Chemical Analysis Report

NE-DIST-2019-11-22-01

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

Event Description: **Bmap 1**
Request ID: **RQ-2019-11-18-18**
Customer: **NE-DIST**
Project ID: **SMP**

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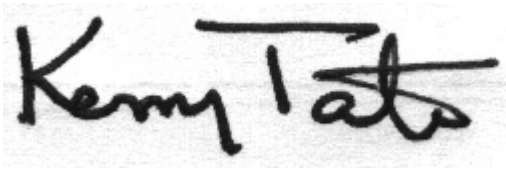
Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 13-DEC-2019 10:08



Case Narrative

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

Results for the following analytical groups are included in this report: Metals, Nutrients and Pesticides.

Scientific notation may be used in reporting very large or small values. Values reported using scientific notation will take the form of the following example: 1.3E+03, which is equivalent to 1.3×10^3 or 1300.

Unless otherwise noted, analytical values for soil and sediment samples are reported on a dry weight basis, and analytical values for waste and tissue samples are reported on a wet weight basis.

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited by the Florida Department of Health Environmental Laboratory Certification Program or where accreditation for that field of testing is not applicable.

Any significant anomalies or deviations from established protocols are documented in Non-Conformance Reports, which, where appropriate, are included within this analytical report. Additional comments related to specific analytical tests may be included as remarks following the analytical results for each sample. Such comments and remarks are for informational purposes only and are not intended to convey judgement about the usability of the reported data.

A quality control report on the performance of the test method for the submitted samples is included. Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published quality control acceptance limits for each analytical test. Matrix quality control results (matrix spike recoveries and matrix sample precision) pertain only to the matrix sample tested and do not necessarily reflect test method performance for other samples.

Typical matrix quality control (QC) measurements may include matrix spike recovery, matrix spike duplicate recovery, matrix spike precision and matrix sample precision. Not all matrix QC results may be available or reportable; where they are not an explanation is provided. Typical reasons for unavailable QC results include, but are not limited to, a) insufficient matrix sample to perform some or all QC measurements; b) analyte concentration in the sample replicated was too low for a meaningful measurement of precision and c) analyte concentration in the matrix sample spiked was too high (relative to the amount of analyte spiked) for a meaningful measurement of recovery. Where matrix QC results are unavailable, other method performance metrics (e.g., LCS recovery, LCS precision, surrogate recovery) may be used to assess performance of the method. Comments explaining any missing QC measurements are not intended to convey any adverse conclusions about the quality of the reported data.

Precision is reported as relative percent difference unless otherwise noted.

Quality Control codes as defined below may be used in this report to indicate results that are associated with one or more quality control elements which did not fall within established test method criteria. Such results may be qualified as estimates using a J qualifier as required by 62-160 F.A.C. Explanations are included in the report for any results that were reported as estimates for other reasons.

QC Codes used in this report may include:

LCS – Recovery for the batch Laboratory Control Sample (LCS) was outside existing control limits;
MS – Recovery for the batch matrix spike (MS) was outside existing control limits;
CCV – Recovery for a continuing calibration verification (CCV) standard was outside existing control limits;
SUR – Recovery of a surrogate (SUR) for associated analytes was outside existing control limits;
RPD – The precision, measured as relative percent difference (RPD), of batch replicate measurements was outside existing control limits;
RSD – The precision, measured as relative standard deviation (RSD), of batch replicate measurements was outside existing control limits;
SMP – Sample - used precision derived from replicate analyses of a sample;

The following data qualifiers are used, where applicable, in this report as specified in 62-160 F.A.C.

A - Value reported is the mean of two or more determinations.
B - Results based on colony counts outside the acceptable range.
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J - Estimated value and/or the analysis did not meet established quality control criteria.
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
N - Presumptive evidence of presence of material.
O - Sampled, but analysis lost or not performed.
Q - Sample held beyond normal holding time.
T - Value reported is less than the criterion of detection.
U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
V - Analyte was detected in both sample and method blank.
X - Too few individuals to calculate SCI value.
Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
Z - Colonies were too numerous to count (TNTC).

Quality control information from overflow laboratories may not be included in this report. Please refer to the associated report from the overflow laboratory for additional information.

Sample Location: NW Tributary to Open CR at Hodges **Collection Date/Time: 11/21/2019 08:55**

Field ID: 20030848 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2138998	EPA 180.1 Rev. 2.0	Turbidity	2.1		NTU	P374749	
	EPA 300.0 Rev. 2.1	Chloride	41		mg Cl/L	P375349	
		Sulfate	69		mg SO4/L	P375353	
	SM 2120 B	Color (true)	40		PCU	P374695	
	SM 2320 B-97	Total Alkalinity	65		mg CaCO3/L	P374990	
	SM 2540 C-97	TDS	230		mg/L	P375507	
	SM 2540 D-97	TSS	2	I	mg/L	P375492	
	SM 4500 F-C-97	Fluoride	0.088	I	mg F/L	P374995	
2139001	EPA 350.1 Rev. 2.0	Ammonia-N	0.13		mg N/L	P375093	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.64		mg N/L	P375000	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.26		mg N/L	P374947	
	EPA 365.1 Rev. 2.0	Total-P	0.049		mg P/L	P375202	
	SM 5310 B-00	Organic Carbon	10		mg C/L	P374919	
2139004	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.016		mg P/L	P374717	
2139034	EPA 8321B	Acesulfame K**	0.10	U	ug/L	P374645	
		2,4-D	0.17	J	ug/L	P374831	LCS
		AMPA**	0.13	I	ug/L	P374645	
		Sucralose**	0.55		ug/L	P374645	
		Acetaminophen**	0.0080	U	ug/L	P374831	
		Acetamiprid**	0.0020	U	ug/L	P374831	
		Endothall**	0.25	U	ug/L	P374645	
		Glufosinate**	0.10	U	ug/L	P374645	
		Glyphosate**	0.42		ug/L	P374645	
		Afidopyropen**	0.0020	UJ	ug/L	P374831	
		Bentazon	0.075		ug/L	P374831	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P374831	
		Carbamazepine**	8.0E-04	U	ug/L	P374831	
		Clothianidin**	0.0095		ug/L	P374831	
		Dinotefuran**	0.0026	I	ug/L	P374831	
		Diuron	0.0020	U	ug/L	P374831	
		Fenuron	0.016	U	ug/L	P374831	
		Fluridone**	0.25		ug/L	P374831	
		Imazapyr**	0.98		ug/L	P374831	
		Hydrocodone**	0.0020	U	ug/L	P374831	
		Ibuprofen**	0.020	U	ug/L	P374831	
		Imidacloprid	0.022		ug/L	P374831	MS
		Linuron	0.0040	U	ug/L	P374831	
		Mandestrobin**	0.0020	UJ	ug/L	P374831	
		MCPP	0.0034	I	ug/L	P374831	
		Naproxen**	0.0080	U	ug/L	P374831	
		Primidone**	0.0040	U	ug/L	P374831	
		Pyraclostrobin**	0.0020	U	ug/L	P374831	
		Thiamethoxam**	0.0020	U	ug/L	P374831	

Field ID: 20030848 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2139034	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P374831	
		Triclopyr**	0.0040	U	ug/L	P374831	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8321B: J - second source check standards for some analytes were not available for analysis. MS accuracy for 2,4-D and imazapyr could not be assessed due to high concentration of parameter in the spiked sample. MS accuracy and precision for fluridone could not be assessed due to high concentration of parameter in the spiked sample. Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: Terrapin CR @ Faye Rd. **Collection Date/Time: 11/21/2019 09:50**

