

Chemical Analysis Report

CEN-DIST-2020-11-24-01

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

Event Description: **Unnamed Ditches 2939 / Unnamed Ditches 2940**
Request ID: **RQ-2020-09-07-44**
Customer: **CEN-DIST**
Project ID: **SMP**

Send Reports to:
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Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 16-DEC-2020 08:10

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

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: Unnamed Ditch @ 30m West Of Riverside Dr. Collection Date/Time: 11/23/2020 14:26

Field ID: G5CE0120

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2209030	EPA 180.1 Rev. 2.0	Turbidity	2.1		NTU	P390434	
	EPA 300.0 Rev. 2.1	Chloride	67		mg Cl/L	P390527	
		Sulfate	14		mg SO4/L	P390528	
	SM 2120 B-2011	Color (true)	76	A	PCU	P390428	
	SM 2320 B-2011	Total Alkalinity	196		mg CaCO3/L	P390499	
	SM 2540 C-2011	TDS	370	A	mg/L	P390772	
	SM 2540 D-2011	TSS	4	IA	mg/L	P390767	
	SM 4500 F-C-2011	Fluoride	0.20		mg F/L	P390502	
2209031	EPA 350.1 Rev. 2.0	Ammonia-N	0.069		mg N/L	P390491	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.97		mg N/L	P390573	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.32		mg N/L	P390557	
	EPA 365.1 Rev. 2.0	Total-P	0.23		mg P/L	P390617	
	SM 5310 B-2011	Organic Carbon	16		mg C/L	P390551	
2209032	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.18		mg P/L	P390430	
2209035	EPA 8321B	2,4-D	0.010		ug/L	P390314	
		Acesulfame K**	0.10	U	ug/L	P390403	
		AMPA**	0.32	I	ug/L	P390403	
		Sucralose**	1.3		ug/L	P390403	
		Acetaminophen**	0.0080	U	ug/L	P390314	
		Acetamiprid**	0.0020	U	ug/L	P390314	
		Endothall**	0.25	U	ug/L	P390403	
		Glufosinate**	0.10	U	ug/L	P390403	
		Glyphosate**	0.28	I	ug/L	P390403	
		Afidopyropen**	0.0020	U	ug/L	P390314	RPD
		Bentazon	0.80		ug/L	P390102	
		Benzovindiflupyr**	0.0020	U	ug/L	P390314	
		Carbamazepine**	0.0029	I	ug/L	P390314	
		Clothianidin**	0.017		ug/L	P390314	
		Dinotefuran**	0.0020	U	ug/L	P390314	
		Diuron	0.027		ug/L	P390314	
		Fenuron	0.016	U	ug/L	P390314	
		Fluridone**	0.0041		ug/L	P390314	
		Imazapyr**	0.047		ug/L	P390314	
		Hydrocodone**	0.0020	U	ug/L	P390314	
		Ibuprofen**	0.020	U	ug/L	P390314	RPD
		Imidacloprid	0.048		ug/L	P390314	
		Linuron	0.0040	U	ug/L	P390314	
		Mandestrobin**	0.0020	U	ug/L	P390314	
		MCP	0.0042	I	ug/L	P390314	
		Naproxen**	0.0080	U	ug/L	P390314	RPD
		Primidone**	0.0040	UJ	ug/L	P390314	SUR
		Pyraclostrobin**	0.0020	U	ug/L	P390314	
		Thiamethoxam**	0.0020	U	ug/L	P390314	

