

Chemical Analysis Report

SO-DIST-2020-07-22-01

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

Event Description: **2020 SMP : Hatchee Cricks**
Request ID: **RQ-2020-03-16-53**
Customer: **SO-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FLDEP South District Office
2295 Victoria Ave. Suite 364
Fort Myers, FL 33901-3381
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Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 07-AUG-2020 12:40

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line above the "T" and a long horizontal stroke at the end.

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: Pollywog Creek @ SR 78

Collection Date/Time: 07/21/2020 09:15

Field ID: G3SD0098

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2184842	EPA 8321B	2,4-D	0.0020	U	ug/L	P385007	
		Acesulfame K**	0.30	I	ug/L	P385009	
		AMPA**	0.10	U	ug/L	P385009	
		Sucralose**	0.34		ug/L	P385009	
		Acetaminophen**	0.0080	U	ug/L	P385007	
		Acetamiprid**	0.0020	U	ug/L	P385007	
		Endothall**	0.25	U	ug/L	P385009	
		Glufosinate**	0.10	U	ug/L	P385009	
		Glyphosate**	0.10	U	ug/L	P385009	
		Afidopyropen**	0.0020	U	ug/L	P385007	
		Bentazon	8.0E-04	U	ug/L	P385007	
		Benzovindiflupyr**	0.0020	U	ug/L	P385007	
		Carbamazepine**	0.0013	I	ug/L	P385007	
		Clothianidin**	0.0020	U	ug/L	P385007	
		Dinotefuran**	0.0020	U	ug/L	P385007	
		Diuron	0.0020	U	ug/L	P385007	
		Fenuron	0.016	U	ug/L	P385007	
		Fluridone**	8.0E-04	U	ug/L	P385007	
		Imazapyr**	0.0040	U	ug/L	P385007	
		Hydrocodone**	0.0020	U	ug/L	P385007	
		Ibuprofen**	0.020	U	ug/L	P385007	
		Imidacloprid	0.0020	U	ug/L	P385007	
		Linuron	0.0040	U	ug/L	P385007	
		Mandestrobin**	0.0020	U	ug/L	P385007	
		MCP	0.0020	U	ug/L	P385007	
		Naproxen**	0.0080	U	ug/L	P385007	
		Primidone**	0.0040	U	ug/L	P385007	
		Pyraclostrobin**	0.0020	U	ug/L	P385007	
		Thiamethoxam**	0.0020	U	ug/L	P385007	
		Tolfenpyrad**	0.0020	U	ug/L	P385007	
		Triclopyr**	0.0040	U	ug/L	P385007	

Sample Location: BeeBranch@LoblollyBayRd

Collection Date/Time: 07/21/2020 09:45

Field ID: G3SD0085

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2184825	EPA 180.1 Rev. 2.0	Turbidity	2.2		NTU	P385059	
	EPA 300.0 Rev. 2.1	Chloride	34		mg Cl/L	P385318	
		Sulfate	15		mg SO4/L	P385322	
	SM 2120 B-2011	Color (true)	340		PCU	P385030	
	SM 2320 B-2011	Total Alkalinity	15		mg CaCO3/L	P385103	
	SM 2540 C-2011	TDS	181		mg/L	P385596	
	SM 2540 D-2011	TSS	2	I	mg/L	P385591	
	SM 4500 F-C-2011	Fluoride	0.089	I	mg F/L	P385106	
2184826	EPA 350.1 Rev. 2.0	Ammonia-N	0.022		mg N/L	P385145	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P385371	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.11		mg N/L	P385050	
	EPA 365.1 Rev. 2.0	Total-P	0.10		mg P/L	P385236	
	SM 5310 B-2011	Organic Carbon	32		mg C/L	P385262	
2184827	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.070		mg P/L	P385014	
2184839	EPA 8321B	2,4-D	0.0020	U	ug/L	P385007	
		Acesulfame K**	0.10	U	ug/L	P385009	
		AMPA**	0.16	I	ug/L	P385009	
		Sucralose**	0.010	U	ug/L	P385009	
		Acetaminophen**	0.0080	U	ug/L	P385007	
		Acetamiprid**	0.0020	U	ug/L	P385007	
		Endothall**	0.25	U	ug/L	P385009	
		Glufosinate**	0.10	U	ug/L	P385009	
		Glyphosate**	0.12	I	ug/L	P385009	
		Afidopyropen**	0.0020	U	ug/L	P385007	
		Bentazon	8.0E-04	U	ug/L	P385007	
		Benzovindiflupyr**	0.0020	U	ug/L	P385007	
		Carbamazepine**	8.0E-04	U	ug/L	P385007	
		Clothianidin**	0.0020	U	ug/L	P385007	
		Dinotefuran**	0.0020	U	ug/L	P385007	
		Diuron	0.0020	U	ug/L	P385007	
		Fenuron	0.016	U	ug/L	P385007	
		Fluridone**	8.0E-04	U	ug/L	P385007	
		Imazapyr**	0.0040	U	ug/L	P385007	
		Hydrocodone**	0.0020	U	ug/L	P385007	
		Ibuprofen**	0.020	U	ug/L	P385007	
		Imidacloprid	0.065		ug/L	P385007	
		Linuron	0.0040	U	ug/L	P385007	
		Mandestrobin**	0.0020	U	ug/L	P385007	
		MCPD	0.0020	U	ug/L	P385007	
		Naproxen**	0.0080	U	ug/L	P385007	
		Primidone**	0.0040	U	ug/L	P385007	
		Pyraclostrobin**	0.0020	U	ug/L	P385007	
		Thiamethoxam**	0.0020	U	ug/L	P385007	