Field ID: 20030653 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2138999	EPA 180.1 Rev. 2.0	Turbidity	2.9		NTU	P374747	
	EPA 300.0 Rev. 2.1	Chloride	31		mg Cl/L	P375349	
		Sulfate	37		mg SO4/L	P375353	
	SM 2120 B	Color (true)	55	A	PCU	P374695	
	SM 2320 B-97	Total Alkalinity	35		mg CaCO3/L	P374990	
	SM 2540 C-97	TDS	136		mg/L	P375507	
	SM 2540 D-97	TSS	2	I	mg/L	P375492	
	SM 4500 F-C-97	Fluoride	0.056	I	mg F/L	P374995	
2139002	EPA 350.1 Rev. 2.0	Ammonia-N	0.027		mg N/L	P375093	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.48		mg N/L	P375000	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.014		mg N/L	P374947	
	EPA 365.1 Rev. 2.0	Total-P	0.055		mg P/L	P375202	
	SM 5310 B-00	Organic Carbon	9.1		mg C/L	P374919	
2139005	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.028		mg P/L	P374717	
2139035	EPA 8321B	Acesulfame K**	0.10	U	ug/L	P374645	
		2,4-D	0.55	J	ug/L	P374831	LCS
		AMPA**	0.10	U	ug/L	P374645	
		Sucralose**	0.060		ug/L	P374645	
		Acetaminophen**	0.0080	U	ug/L	P374831	
		Acetamiprid**	0.0020	U	ug/L	P374831	
		Endothall**	0.25	U	ug/L	P374645	
		Glufosinate**	0.10	U	ug/L	P374645	
		Glyphosate**	0.10	U	ug/L	P374645	
		Afidopyropen**	0.0020	UJ	ug/L	P374831	
		Bentazon	0.0037		ug/L	P374831	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P374831	
		Carbamazepine**	8.0E-04	U	ug/L	P374831	
		Clothianidin**	0.0020	U	ug/L	P374831	
		Dinotefuran**	0.0020	U	ug/L	P374831	
		Diuron	0.051		ug/L	P374831	
		Fenuron	0.016	U	ug/L	P374831	
		Fluridone**	0.19		ug/L	P374831	
		Imazapyr**	0.28		ug/L	P374831	
		Hydrocodone**	0.0020	U	ug/L	P374831	
		Ibuprofen**	0.020	U	ug/L	P374831	
		Imidacloprid	0.0020	UJ	ug/L	P374831	MS
		Linuron	0.0040	U	ug/L	P374831	
		Mandestrobin**	0.0020	UJ	ug/L	P374831	
		MCPP	0.0020	U	ug/L	P374831	
		Naproxen**	0.0080	U	ug/L	P374831	
		Primidone**	0.0040	U	ug/L	P374831	
		Pyraclostrobin**	0.0020	U	ug/L	P374831	
		Thiamethoxam**	0.0020	U	ug/L	P374831	

Field ID: 20030653 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2139035	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P374831	
		Triclopyr**	0.0040	U	ug/L	P374831	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8321B: J - second source check standards for some analytes were not available for analysis. MS accuracy for 2,4-D and imazapyr could not be assessed due to high concentration of parameter in the spiked sample. MS accuracy and precision for fluridone could not be assessed due to high concentration of parameter in the spiked sample. Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: Butcher Pen CR At Confederate **Collection Date/Time: 11/21/2019 10:55**

Field ID: 20030082 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2139007	EPA 180.1 Rev. 2.0	Turbidity	3.3	A	NTU	P374747	
	EPA 300.0 Rev. 2.1	Chloride	2.4E+03		mg Cl/L	P375474	
		Sulfate	360		mg SO4/L	P375353	
	SM 2120 B	Color (true)	53		PCU	P374696	
	SM 2320 B-97	Total Alkalinity	94		mg CaCO3/L	P374990	
	SM 2540 C-97	TDS	3.98E+03		mg/L	P375507	
	SM 2540 D-97	TSS	2	I	mg/L	P375492	
	SM 4500 F-C-97	Fluoride	0.24		mg F/L	P374995	
2139008	EPA 350.1 Rev. 2.0	Ammonia-N	0.093		mg N/L	P375092	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.79		mg N/L	P375214	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.095		mg N/L	P374871	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P375243	
	SM 5310 B-00	Organic Carbon	11		mg C/L	P375003	
2139009	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.048		mg P/L	P374716	
2139038	EPA 200.7 Rev. 4.4	Barium	47.5		ug/L	P374896	
		Calcium	93.2		mg/L	P374896	
		Iron	380		ug/L	P374896	
		Magnesium	163		mg/L	P374896	
		Potassium	47		mg/L	P374896	
		Sodium	1.30E+03		mg/L	P374896	
		Zinc	8.4	I	ug/L	P374896	
	EPA 200.8 Rev. 5.4	Aluminum	69		ug/L	P374896	
		Antimony	0.18	I	ug/L	P374896	
		Arsenic	1.38		ug/L	P374896	
		Boron**	569		ug/L	P374896	
		Cadmium	0.020	U	ug/L	P374896	
		Chromium	0.40	U	ug/L	P374896	
		Copper	1.15		ug/L	P374896	
		Lead	0.61		ug/L	P374896	
		Nickel	0.50	U	ug/L	P374896	
		Selenium	0.20	U	ug/L	P374896	
		Silver	0.010	U	ug/L	P374896	
		Thallium	0.10	U	ug/L	P374896	

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Chloride: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Craig CR @ Hendricks Ave **Collection Date/Time: 11/21/2019 11:55**

Field ID: 20030793 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2139037	EPA 8321B	Acesulfame K**	0.10	U	ug/L	P374645	
		2,4-D	0.0042	I J	ug/L	P374831	LCS
		AMPA**	0.10	U	ug/L	P374645	
		Sucralose**	0.66		ug/L	P374645	
		Acetaminophen**	0.012	I	ug/L	P374831	
		Acetamiprid**	0.0020	U	ug/L	P374831	
		Endothall**	0.25	U	ug/L	P374645	
		Glufosinate**	0.10	U	ug/L	P374645	
		Glyphosate**	0.59		ug/L	P374645	
		Afidopyropen**	0.0020	UJ	ug/L	P374831	
		Bentazon	0.015		ug/L	P374831	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P374831	
		Carbamazepine**	8.0E-04	U	ug/L	P374831	
		Clothianidin**	0.0020	U	ug/L	P374831	
		Dinotefuran**	0.0023	I	ug/L	P374831	
		Diuron	0.013		ug/L	P374831	
		Fenuron	0.016	U	ug/L	P374831	
		Fluridone**	0.0089		ug/L	P374831	
		Imazapyr**	0.36		ug/L	P374831	
		Hydrocodone**	0.0020	U	ug/L	P374831	
		Ibuprofen**	0.020	U	ug/L	P374831	
		Imidacloprid	0.013		ug/L	P374831	MS
		Linuron	0.0040	U	ug/L	P374831	
		Mandestrobin**	0.0020	UJ	ug/L	P374831	
		MCPP	0.0020	U	ug/L	P374831	
		Naproxen**	0.0080	U	ug/L	P374831	
		Primidone**	0.0040	U	ug/L	P374831	
		Pyraclostrobin**	0.0020	U	ug/L	P374831	
		Thiamethoxam**	0.0020	U	ug/L	P374831	
		Tolfenpyrad**	0.0020	U	ug/L	P374831	
		Triclopyr**	0.0040	U	ug/L	P374831	

Ref. Method and Comment:
EPA 8321B: J - second source check standards for some analytes were not available for analysis. MS accuracy for 2,4-D and imazapyr could not be assessed due to high concentration of parameter in the spiked sample. MS accuracy and precision for fluridone could not be assessed due to high concentration of parameter in the spiked sample. Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: Craig CR. 100m Down From Footbridge in Park Collection Date/Time: 11/21/2019 12:05

Field ID: 20030958 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2138995	EPA 180.1 Rev. 2.0	Turbidity	7.2	A	NTU	P374748	
	EPA 300.0	Bromide	5.4		mg Br/L	P375024	
	SM 2320 B-97	Total Alkalinity	138		mg CaCO3/L	P374990	
	SM 2540 D-97	TSS	4	I	mg/L	P375496	
	SM 4500 F-C-97	Fluoride	0.25		mg F/L	P374995	
2138996	EPA 350.1 Rev. 2.0	Ammonia-N	0.082		mg N/L	P375092	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.61		mg N/L	P375114	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.18		mg N/L	P374871	
	EPA 365.1 Rev. 2.0	Total-P	0.083		mg P/L	P375243	
	SM 5310 B-00	Organic Carbon	9.4		mg C/L	P374919	
2138997	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.030		mg P/L	P374716	
2139033	EPA 8321B	2,4-D	0.0037	I	ug/L	P374660	
		Acesulfame K**	0.10	U	ug/L	P374645	
		AMPA**	0.10	U	ug/L	P374645	
		Sucralose**	0.58		ug/L	P374645	
		Acetaminophen**	0.0080	U	ug/L	P374660	
		Acetamiprid**	0.0020	U	ug/L	P374660	
		Endothall**	0.25	U	ug/L	P374645	
		Glufosinate**	0.10	U	ug/L	P374645	
		Glyphosate**	0.10	U	ug/L	P374645	
		Afidopyropen**	0.0020	UJ	ug/L	P374660	
		Bentazon	0.018		ug/L	P374660	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P374660	
		Carbamazepine**	8.0E-04	U	ug/L	P374660	
		Clothianidin**	0.0020	U	ug/L	P374660	
		Dinotefuran**	0.0020	U	ug/L	P374660	
		Diuron	0.025		ug/L	P374660	
		Fenuron	0.016	U	ug/L	P374660	
		Fluridone**	0.0078		ug/L	P374660	
		Imazapyr**	0.29		ug/L	P374660	
		Hydrocodone**	0.0020	U	ug/L	P374660	
		Ibuprofen**	0.020	U	ug/L	P374660	
		Imidacloprid	0.015		ug/L	P374660	MS
		Linuron	0.0040	U	ug/L	P374660	
		Mandestrobin**	0.0020	UJ	ug/L	P374660	
		MCPP	0.0020	U	ug/L	P374660	
		Naproxen**	0.0080	U	ug/L	P374660	
		Primidone**	0.0040	U	ug/L	P374660	
		Pyraclostrobin**	0.0020	U	ug/L	P374660	
		Thiamethoxam**	0.0020	U	ug/L	P374660	
		Tolfenpyrad**	0.0020	U	ug/L	P374660	
		Triclopyr**	0.0040	U	ug/L	P374660	