Field ID: G5CE0120

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2209035	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P390314	
		Triclopyr**	0.0040	U	ug/L	P390314	
2209036	EPA 200.7 Rev. 4.4	Iron	140		ug/L	P390518	
		Manganese	6.9		ug/L	P390518	
		Zinc	5.0	U	ug/L	P390518	
	EPA 200.8 Rev. 5.4	Aluminum	97		ug/L	P390518	
		Antimony	0.10	I	ug/L	P390518	
		Arsenic	1.04		ug/L	P390518	
		Beryllium	0.010	I	ug/L	P390518	
		Cadmium	0.020	U	ug/L	P390518	
		Chromium	0.58	I	ug/L	P390518	
		Copper	0.74	I	ug/L	P390518	
		Lead	0.20	U	ug/L	P390518	
		Nickel	0.50	U	ug/L	P390518	
		Selenium	0.20	I	ug/L	P390518	
		Silver	0.010	U	ug/L	P390518	
		Thallium	0.10	U	ug/L	P390518	
	SM 2340B	Hardness	225		mg/L	P390518	
2209037	EPA 8270E	Acetochlor	0.26	U	ng/L	P390440	
		Alachlor	0.26	U	ng/L	P390440	
		Ametryn	0.62	U	ng/L	P390440	
		Atrazine	840	J	ng/L	P390440	RPD
		Atrazine Desethyl	56		ng/L	P390440	
		Azinphos Methyl	2.1	UJ	ng/L	P390440	MS, RPD
		Azoxystrobin**	1.4	IJ	ng/L	P390440	LCS
		Bromacil	0.51	U	ng/L	P390440	
		Butylate	0.41	U	ng/L	P390440	
		Carbophenothion	0.51	U	ng/L	P390440	
		Carfentrazone Ethyl**	0.10	U	ng/L	P390440	
		Chlorpyrifos Ethyl	0.26	U	ng/L	P390440	
		Chlorpyrifos Methyl	0.051	U	ng/L	P390440	
		Cyanazine	3.3	U	ng/L	P390440	
		Demeton	1.5	U	ng/L	P390440	
		Diazinon	0.13	U	ng/L	P390440	
		Difenoconazole**	0.62	U	ng/L	P390440	
		Dimethenamid**	0.10	U	ng/L	P390440	
		Disulfoton	0.51	U	ng/L	P390440	
		Dithiopyr**	0.25	I	ng/L	P390440	
		EPTC	1.3	U	ng/L	P390440	
		Ethion	0.15	UJ	ng/L	P390440	RPD
		Ethoprop	0.10	U	ng/L	P390440	
		Fenamiphos	0.51	UJ	ng/L	P390440	MS, RPD
		Fenbuconazole**	0.13	U	ng/L	P390440	
		Fipronil	0.87	I	ng/L	P390440	
		Fipronil Desulfinyl**	0.28	I	ng/L	P390440	

Field ID: G5CE0120

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2209037	EPA 8270E	Fipronil Sulfide	1.9	J	ng/L	P390440	MS
		Fipronil Sulfone	3.4		ng/L	P390440	
		Fluazifop-P-butyl**	0.10	U	ng/L	P390440	
		Fludioxonil**	0.13	U	ng/L	P390440	
		Flumioxazin**	1.8	U	ng/L	P390440	
		Flutolanil**	0.10	U	ng/L	P390440	
		Fluxapyroxad**	0.10	U	ng/L	P390440	
		Fonofos	0.21	U	ng/L	P390440	
		Hexazinone	0.51	U	ng/L	P390440	
		Imazalil**	0.77	U	ng/L	P390440	
		Iprodione**	0.62	U	ng/L	P390440	
		Malathion	0.36	UJ	ng/L	P390440	MS
		Metaxyl	0.77	U	ng/L	P390440	
		Metolachlor	0.51	U	ng/L	P390440	
		Metribuzin	3.3	U	ng/L	P390440	
		Mevinphos	0.51	U	ng/L	P390440	
		Molinate	0.31	U	ng/L	P390440	
		Myclobutanil**	0.26	U	ng/L	P390440	
		Naled**	1.5	U	ng/L	P390440	
		Norflurazon	0.51	U	ng/L	P390440	
		Oxadiazon	0.10	U	ng/L	P390440	
		Oxyfluorfen**	0.15	U	ng/L	P390440	
		Parathion Ethyl	0.26	U	ng/L	P390440	
		Parathion Methyl	0.57	U	ng/L	P390440	
		Pendimethalin	1.0	U	ng/L	P390440	
		Phorate	0.26	U	ng/L	P390440	
		Prodiamine**	0.53	IJ	ng/L	P390440	MS
		Prometon	0.93	U	ng/L	P390440	
		Prometryn	0.21	U	ng/L	P390440	
		Pronamide**	0.15	U	ng/L	P390440	
		Propiconazole**	0.80	I	ng/L	P390440	
		Pyriproxyfen**	0.13	UJ	ng/L	P390440	MS, RPD
		Simazine	73		ng/L	P390440	
		Sulfentrazone**	27		ng/L	P390440	
		Tebuconazole**	0.55	IJ	ng/L	P390440	MS, RPD
		Terbufos	0.10	U	ng/L	P390440	
		Terbuthylazine	2.9		ng/L	P390440	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

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

EPA 8321B: "J" - estimation due to primidone-d5 surrogate spike recovery exceeding the control limits. Results confirmed in re-extraction. Refer to the Lab Analysis Report for an explanation of QC Codes.

