2019 12:26	Lipi Saha	2068488
	03/08/2019			03/16/2019 14:08	Lipi Saha	2068487
EPA 350.1 Rev. 2.0	03/08/2019			03/13/2019 11:12	Ping Hua	2068490
	03/08/2019			03/13/2019 11:14	Ping Hua	2068491
	03/08/2019			03/13/2019 11:15	Ping Hua	2068494
	03/08/2019			03/13/2019 11:59	Ping Hua	2068492
	03/08/2019			03/13/2019 13:05	Ping Hua	2068493
EPA 351.2 Rev. 2.0	03/08/2019	03/13/2019 12:00	Adrian Shelby	03/14/2019 10:44	Joseph Suarez	2068492
	03/08/2019	03/13/2019 12:00	Adrian Shelby	03/14/2019 10:49	Joseph Suarez	2068493
	03/08/2019	03/13/2019 12:00	Adrian Shelby	03/14/2019 12:04	Joseph Suarez	2068490
	03/08/2019	03/13/2019 12:00	Adrian Shelby	03/14/2019 12:09	Joseph Suarez	2068491
	03/08/2019	03/13/2019 12:00	Adrian Shelby	03/14/2019 12:10	Joseph Suarez	2068494
EPA 353.2 Rev. 2.0	03/08/2019			03/13/2019 10:58	Beverly Y. Sanders	2068492
	03/08/2019			03/13/2019 10:59	Beverly Y. Sanders	2068493
	03/08/2019			03/14/2019 12:33	Beverly Y. Sanders	2068490
	03/08/2019			03/14/2019 12:34	Beverly Y. Sanders	2068491
	03/08/2019			03/14/2019 12:35	Beverly Y. Sanders	2068494
EPA 365.1 Rev. 2.0	03/08/2019	03/14/2019 13:10	Sima Feizi	03/15/2019 12:23	Rosalyn Ballman	2068493
	03/08/2019	03/14/2019 13:10	Sima Feizi	03/15/2019 13:44	Rosalyn Ballman	2068490
	03/08/2019	03/14/2019 13:10	Sima Feizi	03/15/2019 13:45	Rosalyn Ballman	2068491
	03/08/2019	03/14/2019 13:10	Sima Feizi	03/15/2019 13:46	Rosalyn Ballman	2068494
	03/08/2019	03/14/2019 13:10	Sima Feizi	03/15/2019 16:48	Rosalyn Ballman	2068492
EPA 365.1 Rev. 2.0 dissolved	03/08/2019			03/08/2019 16:44	Jhamieka S. Greenwood	2068497
	03/08/2019			03/08/2019 16:45	Jhamieka S. Greenwood	2068495
	03/08/2019			03/08/2019 16:46	Jhamieka S. Greenwood	2068496, 2068499
	03/08/2019			03/08/2019 16:47	Jhamieka S. Greenwood	2068498
EPA 8321B	03/08/2019	03/08/2019 14:00	Hoor Shaik	03/09/2019 13:52	Juyoung Kim	2068518
	03/08/2019	03/08/2019 14:00	Hoor Shaik	03/09/2019 14:26	Juyoung Kim	2068519
	03/08/2019	03/11/2019 15:00	Rebecca Ware	03/12/2019 04:30	Rebecca Ware	2068518
	03/08/2019	03/11/2019 15:00	Rebecca Ware	03/12/2019 04:44	Rebecca Ware	2068519
	03/08/2019	03/11/2019 15:00	Rebecca Ware	03/12/2019 04:58	Rebecca Ware	2068520
	03/08/2019	03/11/2019 15:00	Rebecca Ware	03/12/2019 05:12	Rebecca Ware	2068521
	03/08/2019	03/11/2019 15:00	Rebecca Ware	03/12/2019 05:26	Rebecca Ware	2068522
	03/08/2019	03/11/2019 15:00	Rebecca Ware	03/12/2019 05:40	Rebecca Ware	2068523
	03/08/2019	03/11/2019 15:00	Rebecca Ware	03/12/2019 05:54	Rebecca Ware	2068524