Field ID: 20030958 Matrix: W-SURF-SLT

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

Ref. Method and Comment:
EPA 300.0: Bromide: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8321B: J - second source check standards for some analytes were not available for analysis.

Sample Location: Goodbys CR Above West Branch at San Clerc **Collection Date/Time: 11/21/2019 12:40**

Field ID: 20030891 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2139000	EPA 180.1 Rev. 2.0	Turbidity	8.2	A	NTU	P374749	
	EPA 300.0 Rev. 2.1	Chloride	24		mg Cl/L	P375349	
		Sulfate	18		mg SO4/L	P375353	
	SM 2120 B	Color (true)	58		PCU	P374695	
	SM 2320 B-97	Total Alkalinity	130		mg CaCO3/L	P374990	
	SM 2540 C-97	TDS	211		mg/L	P375507	
	SM 2540 D-97	TSS	2	U	mg/L	P375492	
	SM 4500 F-C-97	Fluoride	0.13		mg F/L	P374995	
2139003	EPA 350.1 Rev. 2.0	Ammonia-N	0.10		mg N/L	P375093	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.49		mg N/L	P375000	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.15		mg N/L	P374947	
	EPA 365.1 Rev. 2.0	Total-P	0.074		mg P/L	P375202	
	SM 5310 B-00	Organic Carbon	7.9		mg C/L	P375003	
2139006	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.031		mg P/L	P374717	
2139036	EPA 8321B	Acesulfame K**	0.10	U	ug/L	P374645	
		2,4-D	0.065	J	ug/L	P374831	LCS
		AMPA**	0.51		ug/L	P374645	
		Sucralose**	0.14		ug/L	P374645	
		Acetaminophen**	0.021	I	ug/L	P374831	
		Acetamiprid**	0.0020	U	ug/L	P374831	
		Endothall**	0.25	U	ug/L	P374645	
		Glufosinate**	0.10	U	ug/L	P374645	
		Glyphosate**	0.37	I	ug/L	P374645	
		Afidopyropen**	0.0020	UJ	ug/L	P374831	
		Bentazon	0.015		ug/L	P374831	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P374831	
		Carbamazepine**	8.0E-04	U	ug/L	P374831	
		Clothianidin**	0.0091		ug/L	P374831	
		Dinotefuran**	0.0032	I	ug/L	P374831	
		Diuron	0.056		ug/L	P374831	
		Fenuron	0.018	I	ug/L	P374831	
		Fluridone**	0.011		ug/L	P374831	
		Imazapyr**	0.85		ug/L	P374831	
		Hydrocodone**	0.0020	U	ug/L	P374831	
		Ibuprofen**	0.020	U	ug/L	P374831	
		Imidacloprid	0.051		ug/L	P374831	MS
		Linuron	0.0040	U	ug/L	P374831	
		Mandestrobin**	0.0020	UJ	ug/L	P374831	
		MCPP	0.013		ug/L	P374831	
		Naproxen**	0.0080	U	ug/L	P374831	
		Primidone**	0.0040	U	ug/L	P374831	
		Pyraclostrobin**	0.0020	U	ug/L	P374831	
		Thiamethoxam**	0.0020	U	ug/L	P374831	

Field ID: 20030891 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2139036	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P374831	
		Triclopyr**	0.0040	U	ug/L	P374831	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8321B: J - second source check standards for some analytes were not available for analysis. MS accuracy for 2,4-D and imazapyr could not be assessed due to high concentration of parameter in the spiked sample. MS accuracy and precision for fluridone could not be assessed due to high concentration of parameter in the spiked sample. Refer to the Lab Analysis Report for an explanation of QC Codes.

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P374747

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P374748

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P374749

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P374896

Component	Result	Code	Units
Barium	1.0	U	ug/L
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P374896

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 300.0
Batch ID: P375024

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P375349

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P375353

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P375474

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P375092

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P375093

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P375000

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P375114

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P375214

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P374871

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: P374947

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P375202

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P375243

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P374716

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P374717

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

Reference Method: EPA 8321B
Batch ID: P374645

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
AMPA	0.10	U	ug/L
Endothall	0.25	U	ug/L
Glufosinate	0.10	U	ug/L
Glyphosate	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P374660

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8321B
Batch ID: P374660

Component	Result	Code	Units
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: P374831

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: SM 2120 B
Batch ID: P374695

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report
Method Blank Results

Reference Method: SM 2120 B
Batch ID: P374696

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P374990

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

Reference Method: SM 2540 C-97
Batch ID: P375507

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P375492

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P375496

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P374995

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P374919

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

Reference Method: SM 5310 B-00
Batch ID: P375003

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P374896

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	98.8		P	85 - 115
Calcium	105		P	85 - 115
Iron	107		P	85 - 115
Magnesium	108		P	85 - 115
Potassium	106		P	85 - 115
Sodium	106		P	85 - 115
Zinc	99.1		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P374896

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	94.5		P	85 - 115
Antimony	99.5		P	85 - 115
Arsenic	101		P	85 - 115
Boron	103		P	85 - 115
Cadmium	95.5		P	85 - 115
Chromium	102		P	85 - 115
Copper	102		P	85 - 115
Lead	99.9		P	85 - 115
Nickel	102		P	85 - 115
Selenium	94.4		P	85 - 115
Silver	104		P	85 - 115
Thallium	103		P	85 - 115

Reference Method: EPA 300.0
Batch ID: P375024

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Bromide	98.3		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P375349

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P375353

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P375474

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P375092

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	97.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P375093

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P375000

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	98.5		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P375114

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: P375214

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	96.4		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P374871

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P374947

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P375202

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P375243

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P374716

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P374717

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

Reference Method: EPA 8321B
Batch ID: P374645

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	85.7		P	40 - 150
AMPA	105		P	40 - 150
Endothall	97.6		P	40 - 150
Glufosinate	122		P	40 - 150
Glyphosate	117		P	40 - 140
Sucralose	120		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P374660

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	138		P	40 - 160
Acetaminophen	80.8		P	30 - 160
Acetamiprid	91.2		P	40 - 160
Afidopyropen	90.4		P	40 - 160
Bentazon	78.4		P	30 - 160
Benzovindiflupyr	75.7		P	40 - 160
Carbamazepine	93.4		P	40 - 160
Clothianidin	98.8		P	40 - 160
Dinotefuran	91.9		P	40 - 160
Diuron	84.0		P	40 - 160
Fenuron	104		P	40 - 160
Fluridone	89.6		P	40 - 160
Hydrocodone	87.5		P	40 - 160
Ibuprofen	75.5		P	30 - 160
Imazapyr	88.8		P	40 - 160
Imidacloprid	104		P	40 - 160
Linuron	75.6		P	40 - 160
Mandestrobin	84.3		P	40 - 160
MCPP	141		P	40 - 160
Naproxen	91.4		P	40 - 160
Primidone	82.7		P	40 - 160
Pyraclostrobin	78.3		P	30 - 160
Thiamethoxam	98.7		P	40 - 160
Tolfenpyrad	54.9		P	40 - 160
Triclopyr	91.8		P	30 - 160