Field ID: G3SD0085

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2184839	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P385007	
		Triclopyr**	0.0040	U	ug/L	P385007	

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

Sample Location: BeeBranch@LoblollyBayRd

Collection Date/Time: 07/21/2020 09:50

Field ID: FB_07212020

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2184828	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P385318	
		Sulfate	0.20	U	mg SO4/L	P385322	
	SM 2120 B-2011	Color (true)	2.5	U	PCU	P385030	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P385103	
	SM 2540 C-2011	TDS	15	U	mg/L	P385594	
	SM 2540 D-2011	TSS	2	U	mg/L	P385589	
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P385106	
2184829	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P385145	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P385371	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P385050	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P385236	
	SM 5310 B-2011	Organic Carbon	0.50	U	mg C/L	P385262	
2184830	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P385014	
2184843	EPA 8321B	2,4-D	0.0020	U	ug/L	P385007	
		Acesulfame K**	0.10	U	ug/L	P385009	
		AMPA**	0.10	U	ug/L	P385009	
		Sucralose**	0.010	U	ug/L	P385009	
		Acetaminophen**	0.0080	U	ug/L	P385007	
		Acetamiprid**	0.0020	U	ug/L	P385007	
		Endothall**	0.25	U	ug/L	P385009	
		Glufosinate**	0.10	U	ug/L	P385009	
		Glyphosate**	0.10	U	ug/L	P385009	
		Afidopyropen**	0.0020	U	ug/L	P385007	
		Bentazon	8.0E-04	U	ug/L	P385007	
		Benzovindiflupyr**	0.0020	U	ug/L	P385007	
		Carbamazepine**	8.0E-04	U	ug/L	P385007	
		Clothianidin**	0.0020	U	ug/L	P385007	
		Dinotefuran**	0.0020	U	ug/L	P385007	
		Diuron	0.0020	U	ug/L	P385007	
		Fenuron	0.016	U	ug/L	P385007	
		Fluridone**	8.0E-04	U	ug/L	P385007	
		Imazapyr**	0.0040	U	ug/L	P385007	
		Hydrocodone**	0.0020	U	ug/L	P385007	
		Ibuprofen**	0.020	U	ug/L	P385007	
		Imidacloprid	0.0020	U	ug/L	P385007	
		Linuron	0.0040	U	ug/L	P385007	
		Mandestrobin**	0.0020	U	ug/L	P385007	
		MCPP	0.0020	U	ug/L	P385007	
		Naproxen**	0.0080	U	ug/L	P385007	
		Primidone**	0.0040	U	ug/L	P385007	
		Pyraclostrobin**	0.0020	U	ug/L	P385007	
		Thiamethoxam**	0.0020	U	ug/L	P385007	
		Tolfenpyrad**	0.0020	U	ug/L	P385007	

Field ID: FB_07212020

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2184843	EPA 8321B	Triclopyr**	0.0040	U	ug/L	P385007	

Ref. Method and Comment:

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

Sample Location: Cypress Creek @NRiverRd

Collection Date/Time: 07/21/2020 10:40

Field ID: G3SD0084

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2184840	EPA 8321B	2,4-D	0.084		ug/L	P385007	
		Acesulfame K**	0.10	U	ug/L	P385009	
		AMPA**	1.2		ug/L	P385009	
		Sucralose**	0.096		ug/L	P385009	
		Acetaminophen**	0.0080	U	ug/L	P385007	
		Acetamiprid**	0.0020	U	ug/L	P385007	
		Endothall**	0.25	U	ug/L	P385009	
		Glufosinate**	0.10	U	ug/L	P385009	
		Glyphosate**	1.6		ug/L	P385009	
		Afidopyropen**	0.0020	U	ug/L	P385007	
		Bentazon	0.013		ug/L	P385007	
		Benzovindiflupyr**	0.0020	U	ug/L	P385007	
		Carbamazepine**	8.0E-04	U	ug/L	P385007	
		Clothianidin**	0.0079	I	ug/L	P385007	
		Dinotefuran**	0.0098		ug/L	P385007	
		Diuron	0.010		ug/L	P385007	
		Fenuron	0.016	U	ug/L	P385007	
		Fluridone**	0.0047		ug/L	P385007	
		Imazapyr**	0.17		ug/L	P385007	
		Hydrocodone**	0.0020	U	ug/L	P385007	
		Ibuprofen**	0.020	U	ug/L	P385007	
		Imidacloprid	0.030		ug/L	P385007	
		Linuron	0.0040	U	ug/L	P385007	
		Mandestrobin**	0.0020	U	ug/L	P385007	
		MCP	0.0020	U	ug/L	P385007	
		Naproxen**	0.0080	U	ug/L	P385007	
		Primidone**	0.0040	U	ug/L	P385007	
		Pyraclostrobin**	0.0020	U	ug/L	P385007	
		Thiamethoxam**	0.012		ug/L	P385007	
		Tolfenpyrad**	0.0020	U	ug/L	P385007	
		Triclopyr**	0.0040	U	ug/L	P385007	

Sample Location: Owl Creek at River Rd

Collection Date/Time: 07/21/2020 11:05

Field ID: G3SD0166

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2184841	EPA 8321B	2,4-D	0.017		ug/L	P385007	
		Acesulfame K**	0.18	I	ug/L	P385009	
		AMPA**	0.98		ug/L	P385009	
		Sucralose**	0.11		ug/L	P385009	
		Acetaminophen**	0.017	I	ug/L	P385007	
		Acetamiprid**	0.0020	U	ug/L	P385007	
		Endothall**	0.25	U	ug/L	P385009	
		Glufosinate**	0.10	U	ug/L	P385009	
		Glyphosate**	1.5		ug/L	P385009	
		Afidopyropen**	0.0020	U	ug/L	P385007	
		Bentazon	8.0E-04	U	ug/L	P385007	
		Benzovindiflupyr**	0.0020	U	ug/L	P385007	
		Carbamazepine**	8.0E-04	U	ug/L	P385007	
		Clothianidin**	0.0020	U	ug/L	P385007	
		Dinotefuran**	0.0020	U	ug/L	P385007	
		Diuron	0.0020	U	ug/L	P385007	
		Fenuron	0.016	U	ug/L	P385007	
		Fluridone**	8.0E-04	U	ug/L	P385007	
		Imazapyr**	0.026		ug/L	P385007	
		Hydrocodone**	0.0020	U	ug/L	P385007	
		Ibuprofen**	0.020	U	ug/L	P385007	
		Imidacloprid	0.0020	U	ug/L	P385007	
		Linuron	0.0040	U	ug/L	P385007	
		Mandestrobin**	0.0020	U	ug/L	P385007	
		MCP	0.0020	U	ug/L	P385007	
		Naproxen**	0.0080	U	ug/L	P385007	
		Primidone**	0.0040	U	ug/L	P385007	
		Pyraclostrobin**	0.0020	U	ug/L	P385007	
		Thiamethoxam**	0.0020	U	ug/L	P385007	
		Tolfenpyrad**	0.0020	U	ug/L	P385007	
		Triclopyr**	0.0040	U	ug/L	P385007	

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P385059

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P385318

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P385322

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P385145

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P385371

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P385050

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P385236

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P385014

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

Reference Method: EPA 8321B
Batch ID: P385007

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P385007

Component	Result	Code	Units
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P385009

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 2120 B-2011
Batch ID: P385030

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P385103

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

Reference Method: SM 2540 C-2011
Batch ID: P385594

Component	Result	Code	Units
TDS	15	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 C-2011
Batch ID: P385596

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P385589

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P385591

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P385106

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P385262

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P385318

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P385322

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	98.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P385145

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P385371

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P385050

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P385236

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P385014

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

Reference Method: EPA 8321B
Batch ID: P385007

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	109		P	30 - 160
Acetaminophen	74.5		P	30 - 160
Acetamiprid	83.9		P	30 - 160
Afidopyropen	73.0		P	30 - 160
Bentazon	59.3		P	30 - 160
Benzovindiflupyr	82.3		P	30 - 160
Carbamazepine	73.2		P	30 - 160
Clothianidin	86.0		P	30 - 160
Dinotefuran	90.6		P	30 - 160
Diuron	68.4		P	30 - 160

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P385007

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fenuron	99.8		P	30 - 160
Fluridone	109		P	30 - 160
Hydrocodone	82.2		P	30 - 160
Ibuprofen	87.7		P	30 - 160
Imazapyr	86.9		P	30 - 160
Imidacloprid	93.9		P	30 - 160
Linuron	75.5		P	30 - 160
Mandestrobin	90.5		P	30 - 160
MCPP	131		P	30 - 160
Naproxen	74.7		P	30 - 160
Primidone	78.8		P	30 - 160
Pyraclostrobin	95.6		P	30 - 160
Thiamethoxam	96.7		P	30 - 160
Tolfenpyrad	66.0		P	30 - 160
Triclopyr	99.8		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P385009