EPA 8270E: MS accuracy for some parameters not assessed due to high content of these parameters in the sample spiked. 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: P390434

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P390518

Component	Result	Code	Units
Iron	30	U	ug/L
Manganese	1.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P390518

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Beryllium	0.010	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 Rev. 2.1
Batch ID: P390527

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P390528

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P390491

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P390573

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P390557

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P390617

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P390430

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

Reference Method: EPA 8270E
 Batch ID: P390440

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azoxystrobin	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Carbophenothion	0.50	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Cyanazine	3.2	U	ng/L
Demeton	1.5	U	ng/L
Diazinon	0.12	U	ng/L
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.10	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.12	U	ng/L
Flumioxazin	1.8	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E
Batch ID: P390440

Component	Result	Code	Units
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.75	U	ng/L
Iprodione	0.60	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.75	U	ng/L
Metolachlor	0.50	U	ng/L
Metribuzin	3.2	U	ng/L
Mevinphos	0.50	U	ng/L
Molinate	0.30	U	ng/L
Myclobutanil	0.25	U	ng/L
Naled	1.5	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.10	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.25	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Pronamide	0.15	U	ng/L
Propiconazole	0.50	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Simazine	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbutylazine	0.42	U	ng/L

Reference Method: EPA 8321B
Batch ID: P390102

Component	Result	Code	Units
Bentazon	8.0E-04	U	ug/L

Reference Method: EPA 8321B
Batch ID: P390314

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
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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P390314

Component	Result	Code	Units
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: P390403

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: P390428

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P390499

Component	Result	Code	Units
Total Alkalinity	0.65	U	mg CaCO ₃ /L

Reference Method: SM 2540 C-2011
Batch ID: P390772

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P390767

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 4500 F-C-2011
Batch ID: P390502

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P390551

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: P390518

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Iron	107		P	85 - 115
Manganese	105		P	85 - 115
Zinc	102		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P390518

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	96.4		P	85 - 115
Antimony	100		P	85 - 115
Arsenic	101		P	85 - 115
Beryllium	94.0		P	85 - 115
Cadmium	98.6		P	85 - 115
Chromium	97.7		P	85 - 115
Copper	98.6		P	85 - 115
Lead	98.1		P	85 - 115
Nickel	98.1		P	85 - 115
Selenium	101		P	85 - 115
Silver	103		P	85 - 115
Thallium	99.0		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P390527

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	99.4		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P390528

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P390491

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P390573

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P390557

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P390617

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P390430

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

Reference Method: EPA 8270E

Batch ID: P390440

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	97.2	98.0	P/P	71 - 122
Alachlor	90.4	86.2	P/P	70 - 121
Ametryn	95.4	104	P/P	49 - 137
Atrazine	94.8	99.6	P/P	76 - 125
Atrazine Desethyl	92.9	95.2	P/P	31 - 144
Azinphos Methyl	112	112	P/P	67 - 150
Azoxystrobin	166	173	P/F	70 - 170
Bromacil	93.7	91.9	P/P	36 - 121
Butylate	70.6	78.2	P/P	33 - 88.0
Carbophenothion	84.0	94.7	P/P	66 - 116
Carfentrazone Ethyl	93.1	94.3	P/P	50 - 150
Chlorpyrifos Ethyl	83.2	94.5	P/P	73 - 117
Chlorpyrifos Methyl	91.4	95.3	P/P	68 - 121
Cyanazine	146	161	P/P	20 - 250
Demeton	84.4	91.7	P/P	30 - 123
Diazinon	91.1	96.8	P/P	70 - 128
Difenoconazole	116	124	P/P	50 - 150
Dimethenamid	93.1	85.0	P/P	66 - 122
Disulfoton	79.5	92.2	P/P	46 - 124
Dithiopyr	84.9	95.2	P/P	69 - 122
EPTC	68.1	73.0	P/P	31 - 90.0
Ethion	81.4	78.6	P/P	45 - 135
Ethoprop	88.5	93.8	P/P	59 - 118
Fenamiphos	93.7	89.7	P/P	30 - 136
Fenbuconazole	94.3	101	P/P	50 - 150
Fipronil	97.2	93.0	P/P	57 - 127
Fipronil Desulfinyl	88.7	88.0	P/P	51 - 122
Fipronil Sulfide	87.7	90.3	P/P	57 - 119
Fipronil Sulfone	96.2	95.9	P/P	51 - 119
Fluazifop-P-butyl	91.5	99.0	P/P	50 - 150
Fludioxonil	92.4	88.6	P/P	50 - 150
Flumioxazin	159	177	P/P	20 - 250
Flutolanil	86.2	82.0	P/P	50 - 150
Fluxapyroxad	92.9	87.4	P/P	50 - 150
Fonofos	84.9	91.1	P/P	60 - 120
Hexazinone	90.8	93.5	P/P	57 - 142
Imazalil	94.2	94.5	P/P	30 - 139
Iprodione	82.7	83.6	P/P	50 - 150
Malathion	106	104	P/P	67 - 128
Metaxyl	97.6	96.8	P/P	21 - 148