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P374831

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	171		F	40 - 160
Acetaminophen	90.8		P	30 - 160
Acetamiprid	108		P	40 - 160
Afidopyropen	124		P	40 - 160
Bentazon	85.6		P	30 - 160
Benzovindiflupyr	85.3		P	40 - 160
Carbamazepine	105		P	40 - 160
Clothianidin	107		P	40 - 160
Dinotefuran	109		P	40 - 160
Diuron	87.2		P	40 - 160
Fenuron	116		P	40 - 160
Fluridone	103		P	40 - 160
Hydrocodone	102		P	40 - 160
Ibuprofen	84.4		P	30 - 160
Imazapyr	107		P	40 - 160
Imidacloprid	126		P	40 - 160
Linuron	82.8		P	40 - 160
Mandestrobin	94.7		P	40 - 160
MCPP	149		P	40 - 160
Naproxen	79.3		P	40 - 160
Primidone	96.9		P	40 - 160
Pyraclostrobin	91.7		P	30 - 160
Thiamethoxam	113		P	40 - 160
Tolfenpyrad	60.8		P	40 - 160
Triclopyr	123		P	30 - 160

Reference Method: SM 2120 B
Batch ID: P374695

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.4		P	85 - 115

Reference Method: SM 2120 B
Batch ID: P374696

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	100		P	85 - 115

Reference Method: SM 2320 B-97
Batch ID: P374990

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	104		P	98 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P374995

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.2		P	92 - 103

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-00
Batch ID: P374919

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

Reference Method: SM 5310 B-00
Batch ID: P375003

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	105		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P374896

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138868	Barium	96.8	97.0	P/P	80 - 120
2138868	Calcium	103		P	80 - 120
2138868	Iron	104	105	P/P	80 - 120
2138868	Magnesium	99.8	101	P/P	80 - 120
2138868	Potassium	99.5	102	P/P	80 - 120
2138868	Sodium	103		P	80 - 120
2138868	Zinc	97.9	98.3	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P374896

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138868	Aluminum	93.4	93.4	P/P	80 - 120
2138868	Antimony	100	99.8	P/P	80 - 120
2138868	Arsenic	99.8	98.7	P/P	80 - 120
2138868	Boron	103	103	P/P	80 - 120
2138868	Cadmium	96.3	95.7	P/P	80 - 120
2138868	Chromium	103	102	P/P	80 - 120
2138868	Copper	98.5	97.3	P/P	80 - 120
2138868	Lead	101	101	P/P	80 - 120
2138868	Nickel	98.5	97.9	P/P	80 - 120
2138868	Selenium	89.8	88.2	P/P	80 - 120
2138868	Silver	102	98.9	P/P	80 - 120
2138868	Thallium	108	106	P/P	80 - 120

Reference Method: EPA 300.0
Batch ID: P375024

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138346	Bromide	94.4	94.3	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P375349

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138911	Chloride	101		P	90 - 110
2139053	Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P375353

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138911	Sulfate	101		P	90 - 110
2139053	Sulfate	99.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P375474

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2140401	Chloride	102		P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P375092

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2139227	Ammonia-N	102	99.7	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P375093

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2139047	Ammonia-N	96.5	95.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P375000

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2139047	Kjeldahl Nitrogen	99.2	104	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P375114

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2139283	Kjeldahl Nitrogen	95.5	99.1	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P375214

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2139341	Kjeldahl Nitrogen	106	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P374871

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138937	NO2NO3-N	101	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P374947

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2139056	NO2NO3-N	97.9	98.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P375202

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138895	Total-P	105	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P375243

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138938	Total-P	93.9	93.3	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P374716

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138697	O-Phosphate-P	98.5	98.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P374717

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138806	O-Phosphate-P	99.0	99.5	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P374645

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138834	Acesulfame K	90.8	89.6	P/P	40 - 150
2138834	AMPA	73.7	73.1	P/P	40 - 150
2138834	Endothall	112	102	P/P	40 - 150
2138834	Glufosinate	80.1	95.7	P/P	40 - 150
2138834	Glyphosate	66.7	66.5	P/P	40 - 140
2138834	Sucralose	90.5	72.4	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P374660

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138468	2,4-D	138	135	P/P	40 - 160
2138468	Acetaminophen	87.0	84.1	P/P	30 - 160
2138468	Acetamiprid	106	106	P/P	40 - 160
2138468	Afidopyropen	95.6	106	P/P	40 - 160
2138468	Bentazon	57.2	56.6	P/P	30 - 160
2138468	Benzovindiflupyr	78.1	79.9	P/P	40 - 160
2138468	Carbamazepine	85.7	86.7	P/P	40 - 160
2138468	Clothianidin	111	105	P/P	40 - 160
2138468	Dinotefuran	118	118	P/P	40 - 160
2138468	Diuron	70.7	74.0	P/P	40 - 160
2138468	Fenuron	99.5	97.8	P/P	40 - 160
2138468	Fluridone	89.1	90.8	P/P	40 - 160
2138468	Hydrocodone	107	106	P/P	40 - 160
2138468	Ibuprofen	78.8	72.1	P/P	30 - 160
2138468	Imazapyr	93.3	102	P/P	40 - 160
2138468	Imidacloprid	175	171	F/F	40 - 160
2138468	Linuron	75.9	71.4	P/P	40 - 160
2138468	Mandestrobin	88.5	88.0	P/P	40 - 160
2138468	MCPP	137	138	P/P	40 - 160
2138468	Naproxen	81.9	88.6	P/P	40 - 160
2138468	Primidone	94.4	86.0	P/P	40 - 160
2138468	Pyraclostrobin	89.0	84.8	P/P	30 - 160
2138468	Thiamethoxam	144	144	P/P	40 - 160
2138468	Tolfenpyrad	61.3	59.2	P/P	40 - 160
2138468	Triclopyr	110	106	P/P	30 - 160

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P374831

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2139035	Acetaminophen	87.0	87.7	P/P	30 - 160
2139035	Acetamiprid	104	111	P/P	40 - 160
2139035	Afidopyropen	109	120	P/P	40 - 160
2139035	Bentazon	51.7	50.5	P/P	30 - 160
2139035	Benzovindiflupyr	78.5	82.0	P/P	40 - 160
2139035	Carbamazepine	84.4	88.0	P/P	40 - 160
2139035	Clothianidin	96.8	106	P/P	40 - 160
2139035	Dinotefuran	119	125	P/P	40 - 160
2139035	Diuron	69.3	70.8	P/P	40 - 160
2139035	Fenuron	98.2	101	P/P	40 - 160
2139035	Hydrocodone	100	104	P/P	40 - 160
2139035	Ibuprofen	75.4	82.8	P/P	30 - 160
2139035	Imidacloprid	164	171	F/F	40 - 160
2139035	Linuron	70.4	72.3	P/P	40 - 160
2139035	Mandestrobin	85.7	87.3	P/P	40 - 160
2139035	MCPP	121	129	P/P	40 - 160
2139035	Naproxen	75.6	72.9	P/P	40 - 160
2139035	Primidone	95.9	94.9	P/P	40 - 160
2139035	Pyraclostrobin	83.7	87.8	P/P	30 - 160
2139035	Thiamethoxam	139	142	P/P	40 - 160
2139035	Tolfenpyrad	59.0	59.3	P/P	40 - 160
2139035	Triclopyr	117	123	P/P	30 - 160

Reference Method: SM 4500 F-C-97
Batch ID: P374995

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2139054	Fluoride	97.0	97.5	P/P	89 - 106

Reference Method: SM 5310 B-00
Batch ID: P374919

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138789	Organic Carbon	98.5	96.1	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P375003

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2139056	Organic Carbon	102	100	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P374747

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2139007	Turbidity	1.53	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P374748

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138995	Turbidity	11.1	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P374749

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2139000	Turbidity	1.83	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P374896

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138868	Barium	0.292	Spike	P	0 - 20
2138868	Calcium	0.306	Spike	P	0 - 20
2138868	Iron	1.08	Spike	P	0 - 20
2138868	Magnesium	0.579	Spike	P	0 - 20
2138868	Potassium	1.33	Spike	P	0 - 20
2138868	Sodium	0.975	Spike	P	0 - 20
2138868	Zinc	0.480	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P374896