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	78.8		P	40 - 150
AMPA	81.6		P	40 - 150
Endothall	98.9		P	40 - 150
Glufosinate	99.9		P	40 - 150
Glyphosate	97.9		P	40 - 140
Sucralose	89.3		P	40 - 150

Reference Method: SM 2120 B-2011
Batch ID: P385030

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

Reference Method: SM 2320 B-2011
Batch ID: P385103

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	100		P	93 - 104

Reference Method: SM 4500 F-C-2011
Batch ID: P385106

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

Reference Method: SM 5310 B-2011
Batch ID: P385262

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.0		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P385318

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2184605	Chloride	99.2		P	90 - 110
2184710	Chloride	99.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P385322

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2184605	Sulfate	96.5		P	90 - 110
2184710	Sulfate	98.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P385145

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2184711	Ammonia-N	99.8	98.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P385371

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2184887	Kjeldahl Nitrogen	108	113	P/F	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P385050

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2184639	NO2NO3-N	99.0	99.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P385236

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2184639	Total-P	106	108	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P385014

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2184630	O-Phosphate-P	96.0	96.9	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P385007

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2184390	2,4-D	133	127	P/P	30 - 160
2184390	Acetaminophen	79.6	80.1	P/P	30 - 160
2184390	Acetamiprid	73.9	72.5	P/P	30 - 160
2184390	Afidopyropen	73.1	68.5	P/P	30 - 160
2184390	Bentazon	46.4	43.9	P/P	30 - 160
2184390	Benzovindiflupyr	77.5	72.2	P/P	30 - 160
2184390	Carbamazepine	58.0	59.1	P/P	30 - 160
2184390	Clothianidin	72.1	70.1	P/P	30 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
 Batch ID: P385007

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2184390	Dinotefuran	93.6	91.4	P/P	30 - 160
2184390	Diuron	53.1	53.6	P/P	30 - 160
2184390	Fenuron	84.0	82.8	P/P	30 - 160
2184390	Fluridone	102	94.7	P/P	30 - 160
2184390	Hydrocodone	68.9	70.0	P/P	30 - 160
2184390	Ibuprofen	82.2	69.8	P/P	30 - 160
2184390	Imazapyr	95.1	101	P/P	30 - 160
2184390	Imidacloprid	132	134	P/P	30 - 160
2184390	Linuron	67.0	61.2	P/P	30 - 160
2184390	Mandestrobin	79.6	79.0	P/P	30 - 160
2184390	MCP	137	138	P/P	30 - 160
2184390	Naproxen	60.0	64.4	P/P	30 - 160
2184390	Primidone	82.5	87.8	P/P	30 - 160
2184390	Pyraclostrobin	75.3	74.7	P/P	30 - 160
2184390	Thiamethoxam	104	101	P/P	30 - 160
2184390	Tolfenpyrad	52.4	57.4	P/P	30 - 160
2184390	Triclopyr	113	115	P/P	30 - 160

Reference Method: EPA 8321B
 Batch ID: P385009

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2184578	Acesulfame K	122	125	P/P	40 - 150
2184578	AMPA	94.2	87.9	P/P	40 - 150
2184578	Endothall	129	124	P/P	40 - 150
2184578	Glufosinate	92.9	102	P/P	40 - 150
2184578	Glyphosate	74.4	80.3	P/P	40 - 140
2184578	Sucralose	93.6	98.4	P/P	40 - 150

Reference Method: SM 4500 F-C-2011
 Batch ID: P385106

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2184563	Fluoride	107	106	P/P	94 - 107

Reference Method: SM 5310 B-2011
 Batch ID: P385262

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2184625	Organic Carbon	93.0	94.5	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P385059

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2184555	Turbidity	4.79	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P385318

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2184605	Chloride	0.724	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P385322

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2184605	Sulfate	0.692	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P385145

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2184711	Ammonia-N	0.640	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P385371

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2184887	Kjeldahl Nitrogen	3.12	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P385050

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2184639	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P385236

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2184639	Total-P	1.96	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P385014

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2184630	O-Phosphate-P	0.933	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 8321B
 Batch ID: P385007