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P390440

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Metolachlor	95.9	98.0	P/P	70 - 120
Metribuzin	103	115	P/P	20 - 250
Mevinphos	90.6	96.0	P/P	47 - 116
Molinate	75.6	81.5	P/P	41 - 99.0
Myclobutanil	97.7	88.9	P/P	50 - 150
Naled	61.8	63.5	P/P	38 - 97.0
Norflurazon	92.7	85.0	P/P	54 - 127
Oxadiazon	81.9	87.5	P/P	65 - 122
Oxyfluorfen	101	110	P/P	50 - 150
Parathion Ethyl	89.4	90.6	P/P	71 - 113
Parathion Methyl	93.9	98.2	P/P	73 - 129
Pendimethalin	76.6	92.2	P/P	63 - 130
Phorate	71.9	82.6	P/P	48 - 118
Prodiamine	68.8	84.9	P/P	20 - 144
Prometon	89.8	88.9	P/P	53 - 120
Prometryn	99.8	95.1	P/P	63 - 119
Pronamide	99.0	98.7	P/P	81 - 122
Propiconazole	92.6	90.1	P/P	62 - 124
Pyriproxyfen	78.7	81.1	P/P	50 - 150
Simazine	107	102	P/P	77 - 129
Sulfentrazone	47.0	46.8	P/P	20 - 137
Tebuconazole	69.5	58.4	P/P	20 - 118
Terbufos	80.8	93.9	P/P	61 - 119
Terbuthylazine	97.3	99.8	P/P	75 - 119

Reference Method: EPA 8321B

Batch ID: P390102

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Bentazon	41.9		P	30 - 150

Reference Method: EPA 8321B

Batch ID: P390314

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	69.8		P	30 - 160
Acetaminophen	73.4		P	30 - 150
Acetamiprid	84.3		P	30 - 160
Afidopyropen	40.1		P	30 - 160
Benzovindiflupyr	90.7		P	30 - 160
Carbamazepine	71.7		P	30 - 160
Clothianidin	89.2		P	30 - 160
Dinotefuran	84.1		P	30 - 160
Diuron	77.2		P	30 - 160
Fenuron	92.3		P	30 - 160
Fluridone	74.6		P	30 - 160
Hydrocodone	99.9		P	30 - 160
Ibuprofen	44.0		P	30 - 160
Imazapyr	85.2		P	30 - 160
Imidacloprid	70.9		P	30 - 160
Linuron	69.1		P	30 - 160
Mandestrobin	83.2		P	30 - 160

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P390314

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
MCP	68.2		P	30 - 160
Naproxen	45.1		P	30 - 160
Primidone	104		P	30 - 160
Pyraclostrobin	72.3		P	30 - 160
Thiamethoxam	97.0		P	30 - 160
Tolfenpyrad	46.6		P	30 - 160
Triclopyr	54.0		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P390403

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	82.4		P	40 - 150
AMPA	104		P	40 - 150
Endothall	112		P	40 - 150
Glufosinate	107		P	40 - 150
Glyphosate	118		P	40 - 140
Sucralose	107		P	40 - 150

Reference Method: SM 2120 B-2011
Batch ID: P390428

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	104		P	85 - 115

Reference Method: SM 2320 B-2011
Batch ID: P390499

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.5		P	93 - 104

Reference Method: SM 4500 F-C-2011
Batch ID: P390502

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.9		P	90 - 106

Reference Method: SM 5310 B-2011
Batch ID: P390551

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	101		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P390518

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2209005	Iron	104		P	80 - 120
2209005	Manganese	101		P	80 - 120
2209005	Zinc	98.5		P	80 - 120
2209362	Iron	107	104	P/P	80 - 120
2209362	Manganese	102	102	P/P	80 - 120
2209362	Zinc	98.0	98.5	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P390518