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138868	Aluminum	0.0816	Spike	P	0 - 20
2138868	Antimony	0.210	Spike	P	0 - 20
2138868	Arsenic	1.07	Spike	P	0 - 20
2138868	Boron	0.540	Spike	P	0 - 20
2138868	Cadmium	0.634	Spike	P	0 - 20
2138868	Chromium	1.04	Spike	P	0 - 20
2138868	Copper	1.15	Spike	P	0 - 20
2138868	Lead	0.0151	Spike	P	0 - 20
2138868	Nickel	0.587	Spike	P	0 - 20
2138868	Selenium	1.81	Spike	P	0 - 20
2138868	Silver	2.83	Spike	P	0 - 20
2138868	Thallium	1.63	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 300.0
Batch ID: P375024

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138346	Bromide	0.0655	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P375349

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138911	Chloride	0.0150	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P375353

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138911	Sulfate	0.0819	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P375474

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2140283	Chloride	0.173	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P375092

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2139227	Ammonia-N	1.62	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P375093

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2139047	Ammonia-N	0.395	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P375000

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2139047	Kjeldahl Nitrogen	3.77	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P375114

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2139283	Kjeldahl Nitrogen	3.35	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P375214

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2139341	Kjeldahl Nitrogen	4.47	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P374871

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138937	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P374947

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2139056	NO2NO3-N	0.487	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P375202

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138895	Total-P	2.14	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P375243

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138938	Total-P	0.649	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P374716

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138697	O-Phosphate-P	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P374717

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138806	O-Phosphate-P	0.367	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P374645

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138834	Acesulfame K	1.39	Spike	P	0 - 30
2138834	AMPA	0.347	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P374645

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138834	Endothall	9.05	Spike	P	0 - 30
2138834	Glufosinate	17.8	Spike	P	0 - 30
2138834	Glyphosate	0.124	Spike	P	0 - 30
2138834	Sucralose	21.8	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P374660

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138468	2,4-D	1.67	Spike	P	0 - 30
2138468	Acetaminophen	3.41	Spike	P	0 - 30
2138468	Acetamiprid	0.00425	Spike	P	0 - 30
2138468	Afidopyropen	10.7	Spike	P	0 - 30
2138468	Bentazon	1.17	Spike	P	0 - 30
2138468	Benzovindiflupyr	2.25	Spike	P	0 - 30
2138468	Carbamazepine	1.21	Spike	P	0 - 30
2138468	Clothianidin	5.34	Spike	P	0 - 30
2138468	Dinotefuran	0.0224	Spike	P	0 - 30
2138468	Diuron	4.53	Spike	P	0 - 30
2138468	Fenuron	1.71	Spike	P	0 - 30
2138468	Fluridone	1.51	Spike	P	0 - 30
2138468	Hydrocodone	1.21	Spike	P	0 - 30
2138468	Ibuprofen	8.87	Spike	P	0 - 30
2138468	Imazapyr	8.49	Spike	P	0 - 30
2138468	Imidacloprid	2.58	Spike	P	0 - 30
2138468	Linuron	6.09	Spike	P	0 - 30
2138468	Mandestrobin	0.510	Spike	P	0 - 30
2138468	MCPP	0.532	Spike	P	0 - 30
2138468	Naproxen	7.96	Spike	P	0 - 30
2138468	Primidone	9.37	Spike	P	0 - 30
2138468	Pyraclostrobin	4.86	Spike	P	0 - 30
2138468	Thiamethoxam	0.0524	Spike	P	0 - 30
2138468	Tolfenpyrad	3.38	Spike	P	0 - 30
2138468	Triclopyr	3.44	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P374831

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2139035	2,4-D	3.72	Spike	P	0 - 30
2139035	Acetaminophen	0.800	Spike	P	0 - 30
2139035	Acetamiprid	6.84	Spike	P	0 - 30
2139035	Afidopyropen	9.03	Spike	P	0 - 30
2139035	Bentazon	1.70	Spike	P	0 - 30
2139035	Benzovindiflupyr	4.41	Spike	P	0 - 30
2139035	Carbamazepine	4.11	Spike	P	0 - 30
2139035	Clothianidin	8.72	Spike	P	0 - 30
2139035	Dinotefuran	4.83	Spike	P	0 - 30
2139035	Diuron	1.15	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P374831

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2139035	Fenuron	3.27	Spike	P	0 - 30
2139035	Hydrocodone	3.97	Spike	P	0 - 30
2139035	Ibuprofen	9.40	Spike	P	0 - 30
2139035	Imazapyr	6.38	Spike	P	0 - 30
2139035	Imidacloprid	4.10	Spike	P	0 - 30
2139035	Linuron	2.65	Spike	P	0 - 30
2139035	Mandestrobin	1.88	Spike	P	0 - 30
2139035	MCPP	6.20	Spike	P	0 - 30
2139035	Naproxen	3.59	Spike	P	0 - 30
2139035	Primidone	1.03	Spike	P	0 - 30
2139035	Pyraclostrobin	4.69	Spike	P	0 - 30
2139035	Thiamethoxam	2.45	Spike	P	0 - 30
2139035	Tolfenpyrad	0.567	Spike	P	0 - 30
2139035	Triclopyr	4.33	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P374695

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138999	Color (true)	0.118	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P374696

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2139053	Color (true)	3.38	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P374990

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2139054	Total Alkalinity	1.15	Sample	P	0 - 2.8

Reference Method: SM 2540 C-97
Batch ID: P375507

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138913	TDS	3.55	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P374995

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2139054	Fluoride	0.484	Spike	P	0 - 2.5

Quality Assurance Report
Precision

Reference Method: SM 5310 B-00
Batch ID: P374919

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138789	Organic Carbon	1.49	Spike	P	0 - 20

Reference Method: SM 5310 B-00
Batch ID: P375003

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2139056	Organic Carbon	1.65	Spike	P	0 - 20

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

Quality Assurance Report
Surrogates

Lab Sample ID: 2139033
Field Sample ID: 20030958

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	133	P	30 - 160
EPA 8321B	Acetaminophen-d4	91.4	P	30 - 160
EPA 8321B	Carbamazepine-d10	92.6	P	30 - 160
EPA 8321B	Diuron-d6	88.7	P	30 - 160
EPA 8321B	Endothall-d6	156	P	30 - 160
EPA 8321B	Endothall-d6	156	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	42.2	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	42.2	P	30 - 160
EPA 8321B	Ibuprofen-d3	84.9	P	30 - 160
EPA 8321B	Primidone-d5	96.5	P	30 - 160
EPA 8321B	Sucralose-d6	129	P	30 - 160
EPA 8321B	Sucralose-d6	129	P	30 - 160

Lab Sample ID: 2139034
Field Sample ID: 20030848

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	120	P	30 - 160
EPA 8321B	Acetaminophen-d4	87.9	P	30 - 160
EPA 8321B	Carbamazepine-d10	81.5	P	30 - 160
EPA 8321B	Diuron-d6	67.8	P	30 - 160
EPA 8321B	Endothall-d6	102	P	30 - 160
EPA 8321B	Endothall-d6	102	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	92.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	92.3	P	30 - 160
EPA 8321B	Ibuprofen-d3	72.4	P	30 - 160
EPA 8321B	Primidone-d5	95.1	P	30 - 160
EPA 8321B	Sucralose-d6	142	P	30 - 160
EPA 8321B	Sucralose-d6	142	P	30 - 160

Lab Sample ID: 2139035
Field Sample ID: 20030653

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	151	P	30 - 160
EPA 8321B	Acetaminophen-d4	93.7	P	30 - 160
EPA 8321B	Carbamazepine-d10	90.5	P	30 - 160
EPA 8321B	Diuron-d6	83.5	P	30 - 160
EPA 8321B	Endothall-d6	96.4	P	30 - 160
EPA 8321B	Endothall-d6	96.4	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	91.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	91.3	P	30 - 160
EPA 8321B	Ibuprofen-d3	81.0	P	30 - 160
EPA 8321B	Primidone-d5	89.9	P	30 - 160
EPA 8321B	Sucralose-d6	137	P	30 - 160
EPA 8321B	Sucralose-d6	137	P	30 - 160

Lab Sample ID: 2139036
Field Sample ID: 20030891

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	128	P	30 - 160

Quality Assurance Report
Surrogates

Lab Sample ID: 2139036
Field Sample ID: 20030891

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	91.0	P	30 - 160
EPA 8321B	Carbamazepine-d10	81.5	P	30 - 160
EPA 8321B	Diuron-d6	72.0	P	30 - 160
EPA 8321B	Endothall-d6	101	P	30 - 160
EPA 8321B	Endothall-d6	101	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	96.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	96.5	P	30 - 160
EPA 8321B	Ibuprofen-d3	73.9	P	30 - 160
EPA 8321B	Primidone-d5	96.6	P	30 - 160
EPA 8321B	Sucralose-d6	138	P	30 - 160
EPA 8321B	Sucralose-d6	138	P	30 - 160