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2184390	2,4-D	3.65	Spike	P	0 - 30
2184390	Acetaminophen	0.388	Spike	P	0 - 30
2184390	Acetamiprid	1.84	Spike	P	0 - 30
2184390	Afidopyropen	6.42	Spike	P	0 - 30
2184390	Bentazon	3.81	Spike	P	0 - 30
2184390	Benzovindiflupyr	7.15	Spike	P	0 - 30
2184390	Carbamazepine	1.73	Spike	P	0 - 30
2184390	Clothianidin	2.84	Spike	P	0 - 30
2184390	Dinotefuran	2.44	Spike	P	0 - 30
2184390	Diuron	1.04	Spike	P	0 - 30
2184390	Fenuron	1.55	Spike	P	0 - 30
2184390	Fluridone	6.64	Spike	P	0 - 30
2184390	Hydrocodone	1.62	Spike	P	0 - 30
2184390	Ibuprofen	16.3	Spike	P	0 - 30
2184390	Imazapyr	3.41	Spike	P	0 - 30
2184390	Imidacloprid	1.59	Spike	P	0 - 30
2184390	Linuron	9.00	Spike	P	0 - 30
2184390	Mandestrobin	0.848	Spike	P	0 - 30
2184390	MCPP	0.627	Spike	P	0 - 30
2184390	Naproxen	7.14	Spike	P	0 - 30
2184390	Primidone	5.96	Spike	P	0 - 30
2184390	Pyraclostrobin	0.825	Spike	P	0 - 30
2184390	Thiamethoxam	3.31	Spike	P	0 - 30
2184390	Tolfenpyrad	9.00	Spike	P	0 - 30
2184390	Triclopyr	2.34	Spike	P	0 - 30

Reference Method: EPA 8321B
 Batch ID: P385009

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2184578	Acesulfame K	2.50	Spike	P	0 - 30
2184578	AMPA	6.93	Spike	P	0 - 30
2184578	Endothall	3.68	Spike	P	0 - 30
2184578	Glufosinate	9.40	Spike	P	0 - 30
2184578	Glyphosate	7.67	Spike	P	0 - 30
2184578	Sucralose	5.01	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
 Batch ID: P385030

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2184709	Color (true)	5.60	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
 Batch ID: P385103

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2184563	Total Alkalinity	1.17	Sample	P	0 - 8.1

Quality Assurance Report Precision

Reference Method: SM 2540 C-2011
Batch ID: P385594

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2184494	TDS	2.30	Sample	P	0 - 10

Reference Method: SM 2540 C-2011
Batch ID: P385596

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2184624	TDS	6.98	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P385106

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2184563	Fluoride	0.464	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011
Batch ID: P385262

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2184625	Organic Carbon	0.813	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2184839
Field Sample ID: G3SD0085

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	94.5	P	30 - 160
EPA 8321B	Acetaminophen-d4	73.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	51.4	P	30 - 160
EPA 8321B	Diuron-d6	45.6	P	30 - 160
EPA 8321B	Endothall-d6	100	P	30 - 160
EPA 8321B	Endothall-d6	100	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	126	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	126	P	30 - 160
EPA 8321B	Ibuprofen-d3	75.5	P	30 - 160
EPA 8321B	Primidone-d5	76.8	P	30 - 160
EPA 8321B	Sucralose-d6	65.2	P	30 - 160
EPA 8321B	Sucralose-d6	65.2	P	30 - 160

Lab Sample ID: 2184840
Field Sample ID: G3SD0084

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	92.8	P	30 - 160
EPA 8321B	Acetaminophen-d4	87.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	63.3	P	30 - 160
EPA 8321B	Diuron-d6	55.6	P	30 - 160
EPA 8321B	Endothall-d6	111	P	30 - 160
EPA 8321B	Endothall-d6	111	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	110	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	110	P	30 - 160
EPA 8321B	Ibuprofen-d3	72.1	P	30 - 160
EPA 8321B	Primidone-d5	92.5	P	30 - 160
EPA 8321B	Sucralose-d6	102	P	30 - 160
EPA 8321B	Sucralose-d6	102	P	30 - 160

Lab Sample ID: 2184841
Field Sample ID: G3SD0166

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	92.7	P	30 - 160
EPA 8321B	Acetaminophen-d4	81.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	56.6	P	30 - 160
EPA 8321B	Diuron-d6	47.4	P	30 - 160
EPA 8321B	Endothall-d6	98.7	P	30 - 160
EPA 8321B	Endothall-d6	98.7	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	106	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	106	P	30 - 160
EPA 8321B	Ibuprofen-d3	68.7	P	30 - 160
EPA 8321B	Primidone-d5	87.1	P	30 - 160
EPA 8321B	Sucralose-d6	108	P	30 - 160
EPA 8321B	Sucralose-d6	108	P	30 - 160

Lab Sample ID: 2184842
Field Sample ID: G3SD0098

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	94.1	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 2184842
 Field Sample ID: G3SD0098

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	63.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	54.3	P	30 - 160
EPA 8321B	Diuron-d6	44.3	P	30 - 160
EPA 8321B	Endothall-d6	106	P	30 - 160
EPA 8321B	Endothall-d6	106	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	133	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	133	P	30 - 160
EPA 8321B	Ibuprofen-d3	71.9	P	30 - 160
EPA 8321B	Primidone-d5	69.2	P	30 - 160
EPA 8321B	Sucralose-d6	108	P	30 - 160
EPA 8321B	Sucralose-d6	108	P	30 - 160