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2209005	Aluminum	100		P	80 - 120
2209005	Antimony	99.9		P	80 - 120
2209005	Arsenic	98.6		P	80 - 120
2209005	Beryllium	93.2		P	80 - 120
2209005	Cadmium	98.5		P	80 - 120
2209005	Chromium	101		P	80 - 120
2209005	Copper	100		P	80 - 120
2209005	Lead	99.3		P	80 - 120
2209005	Nickel	102		P	80 - 120
2209005	Selenium	94.3		P	80 - 120
2209005	Silver	101		P	80 - 120
2209005	Thallium	101		P	80 - 120
2209362	Aluminum	100	95.5	P/P	80 - 120
2209362	Antimony	99.9	100	P/P	80 - 120
2209362	Arsenic	101	100	P/P	80 - 120
2209362	Beryllium	96.2	104	P/P	80 - 120
2209362	Cadmium	99.1	99.7	P/P	80 - 120
2209362	Chromium	98.9	96.7	P/P	80 - 120
2209362	Copper	101	107	P/P	80 - 120
2209362	Lead	98.9	97.6	P/P	80 - 120
2209362	Nickel	101	99.0	P/P	80 - 120
2209362	Selenium	101	101	P/P	80 - 120
2209362	Silver	101	101	P/P	80 - 120
2209362	Thallium	101	99.5	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P390527

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2208998	Chloride	98.5		P	90 - 110
2209077	Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P390528

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2208998	Sulfate	97.4		P	90 - 110
2209077	Sulfate	100		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P390491

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2209049	Ammonia-N	99.7	99.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P390573

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2208803	Kjeldahl Nitrogen	96.0	93.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P390557

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2209031	NO2NO3-N	98.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P390617

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2209051	Total-P	104	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P390430

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2209290	O-Phosphate-P	100	102	P/P	90 - 110

Reference Method: EPA 8270E
 Batch ID: P390440

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2209037	Acetochlor	100	106	P/P	68 - 126
2209037	Alachlor	94.9	98.4	P/P	66 - 125
2209037	Ametryn	136	158	P/P	31 - 182
2209037	Azinphos Methyl	223	101	F/P	54 - 162
2209037	Azoxystrobin	152	156	P/P	70 - 170
2209037	Bromacil	94.9	83.8	P/P	34 - 144
2209037	Butylate	65.8	69.9	P/P	16 - 92.0
2209037	Carbophenothion	125	97.9	P/P	30 - 131
2209037	Carfentrazone Ethyl	113	107	P/P	50 - 150
2209037	Chlorpyrifos Ethyl	116	89.5	P/P	63 - 124
2209037	Chlorpyrifos Methyl	119	96.0	P/P	64 - 125
2209037	Cyanazine	153	134	P/P	13 - 245
2209037	Demeton	101	89.3	P/P	20 - 154
2209037	Diazinon	89.7	106	P/P	66 - 141
2209037	Difenoconazole	100	113	P/P	50 - 150
2209037	Dimethenamid	96.2	95.2	P/P	50 - 130
2209037	Disulfoton	111	89.2	P/P	55 - 130
2209037	Dithiopyr	90.3	101	P/P	66 - 122
2209037	EPTC	66.7	67.3	P/P	15 - 93.0
2209037	Ethion	134	82.6	P/P	15 - 148
2209037	Ethoprop	95.3	93.9	P/P	59 - 126
2209037	Fenamiphos	137	88.9	F/P	39 - 137