Lab Sample ID: 2139037
Field Sample ID: 20030793

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	117	P	30 - 160
EPA 8321B	Acetaminophen-d4	80.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	77.6	P	30 - 160
EPA 8321B	Diuron-d6	67.5	P	30 - 160
EPA 8321B	Endothall-d6	153	P	30 - 160
EPA 8321B	Endothall-d6	153	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	63.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	63.3	P	30 - 160
EPA 8321B	Ibuprofen-d3	82.0	P	30 - 160
EPA 8321B	Primidone-d5	86.8	P	30 - 160
EPA 8321B	Sucralose-d6	142	P	30 - 160
EPA 8321B	Sucralose-d6	142	P	30 - 160

Quality Assurance Report
Calibration Verification

Reference Method: SM 2120 B
Run ID: A95913
Included Lab Sample IDs: 2138998, 2138999, 2139000, 2139007

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	103	P/P	90 - 115
Color (true)	99.2	100	P/P	90 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A95916
Included Lab Sample IDs: 2138997, 2139004, 2139005, 2139006, 2139009

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	93.1	95.0	P/P	90 - 110
O-Phosphate-P	94.9	93.1	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A95930
Included Lab Sample IDs: 2138995, 2138998, 2138999, 2139000, 2139007

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	100	P/P	95 - 105
Turbidity	100	102	P/P	95 - 105
Turbidity	102	100	P/P	95 - 105

Reference Method: EPA 8321B
Run ID: A95944
Included Lab Sample IDs: 2139033, 2139034, 2139035, 2139036, 2139037

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	108	102	P/P	60 - 160
Glufosinate	131	108	P/P	60 - 160
Glyphosate	111	114	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A95960
Included Lab Sample IDs: 2139033, 2139034, 2139035, 2139036, 2139037

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	85.5	89.5	P/P	60 - 160
Endothall	98.8	106	P/P	60 - 160

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A95966
Included Lab Sample IDs: 2138996, 2139008

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

Reference Method: SM 5310 B-00
Run ID: A95980
Included Lab Sample IDs: 2138996, 2139001, 2139002

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.6	96.2	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A96002
Included Lab Sample IDs: 2139001, 2139002, 2139003

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

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A96024
Included Lab Sample IDs: 2139038

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	98.1	99.6	P/P	90 - 110
Calcium	104	98.9	P/P	90 - 110
Iron	103	101	P/P	90 - 110
Zinc	98.6	100	P/P	90 - 110

Reference Method: SM 2320 B-97
Run ID: A96025
Included Lab Sample IDs: 2138995, 2138998, 2138999, 2139000, 2139007

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

Reference Method: SM 4500 F-C-97
Run ID: A96025
Included Lab Sample IDs: 2138995, 2138998, 2138999, 2139000, 2139007

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

Reference Method: SM 5310 B-00
Run ID: A96029
Included Lab Sample IDs: 2139003, 2139008

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	106	96.0	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A96035
Included Lab Sample IDs: 2139038

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Magnesium	97.7	98.8	P/P	95 - 105
Potassium	97.7	99.3	P/P	95 - 105
Sodium	99.4	102	P/P	95 - 105

Reference Method: EPA 300.0
Run ID: A96041
Included Lab Sample IDs: 2138995

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bromide	98.9	97.9	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A96062
Included Lab Sample IDs: 2138996, 2139001, 2139002, 2139003, 2139008

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.2	99.0	P/P	90 - 110
Ammonia-N	99.9	99.2	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A96086
Included Lab Sample IDs: 2139033, 2139034, 2139035, 2139036, 2139037

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	110	96.9	P/P	50 - 150
2,4-D	93.6	106	P/P	50 - 150
2,4-D	95.8	110	P/P	50 - 150
Acetaminophen	106	104	P/P	60 - 160
Acetaminophen	108	106	P/P	60 - 160
Acetaminophen	108	104	P/P	60 - 160
Acetamiprid	104	103	P/P	50 - 150
Acetamiprid	106	109	P/P	50 - 150
Acetamiprid	107	106	P/P	50 - 150
Afidopyropen	104	105	P/P	50 - 150
Afidopyropen	105	126	P/P	50 - 150
Afidopyropen	110	105	P/P	50 - 150
Bentazon	62.6	64.0	P/P	50 - 160
Bentazon	64.0	62.7	P/P	50 - 160
Bentazon	68.5	70.9	P/P	50 - 160
Bentazon	82.6	76.7	P/P	50 - 160
Benzovindiflupyr	104	99.6	P/P	50 - 150
Benzovindiflupyr	105	107	P/P	50 - 150
Benzovindiflupyr	107	104	P/P	50 - 150
Carbamazepine	97.0	93.8	P/P	60 - 150
Carbamazepine	97.8	101	P/P	60 - 150
Carbamazepine	99.7	97.8	P/P	60 - 150
Clothianidin	110	102	P/P	60 - 150
Clothianidin	111	110	P/P	60 - 150
Clothianidin	118	110	P/P	60 - 150
Dinotefuran	108	108	P/P	50 - 150
Dinotefuran	96.3	97.0	P/P	50 - 150
Dinotefuran	99.3	96.3	P/P	50 - 150
Diuron	89.7	94.2	P/P	60 - 150
Diuron	91.6	92.6	P/P	60 - 150
Diuron	94.2	85.9	P/P	60 - 150
Fenuron	117	119	P/P	60 - 150
Fenuron	118	117	P/P	60 - 150
Fenuron	118	117	P/P	60 - 150
Fluridone	106	112	P/P	60 - 160
Fluridone	109	110	P/P	60 - 160
Fluridone	111	106	P/P	60 - 160
Fluridone	111	117	P/P	60 - 160
Hydrocodone	102	109	P/P	60 - 150
Hydrocodone	102	102	P/P	60 - 150
Hydrocodone	98.0	99.2	P/P	60 - 150
Ibuprofen	85.2	97.2	P/P	50 - 160
Ibuprofen	94.4	100	P/P	50 - 160

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A96086
Included Lab Sample IDs: 2139033, 2139034, 2139035, 2139036, 2139037

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ibuprofen	97.2	86.1	P/P	50 - 160
Imazapyr	110	101	P/P	50 - 150
Imazapyr	90.2	90.1	P/P	50 - 150
Imazapyr	95.1	110	P/P	50 - 150
Imidacloprid	100	99.3	P/P	60 - 150
Imidacloprid	103	104	P/P	60 - 150
Imidacloprid	104	96.6	P/P	60 - 150
Linuron	102	88.2	P/P	60 - 150
Linuron	88.2	92.7	P/P	60 - 150
Linuron	97.6	97.6	P/P	60 - 150
Mandestrobin	113	117	P/P	50 - 150
Mandestrobin	116	120	P/P	50 - 150
Mandestrobin	117	116	P/P	50 - 150
MCPP	106	116	P/P	50 - 150
MCPP	94.0	89.8	P/P	50 - 150
MCPP	96.5	94.0	P/P	50 - 150
Naproxen	100	101	P/P	50 - 160
Naproxen	101	97.6	P/P	50 - 160
Naproxen	63.6	128	P/P	50 - 160
Primidone	101	98.6	P/P	60 - 150
Primidone	98.6	94.4	P/P	60 - 150
Primidone	99.9	101	P/P	60 - 150
Pyraclostrobin	101	101	P/P	60 - 150
Pyraclostrobin	103	101	P/P	60 - 150
Pyraclostrobin	105	107	P/P	60 - 150
Thiamethoxam	103	106	P/P	50 - 150
Thiamethoxam	106	106	P/P	50 - 150
Thiamethoxam	109	106	P/P	50 - 150
Tolfenpyrad	109	110	P/P	60 - 150
Tolfenpyrad	110	105	P/P	60 - 150
Tolfenpyrad	113	114	P/P	60 - 150
Triclopyr	92.0	102	P/P	50 - 150
Triclopyr	96.5	104	P/P	50 - 150
Triclopyr	97.6	92.0	P/P	50 - 150

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A96087
Included Lab Sample IDs: 2138998, 2138999, 2139000