Lab Sample ID: 2184843
 Field Sample ID: FB_07212020

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	89.8	P	30 - 160
EPA 8321B	Acetaminophen-d4	81.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	82.0	P	30 - 160
EPA 8321B	Diuron-d6	79.8	P	30 - 160
EPA 8321B	Endothall-d6	94.5	P	30 - 160
EPA 8321B	Endothall-d6	94.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	157	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	157	P	30 - 160
EPA 8321B	Ibuprofen-d3	76.2	P	30 - 160
EPA 8321B	Primidone-d5	84.7	P	30 - 160
EPA 8321B	Sucralose-d6	93.6	P	30 - 160
EPA 8321B	Sucralose-d6	93.6	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A100021

Included Lab Sample IDs: 2184827, 2184830

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.6	97.2	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A100025

Included Lab Sample IDs: 2184839, 2184840, 2184841, 2184842, 2184843

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	78.8	89.5	P/P	60 - 160
Acesulfame K	89.5	91.9	P/P	60 - 160
Endothall	109	111	P/P	60 - 160
Endothall	111	107	P/P	60 - 160

Reference Method: SM 2120 B-2011

Run ID: A100026

Included Lab Sample IDs: 2184825, 2184828

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A100035

Included Lab Sample IDs: 2184826, 2184829

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

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A100038

Included Lab Sample IDs: 2184825

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

Reference Method: EPA 8321B

Run ID: A100053

Included Lab Sample IDs: 2184839, 2184840, 2184841, 2184842, 2184843

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	79.5	84.7	P/P	60 - 160
AMPA	81.2	79.5	P/P	60 - 160
Glufosinate	101	98.9	P/P	60 - 160
Glufosinate	98.9	109	P/P	60 - 160
Glyphosate	89.6	93.9	P/P	60 - 160
Glyphosate	93.9	99.1	P/P	60 - 160

Reference Method: SM 2320 B-2011

Run ID: A100054

Included Lab Sample IDs: 2184825, 2184828

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
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Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-2011

Run ID: A100054

Included Lab Sample IDs: 2184825, 2184828

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.5	97.1	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A100054

Included Lab Sample IDs: 2184825, 2184828

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A100073

Included Lab Sample IDs: 2184826, 2184829

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

Reference Method: SM 5310 B-2011

Run ID: A100127

Included Lab Sample IDs: 2184826, 2184829

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.6	96.2	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A100141

Included Lab Sample IDs: 2184839, 2184840, 2184841, 2184842, 2184843

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	82.2	96.2	P/P	60 - 160
Sucralose	96.2	97.7	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A100147

Included Lab Sample IDs: 2184839, 2184840, 2184841, 2184842, 2184843

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	108	95.2	P/P	50 - 150
2,4-D	95.2	85.2	P/P	50 - 150
Acetaminophen	103	98.0	P/P	60 - 160
Acetaminophen	98.0	106	P/P	60 - 160
Acetamiprid	114	114	P/P	50 - 150
Acetamiprid	119	114	P/P	50 - 150
Afidopyropen	104	108	P/P	50 - 150
Afidopyropen	109	104	P/P	50 - 150
Bentazon	79.3	90.2	P/P	50 - 160
Bentazon	90.2	100	P/P	50 - 160
Benzovindiflupyr	111	106	P/P	50 - 150
Benzovindiflupyr	116	111	P/P	50 - 150
Carbamazepine	104	105	P/P	60 - 150
Carbamazepine	105	103	P/P	60 - 150
Clothianidin	100	108	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A100147

Included Lab Sample IDs: 2184839, 2184840, 2184841, 2184842, 2184843

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Clothianidin	109	100	P/P	60 - 150
Dinotefuran	100	99.6	P/P	50 - 150
Dinotefuran	103	100	P/P	50 - 150
Diuron	104	103	P/P	60 - 160
Diuron	107	104	P/P	60 - 160
Fenuron	108	113	P/P	60 - 150
Fenuron	112	108	P/P	60 - 150
Fluridone	103	109	P/P	60 - 160
Fluridone	103	103	P/P	60 - 160
Hydrocodone	105	98.2	P/P	60 - 150
Hydrocodone	107	105	P/P	60 - 150
Ibuprofen	92.7	95.8	P/P	50 - 160
Ibuprofen	95.8	77.9	P/P	50 - 160
Imazapyr	86.8	93.5	P/P	50 - 150
Imazapyr	93.5	85.6	P/P	50 - 150
Imidacloprid	107	99.5	P/P	60 - 150
Imidacloprid	99.5	103	P/P	60 - 150
Linuron	104	104	P/P	60 - 150
Linuron	104	103	P/P	60 - 150
Mandestrobin	116	119	P/P	50 - 150
Mandestrobin	120	116	P/P	50 - 150
MCPP	110	102	P/P	50 - 150
MCPP	111	110	P/P	50 - 150
Naproxen	119	93.3	P/P	50 - 160
Naproxen	93.3	90.8	P/P	50 - 160
Primidone	101	98.5	P/P	60 - 150
Primidone	98.5	101	P/P	60 - 150
Pyraclostrobin	102	101	P/P	60 - 150
Pyraclostrobin	110	102	P/P	60 - 150
Thiamethoxam	102	97.3	P/P	50 - 150
Thiamethoxam	97.3	96.3	P/P	50 - 150
Tolfenpyrad	104	91.1	P/P	60 - 150
Tolfenpyrad	91.1	89.1	P/P	60 - 150
Triclopyr	109	93.9	P/P	50 - 150
Triclopyr	93.9	84.4	P/P	50 - 150