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	03/08/2019	03/12/2019 08:00	Rebecca Ware	03/12/2019 14:46	Juyoung Kim	2068518
	03/08/2019	03/12/2019 08:00	Rebecca Ware	03/12/2019 14:57	Juyoung Kim	2068519
	03/08/2019	03/12/2019 08:00	Rebecca Ware	03/12/2019 15:07	Juyoung Kim	2068520
	03/08/2019	03/12/2019 08:00	Rebecca Ware	03/12/2019 15:18	Juyoung Kim	2068521
	03/08/2019	03/12/2019 08:00	Rebecca Ware	03/12/2019 15:29	Juyoung Kim	2068522
	03/08/2019	03/12/2019 08:00	Rebecca Ware	03/12/2019 15:39	Juyoung Kim	2068523
	03/08/2019	03/12/2019 08:00	Rebecca Ware	03/12/2019 15:50	Juyoung Kim	2068524
	03/08/2019	03/12/2019 08:00	Rebecca Ware	03/12/2019 22:32	Juyoung Kim	2068518
	03/08/2019	03/12/2019 08:00	Rebecca Ware	03/12/2019 22:46	Juyoung Kim	2068519
	03/08/2019	03/12/2019 08:00	Rebecca Ware	03/12/2019 23:00	Juyoung Kim	2068520
	03/08/2019	03/12/2019 08:00	Rebecca Ware	03/12/2019 23:13	Juyoung Kim	2068521
	03/08/2019	03/12/2019 08:00	Rebecca Ware	03/12/2019 23:27	Juyoung Kim	2068522
	03/08/2019	03/12/2019 08:00	Rebecca Ware	03/12/2019 23:41	Juyoung Kim	2068523
	03/08/2019	03/12/2019 08:00	Rebecca Ware	03/12/2019 23:55	Juyoung Kim	2068524
	03/08/2019	03/13/2019 10:00	Hoor Shaik	03/16/2019 03:24	Juyoung Kim	2068520
	03/08/2019	03/13/2019 10:00	Hoor Shaik	03/16/2019 03:58	Juyoung Kim	2068521
	03/08/2019	03/13/2019 10:00	Hoor Shaik	03/16/2019 04:33	Juyoung Kim	2068522
	03/08/2019	03/13/2019 10:00	Hoor Shaik	03/16/2019 05:07	Juyoung Kim	2068523
	03/08/2019	03/13/2019 10:00	Hoor Shaik	03/16/2019 05:42	Juyoung Kim	2068524
SM 2320 B-97	03/08/2019			03/12/2019 04:28	Dale L. Simmons	2068489
	03/08/2019			03/12/2019 11:33	Dale L. Simmons	2068486
	03/08/2019			03/12/2019 12:10	Dale L. Simmons	2068485
	03/08/2019			03/19/2019 21:58	Dale L. Simmons	2068487
	03/08/2019			03/19/2019 22:13	Dale L. Simmons	2068488
SM 2540 D-97	03/08/2019			03/13/2019 14:03	Yijie Li	2068485, 2068486, 2068487, 2068488, 2068489
SM 4500 F-C-97	03/08/2019			03/12/2019 01:23	Dale L. Simmons	2068489
	03/08/2019			03/12/2019 10:47	Dale L. Simmons	2068486
	03/08/2019			03/12/2019 11:07	Dale L. Simmons	2068485
	03/08/2019			03/19/2019 21:58	Dale L. Simmons	2068487
	03/08/2019			03/19/2019 22:13	Dale L. Simmons	2068488
SM 5310 B-00	03/08/2019			03/18/2019 05:42	Julia Storbeck	2068492
	03/08/2019			03/18/2019 05:55	Julia Storbeck	2068493
	03/08/2019			03/20/2019 05:23	Julia Storbeck	2068490
	03/08/2019			03/20/2019 05:37	Julia Storbeck	2068491
	03/08/2019			03/20/2019 05:50	Julia Storbeck	2068494