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

Reference Method: EPA 8321B
Run ID: A96104
Included Lab Sample IDs: 2139034

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Imazapyr	88.5	90.4	P/P	50 - 150

Quality Assurance Report
Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A96111
Included Lab Sample IDs: 2138996

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A96112
Included Lab Sample IDs: 2139001, 2139002, 2139003

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	104	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A96127
Included Lab Sample IDs: 2139033, 2139034, 2139035, 2139036, 2139037

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	113	121	P/P	60 - 160

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A96138
Included Lab Sample IDs: 2139008

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.8	99.7	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A96141
Included Lab Sample IDs: 2139038

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	93.1	93.6	P/P	90 - 110
Antimony	95.7	95.8	P/P	90 - 110
Arsenic	98.2	98.3	P/P	90 - 110
Cadmium	95.5	95.4	P/P	90 - 110
Chromium	104	103	P/P	90 - 110
Copper	99.2	99.9	P/P	90 - 110
Lead	98.0	97.7	P/P	90 - 110
Nickel	99.9	100	P/P	90 - 110
Selenium	96.4	95.6	P/P	90 - 110
Silver	103	103	P/P	90 - 110
Thallium	95.2	94.1	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A96160
Included Lab Sample IDs: 2139001

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A96164
Included Lab Sample IDs: 2139002

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A96165
Included Lab Sample IDs: 2139003

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.4	96.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A96171
Included Lab Sample IDs: 2138996, 2139008

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

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A96205
Included Lab Sample IDs: 2139007

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

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A96240
Included Lab Sample IDs: 2139038

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Boron	99.8	101	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					1.53	
	Turbidity					11.1	
	Turbidity					1.83	
EPA 200.7 Rev. 4.4	Barium	98.8	96.8	97.0			0.292
	Calcium	105	103				0.306
	Iron	107	104	105			1.08
	Magnesium	108	99.8	101			0.579
	Potassium	106	99.5	102			1.33
	Sodium	106	103				0.975
	Zinc	99.1	97.9	98.3			0.480
EPA 200.8 Rev. 5.4	Aluminum	94.5	93.4	93.4			0.0816
	Antimony	99.5	100	99.8			0.210
	Arsenic	101	99.8	98.7			1.07
	Boron	103	103	103			0.540
	Cadmium	95.5	96.3	95.7			0.634
	Chromium	102	103	102			1.04
	Copper	102	98.5	97.3			1.15
	Lead	99.9	101	101			0.0151
	Nickel	102	98.5	97.9			0.587
	Selenium	94.4	89.8	88.2			1.81
	Silver	104	102	98.9			2.83
	Thallium	103	108	106			1.63
EPA 300.0	Bromide	98.3	94.4	94.3			0.0655
EPA 300.0 Rev. 2.1	Chloride	102	101	101		0.0150	
	Chloride	102	102			0.173	
	Sulfate	101	101	99.8		0.0819	
EPA 350.1 Rev. 2.0	Ammonia-N	97.9	102	99.7			1.62
	Ammonia-N	98.5	96.5	95.8			0.395
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	98.5	99.2	104			3.77
	Kjeldahl Nitrogen	99.7	95.5	99.1			3.35
	Kjeldahl Nitrogen	96.4	106	101			4.47
EPA 353.2 Rev. 2.0	NO2NO3-N	102	101	101			0.0
	NO2NO3-N	98.5	97.9	98.4			0.487
EPA 365.1 Rev. 2.0	Total-P	106	105	102			2.14
	Total-P	104	93.9	93.3			0.649
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	102	98.5	98.5			0.0
	O-Phosphate-P	106	99.0	99.5			0.367
EPA 8321B	2,4-D	138	138	135			1.67
	2,4-D	171					3.72
	Acesulfame K	85.7	90.8	89.6			1.39
	Acetaminophen	80.8	87.0	84.1			3.41
	Acetaminophen	90.8	87.0	87.7			0.800
	Acetamiprid	91.2	106	106			0.0042
	Acetamiprid	108	104	111			6.84
	Afidopyropen	90.4	95.6	106			10.7
	Afidopyropen	124	109	120			9.03
	AMPA	105	73.7	73.1			0.347
	Bentazon	78.4	57.2	56.6			1.17
	Bentazon	85.6	51.7	50.5			1.70
	Benzovindiflupyr	75.7	78.1	79.9			2.25
	Benzovindiflupyr	85.3	78.5	82.0			4.41
	Carbamazepine	93.4	85.7	86.7			1.21
	Carbamazepine	105	84.4	88.0			4.11
	Clothianidin	98.8	111	105			5.34

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8321B	Clothianidin	107	96.8	106			8.72
	Dinotefuran	91.9	118	118			0.0224
	Dinotefuran	109	119	125			4.83
	Diuron	84.0	70.7	74.0			4.53
	Diuron	87.2	69.3	70.8			1.15
	Endothall	97.6	112	102			9.05
	Fenuron	104	99.5	97.8			1.71
	Fenuron	116	98.2	101			3.27
	Fluridone	89.6	89.1	90.8			1.51
	Fluridone	103					
	Glufosinate	122	80.1	95.7			17.8
	Glyphosate	117	66.7	66.5			0.124
	Hydrocodone	87.5	107	106			1.21
	Hydrocodone	102	100	104			3.97
	Ibuprofen	75.5	78.8	72.1			8.87
	Ibuprofen	84.4	75.4	82.8			9.40
	Imazapyr	88.8	93.3	102			8.49
	Imazapyr	107					6.38
	Imidacloprid	104	175	171			2.58
	Imidacloprid	126	164	171			4.10
	Linuron	75.6	75.9	71.4			6.09
	Linuron	82.8	70.4	72.3			2.65
	Mandestrobin	84.3	88.5	88.0			0.510
	Mandestrobin	94.7	85.7	87.3			1.88
	MCPP	141	137	138			0.532
	MCPP	149	121	129			6.20
	Naproxen	91.4	81.9	88.6			7.96
	Naproxen	79.3	75.6	72.9			3.59
	Primidone	82.7	94.4	86.0			9.37
	Primidone	96.9	95.9	94.9			1.03
	Pyraclostrobin	78.3	89.0	84.8			4.86
	Pyraclostrobin	91.7	83.7	87.8			4.69
	Sucralose	120	90.5	72.4			21.8
	Thiamethoxam	98.7	144	144			0.0524
	Thiamethoxam	113	139	142			2.45
	Tolfenpyrad	54.9	61.3	59.2			3.38
	Tolfenpyrad	60.8	59.0	59.3			0.567
	Triclopyr	91.8	110	106			3.44
	Triclopyr	123	117	123			4.33
SM 2120 B	Color (true)	98.4				0.118	
	Color (true)	100				3.38	
SM 2320 B-97	Total Alkalinity	104				1.15	
SM 2540 C-97	TDS					3.55	
SM 4500 F-C-97	Fluoride	98.2	97.0	97.5			0.484
SM 5310 B-00	Organic Carbon	96.6	98.5	96.1			1.49
	Organic Carbon	105	102	100			1.65

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2138995, 2138998, 2138999, 2139000, 2139007

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2139038
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2139038
EPA 300.0 / E31780	Bromide in aqueous matrices	2138995
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2138998, 2138999, 2139000, 2139007
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2138998, 2138999, 2139000, 2139007
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2138996, 2139001, 2139002, 2139003, 2139008
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2138996, 2139001, 2139002, 2139003, 2139008
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2138996, 2139001, 2139002, 2139003, 2139008
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2138996, 2139001, 2139002, 2139003, 2139008
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2138997, 2139004, 2139005, 2139006, 2139009
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2139033, 2139034, 2139035, 2139036, 2139037
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2139033, 2139034, 2139035, 2139036, 2139037
SM 2120 B / E31780	True Color measured at 450 nm	2138998, 2138999, 2139000, 2139007
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	2138995, 2138998, 2138999, 2139000, 2139007
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2138998, 2138999, 2139000, 2139007
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2138995, 2138998, 2138999, 2139000, 2139007
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2138995, 2138998, 2138999, 2139000, 2139007
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2138996, 2139001, 2139002, 2139003, 2139008