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A100152

Included Lab Sample IDs: 2184825, 2184828

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	101	P/P	90 - 110
Sulfate	99.8	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A100162

Included Lab Sample IDs: 2184826

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A100186

Included Lab Sample IDs: 2184829

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.8	99.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A100209

Included Lab Sample IDs: 2184826, 2184829

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	99.6	95.5	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		LCS	Precision	MS
						SMP	
EPA 180.1 Rev. 2.0	Turbidity					4.79	
EPA 300.0 Rev. 2.1	Chloride	100	99.2	99.7		0.724	
	Sulfate	98.8	96.5	98.2		0.692	
EPA 350.1 Rev. 2.0	Ammonia-N	99.2	99.8	98.8			0.640
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103	108	113			3.12
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	99.5	99.0	99.0			0.0
EPA 365.1 Rev. 2.0	Total-P	103	106	108			1.96
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.7	96.0	96.9			0.933
EPA 8321B	2,4-D	109	133	127			3.65
	Acesulfame K	78.8	122	125			2.50
	Acetaminophen	74.5	79.6	80.1			0.388
	Acetamiprid	83.9	73.9	72.5			1.84
	Afidopyropen	73.0	73.1	68.5			6.42
	AMPA	81.6	94.2	87.9			6.93
	Bentazon	59.3	46.4	43.9			3.81
	Benzovindiflupyr	82.3	77.5	72.2			7.15
	Carbamazepine	73.2	58.0	59.1			1.73
	Clothianidin	86.0	72.1	70.1			2.84
	Dinotefuran	90.6	93.6	91.4			2.44
	Diuron	68.4	53.1	53.6			1.04
	Endothall	98.9	129	124			3.68
	Fenuron	99.8	84.0	82.8			1.55
	Fluridone	109	102	94.7			6.64
	Glufosinate	99.9	92.9	102			9.40
	Glyphosate	97.9	74.4	80.3			7.67
	Hydrocodone	82.2	68.9	70.0			1.62
	Ibuprofen	87.7	82.2	69.8			16.3
	Imazapyr	86.9	95.1	101			3.41
	Imidacloprid	93.9	132	134			1.59
	Linuron	75.5	67.0	61.2			9.00
	Mandestrobin	90.5	79.6	79.0			0.848
	MCP	131	137	138			0.627
	Naproxen	74.7	60.0	64.4			7.14
	Primidone	78.8	82.5	87.8			5.96
	Pyraclostrobin	95.6	75.3	74.7			0.825
	Sucralose	89.3	93.6	98.4			5.01
	Thiamethoxam	96.7	104	101			3.31
	Tolfenpyrad	66.0	52.4	57.4			9.00
	Triclopyr	99.8	113	115			2.34
SM 2120 B-2011	Color (true)	101				5.60	
SM 2320 B-2011	Total Alkalinity	100				1.17	
SM 2540 C-2011	TDS					2.30	
	TDS					6.98	
SM 4500 F-C-2011	Fluoride	100	107	106			0.464
SM 5310 B-2011	Organic Carbon	97.0	93.0	94.5			0.813

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2184825
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2184825, 2184828
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2184825, 2184828
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2184826, 2184829

Reference Method Descriptions

Method	Description	Associated Samples
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2184826, 2184829
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2184826, 2184829
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2184826, 2184829
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2184827, 2184830
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2184839, 2184840, 2184841, 2184842, 2184843
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2184839, 2184840, 2184841, 2184842, 2184843
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2184825, 2184828
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2184825, 2184828
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2184825, 2184828
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2184825, 2184828
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2184825, 2184828
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2184826, 2184829