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	11/22/2019			11/22/2019 16:25	Yen Ta	2138995, 2138998, 2138999, 2139000, 2139007
EPA 200.7 Rev. 4.4	11/22/2019	11/26/2019 17:50	Elliott D. Healy	11/27/2019 17:57	Betina Topolski	2139038
	11/22/2019	11/26/2019 17:50	Elliott D. Healy	12/02/2019 11:01	Betina Topolski	2139038
EPA 200.8 Rev. 5.4	11/22/2019	11/26/2019 17:50	Elliott D. Healy	12/06/2019 06:31	Alexander Thompson	2139038
	11/22/2019	11/26/2019 17:50	Elliott D. Healy	12/11/2019 00:07	Alexander Thompson	2139038
EPA 300.0	11/22/2019			11/27/2019 05:35	Julia Storbeck	2138995
EPA 300.0 Rev. 2.1	11/22/2019			12/05/2019 10:19	Lipi Saha	2138998
	11/22/2019			12/05/2019 10:31	Lipi Saha	2138999
	11/22/2019			12/05/2019 10:43	Lipi Saha	2139000
	11/22/2019			12/05/2019 11:19	Lipi Saha	2139007
	11/22/2019			12/09/2019 21:58	Lipi Saha	2139007
EPA 350.1 Rev. 2.0	11/22/2019			11/27/2019 11:39	Ping Hua	2139008
	11/22/2019			11/27/2019 11:50	Ping Hua	2138996
	11/22/2019			11/27/2019 11:59	Ping Hua	2139001
	11/22/2019			11/27/2019 12:00	Ping Hua	2139002
	11/22/2019			11/27/2019 12:02	Ping Hua	2139003
EPA 351.2 Rev. 2.0	11/22/2019	12/02/2019 12:34	Sima Feizi	12/04/2019 17:28	Jhamieka S. Greenwood	2139001
	11/22/2019	12/02/2019 12:34	Sima Feizi	12/04/2019 17:29	Jhamieka S. Greenwood	2139002
	11/22/2019	12/02/2019 12:34	Sima Feizi	12/04/2019 17:31	Jhamieka S. Greenwood	2139003
	11/22/2019	12/03/2019 12:55	Sima Feizi	12/04/2019 14:52	Jhamieka S. Greenwood	2138996
	11/22/2019	12/04/2019 12:15	Sima Feizi	12/05/2019 15:42	Jhamieka S. Greenwood	2139008
EPA 353.2 Rev. 2.0	11/22/2019			11/26/2019 12:15	Beverly Y. Sanders	2138996
	11/22/2019			11/26/2019 12:17	Beverly Y. Sanders	2139008
	11/22/2019			11/27/2019 10:02	Beverly Y. Sanders	2139001
	11/22/2019			11/27/2019 10:03	Beverly Y. Sanders	2139002
	11/22/2019			11/27/2019 10:04	Beverly Y. Sanders	2139003
EPA 365.1 Rev. 2.0	11/22/2019	12/04/2019 12:29	Yen Ta	12/05/2019 22:37	Julia Storbeck	2139003
	11/22/2019	12/04/2019 12:29	Yen Ta	12/06/2019 14:16	Benjamin T. Nordmann	2139001
	11/22/2019	12/04/2019 12:29	Yen Ta	12/06/2019 16:09	Benjamin T. Nordmann	2139002
	11/22/2019	12/05/2019 12:06	Yen Ta	12/06/2019 21:43	Julia Storbeck	2138996
	11/22/2019	12/05/2019 12:06	Yen Ta	12/06/2019 21:44	Julia Storbeck	2139008
EPA 365.1 Rev. 2.0 dissolved	11/22/2019			11/22/2019 17:08	Samantha Davila	2138997
	11/22/2019			11/22/2019 17:09	Samantha Davila	2139009
	11/22/2019			11/22/2019 17:19	Samantha Davila	2139004
	11/22/2019			11/22/2019 17:20	Samantha Davila	2139005
	11/22/2019			11/22/2019 17:21	Samantha Davila	2139006
EPA 8321B	11/22/2019	11/22/2019 14:30	Rebecca Ware	11/22/2019 22:19	Rebecca Ware	2139033
	11/22/2019	11/22/2019 14:30	Rebecca Ware	11/22/2019 22:33	Rebecca Ware	2139034
	11/22/2019	11/22/2019 14:30	Rebecca Ware	11/22/2019 22:47	Rebecca Ware	2139035

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	11/22/2019	11/22/2019 14:30	Rebecca Ware	11/22/2019 23:00	Rebecca Ware	2139036
	11/22/2019	11/22/2019 14:30	Rebecca Ware	11/22/2019 23:14	Rebecca Ware	2139037
	11/22/2019	11/22/2019 14:30	Rebecca Ware	11/23/2019 20:17	Rebecca Ware	2139033
	11/22/2019	11/22/2019 14:30	Rebecca Ware	11/23/2019 20:27	Rebecca Ware	2139034
	11/22/2019	11/22/2019 14:30	Rebecca Ware	11/23/2019 20:38	Rebecca Ware	2139035
	11/22/2019	11/22/2019 14:30	Rebecca Ware	11/23/2019 20:49	Rebecca Ware	2139036
	11/22/2019	11/22/2019 14:30	Rebecca Ware	11/23/2019 21:00	Rebecca Ware	2139037
	11/22/2019	11/22/2019 14:30	Rebecca Ware	12/04/2019 17:17	Rebecca Ware	2139033
	11/22/2019	11/22/2019 14:30	Rebecca Ware	12/04/2019 17:28	Rebecca Ware	2139034
	11/22/2019	11/22/2019 14:30	Rebecca Ware	12/04/2019 17:40	Rebecca Ware	2139035
	11/22/2019	11/22/2019 14:30	Rebecca Ware	12/04/2019 17:52	Rebecca Ware	2139036
	11/22/2019	11/22/2019 14:30	Rebecca Ware	12/04/2019 18:04	Rebecca Ware	2139037
	11/22/2019	11/26/2019 10:00	Hoor Shaik	11/27/2019 12:40	Juyoung Kim	2139033
	11/22/2019	11/27/2019 09:00	Hoor Shaik	11/28/2019 01:36	Juyoung Kim	2139035
	11/22/2019	11/27/2019 09:00	Hoor Shaik	11/28/2019 02:11	Juyoung Kim	2139034
	11/22/2019	11/27/2019 09:00	Hoor Shaik	11/28/2019 02:45	Juyoung Kim	2139036
	11/22/2019	11/27/2019 09:00	Hoor Shaik	11/28/2019 03:54	Juyoung Kim	2139037
	11/22/2019	11/27/2019 09:00	Hoor Shaik	12/04/2019 01:13	Juyoung Kim	2139034
	11/22/2019	11/27/2019 09:00	Hoor Shaik	12/04/2019 01:48	Juyoung Kim	2139035
SM 2120 B	11/22/2019			11/22/2019 16:13	Julia Storbeck	2138999
	11/22/2019			11/22/2019 16:19	Julia Storbeck	2138998
	11/22/2019			11/22/2019 16:20	Julia Storbeck	2139000
	11/22/2019			11/22/2019 16:25	Julia Storbeck	2139007
SM 2320 B-97	11/22/2019			11/27/2019 19:16	Dale L. Simmons	2138998
	11/22/2019			11/27/2019 19:28	Dale L. Simmons	2138999
	11/22/2019			11/27/2019 19:41	Dale L. Simmons	2139000
	11/22/2019			11/27/2019 21:20	Dale L. Simmons	2138995
	11/22/2019			11/27/2019 21:33	Dale L. Simmons	2139007
SM 2540 C-97	11/22/2019			11/27/2019 15:32	Yijie Li	2138998, 2138999, 2139000, 2139007
SM 2540 D-97	11/22/2019			11/27/2019 15:32	Yijie Li	2138995, 2138998, 2138999, 2139000, 2139007
SM 4500 F-C-97	11/22/2019			11/27/2019 19:16	Dale L. Simmons	2138998
	11/22/2019			11/27/2019 19:28	Dale L. Simmons	2138999
	11/22/2019			11/27/2019 19:41	Dale L. Simmons	2139000
	11/22/2019			11/27/2019 21:20	Dale L. Simmons	2138995
	11/22/2019			11/27/2019 21:33	Dale L. Simmons	2139007
SM 5310 B-00	11/22/2019			11/26/2019 06:56	Lauren Lees	2138996
	11/22/2019			11/26/2019 07:09	Lauren Lees	2139001
	11/22/2019			11/26/2019 07:27	Lauren Lees	2139002
	11/22/2019			11/27/2019 04:37	Lauren Lees	2139003

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Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 5310 B-00	11/22/2019			11/27/2019 04:50	Lauren Lees	2139008