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	07/22/2020			07/22/2020 16:45	Blanca Fach	2184825
EPA 300.0 Rev. 2.1	07/22/2020			07/29/2020 05:17	Julia Storbeck	2184825
	07/22/2020			07/29/2020 05:29	Julia Storbeck	2184828
EPA 350.1 Rev. 2.0	07/22/2020			07/25/2020 13:42	Ping Hua	2184826
	07/22/2020			07/25/2020 13:51	Ping Hua	2184829
EPA 351.2 Rev. 2.0	07/22/2020	07/30/2020 12:15	Jhamieka S. Greenwood	07/31/2020 13:23	Jhamieka S. Greenwood	2184826
	07/22/2020	07/30/2020 12:15	Jhamieka S. Greenwood	07/31/2020 13:24	Jhamieka S. Greenwood	2184829
EPA 353.2 Rev. 2.0	07/22/2020			07/23/2020 09:44	Beverly Y. Sanders	2184826
	07/22/2020			07/23/2020 09:46	Beverly Y. Sanders	2184829
EPA 365.1 Rev. 2.0	07/22/2020	07/28/2020 10:00	Lipi Saha	07/29/2020 14:54	Benjamin T. Nordmann	2184826
	07/22/2020	07/28/2020 10:00	Lipi Saha	07/30/2020 13:15	Benjamin T. Nordmann	2184829
EPA 365.1 Rev. 2.0 dissolved	07/22/2020			07/22/2020 15:05	Jhamieka S. Greenwood	2184830
	07/22/2020			07/22/2020 15:08	Jhamieka S. Greenwood	2184827
EPA 8321B	07/22/2020	07/22/2020 15:30	Rebecca Ware	07/22/2020 17:40	Rebecca Ware	2184839
	07/22/2020	07/22/2020 15:30	Rebecca Ware	07/22/2020 18:08	Rebecca Ware	2184840
	07/22/2020	07/22/2020 15:30	Rebecca Ware	07/22/2020 18:22	Rebecca Ware	2184841
	07/22/2020	07/22/2020 15:30	Rebecca Ware	07/22/2020 18:35	Rebecca Ware	2184842
	07/22/2020	07/22/2020 15:30	Rebecca Ware	07/22/2020 18:49	Rebecca Ware	2184843
	07/22/2020	07/22/2020 15:30	Rebecca Ware	07/23/2020 10:13	Mohammad Ghaffari	2184839
	07/22/2020	07/22/2020 15:30	Rebecca Ware	07/23/2020 10:34	Mohammad Ghaffari	2184840
	07/22/2020	07/22/2020 15:30	Rebecca Ware	07/23/2020 10:45	Mohammad Ghaffari	2184841
	07/22/2020	07/22/2020 15:30	Rebecca Ware	07/23/2020 10:55	Mohammad Ghaffari	2184842
	07/22/2020	07/22/2020 15:30	Rebecca Ware	07/23/2020 11:06	Mohammad Ghaffari	2184843
	07/22/2020	07/22/2020 15:30	Rebecca Ware	07/28/2020 09:15	Mohammad Ghaffari	2184839
	07/22/2020	07/22/2020 15:30	Rebecca Ware	07/28/2020 09:39	Mohammad Ghaffari	2184840
	07/22/2020	07/22/2020 15:30	Rebecca Ware	07/28/2020 09:51	Mohammad Ghaffari	2184841
	07/22/2020	07/22/2020 15:30	Rebecca Ware	07/28/2020 10:02	Mohammad Ghaffari	2184842
	07/22/2020	07/22/2020 15:30	Rebecca Ware	07/28/2020 10:14	Mohammad Ghaffari	2184843
	07/22/2020	07/24/2020 09:00	Hoor Shaik	07/28/2020 23:01	Juyoung Kim	2184839
	07/22/2020	07/24/2020 09:00	Hoor Shaik	07/28/2020 23:36	Juyoung Kim	2184840
	07/22/2020	07/24/2020 09:00	Hoor Shaik	07/29/2020 00:11	Juyoung Kim	2184841
	07/22/2020	07/24/2020 09:00	Hoor Shaik	07/29/2020 01:20	Juyoung Kim	2184842
	07/22/2020	07/24/2020 09:00	Hoor Shaik	07/29/2020 01:55	Juyoung Kim	2184843
SM 2120 B-2011	07/22/2020			07/22/2020 16:33	Benjamin T. Nordmann	2184828
	07/22/2020			07/22/2020 16:49	Benjamin T. Nordmann	2184825
SM 2320 B-2011	07/22/2020			07/24/2020 00:07	Dale L. Simmons	2184825
	07/22/2020			07/24/2020 00:16	Dale L. Simmons	2184828
SM 2540 C-2011	07/22/2020			07/27/2020 14:36	Yijie Li	2184825, 2184828
SM 2540 D-2011	07/22/2020			07/27/2020 14:36	Yijie Li	2184825, 2184828
SM 4500 F-C-2011	07/22/2020			07/24/2020 00:07	Dale L. Simmons	2184825

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 4500 F-C-2011	07/22/2020			07/24/2020 00:16	Dale L. Simmons	2184828
SM 5310 B-2011	07/22/2020			07/28/2020 04:00	David Boose	2184826
	07/22/2020			07/28/2020 04:12	David Boose	2184829