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P390440

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2209037	Fenbuconazole	110	118	P/P	50 - 150
2209037	Fipronil	86.7	107	P/P	47 - 131
2209037	Fipronil Desulfinyl	105	102	P/P	43 - 121
2209037	Fipronil Sulfide	141	91.4	F/P	29 - 134
2209037	Fluazifop-P-butyl	98.0	108	P/P	50 - 150
2209037	Fludioxonil	104	99.0	P/P	50 - 150
2209037	Flumioxazin	228	230	P/P	10 - 300
2209037	Flutolanil	126	97.4	P/P	50 - 150
2209037	Fluxapyroxad	123	99.4	P/P	50 - 150
2209037	Fonofos	98.7	90.3	P/P	62 - 128
2209037	Hexazinone	108	101	P/P	58 - 154
2209037	Imazalil	67.5	85.1	P/P	10 - 215
2209037	Iprodione	117	94.5	P/P	50 - 150
2209037	Malathion	137	109	F/P	54 - 135
2209037	Metalaxyl	99.3	102	P/P	46 - 136
2209037	Metolachlor	105	105	P/P	62 - 126
2209037	Metribuzin	98.9	109	P/P	44 - 277
2209037	Mevinphos	87.2	84.6	P/P	44 - 135
2209037	Molinate	75.0	79.8	P/P	31 - 104
2209037	Myclobutanil	121	101	P/P	50 - 150
2209037	Naled	66.6	58.5	P/P	33 - 113
2209037	Norflurazon	118	103	P/P	32 - 134
2209037	Oxadiazon	123	97.6	P/P	55 - 123
2209037	Oxyfluorfen	125	137	P/P	50 - 150
2209037	Parathion Ethyl	99.5	93.4	P/P	67 - 120
2209037	Parathion Methyl	95.7	95.8	P/P	70 - 140
2209037	Pendimethalin	101	106	P/P	59 - 145
2209037	Phorate	111	97.8	P/P	52 - 127
2209037	Prodiamine	158	156	F/P	11 - 157
2209037	Prometon	88.1	92.2	P/P	55 - 130
2209037	Prometryn	98.3	103	P/P	55 - 127
2209037	Pronamide	87.4	108	P/P	66 - 150
2209037	Propiconazole	124	100	P/P	14 - 178
2209037	Pyriproxyfen	204	85.9	F/P	50 - 150
2209037	Tebuconazole	131	75.2	F/P	10 - 122
2209037	Terbufos	103	96.4	P/P	65 - 131
2209037	Terbutylazine	89.9	105	P/P	63 - 131

Reference Method: EPA 8321B
Batch ID: P390102

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2207871	Bentazon	32.2	32.0	P/P	30 - 150

Reference Method: EPA 8321B
Batch ID: P390314

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2208625	2,4-D	53.4	63.4	P/P	30 - 160
2208625	Acetaminophen	108	108	P/P	30 - 150
2208625	Acetamiprid	82.1	73.8	P/P	30 - 160
2208625	Afidopyropen	56.7	39.7	P/P	30 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
 Batch ID: P390314

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2208625	Benzovindiflupyr	99.4	85.3	P/P	30 - 160
2208625	Carbamazepine	82.2	75.9	P/P	30 - 160
2208625	Clothianidin	78.6	80.3	P/P	30 - 160
2208625	Dinotefuran	102	103	P/P	30 - 160
2208625	Diuron	77.5	80.0	P/P	30 - 160
2208625	Fenuron	94.1	97.3	P/P	30 - 160
2208625	Fluridone	79.6	75.2	P/P	30 - 160
2208625	Hydrocodone	92.0	107	P/P	30 - 160
2208625	Ibuprofen	40.7	60.7	P/P	30 - 160
2208625	Imazapyr	68.6	76.6	P/P	30 - 160
2208625	Imidacloprid	81.0	77.2	P/P	30 - 160
2208625	Linuron	74.2	74.1	P/P	30 - 160
2208625	Mandestrobin	101	96.2	P/P	30 - 160
2208625	MCP	61.3	67.9	P/P	30 - 160
2208625	Naproxen	91.1	58.0	P/P	30 - 160
2208625	Primidone	67.0	71.4	P/P	30 - 160
2208625	Pyraclostrobin	79.9	77.8	P/P	30 - 160
2208625	Thiamethoxam	106	102	P/P	30 - 160
2208625	Tolfenpyrad	53.8	62.0	P/P	30 - 160
2208625	Triclopyr	49.4	51.4	P/P	30 - 160

Reference Method: EPA 8321B
 Batch ID: P390403

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2208941	Acesulfame K	68.2	70.9	P/P	40 - 150
2208941	AMPA	63.2	59.0	P/P	40 - 150
2208941	Endothall	129	131	P/P	40 - 150
2208941	Glufosinate	88.5	93.7	P/P	40 - 150
2208941	Glyphosate	80.0	89.6	P/P	40 - 140
2208941	Sucralose	111	113	P/P	40 - 150

Reference Method: SM 4500 F-C-2011
 Batch ID: P390502

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2209009	Fluoride	98.4	98.4	P/P	94 - 107

Reference Method: SM 5310 B-2011
 Batch ID: P390551

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2209050	Organic Carbon	104	106	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P390434

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2208998	Turbidity	3.47	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P390518

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2209362	Iron	2.35	Spike	P	0 - 20
2209362	Manganese	0.00161	Spike	P	0 - 20
2209362	Zinc	0.505	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P390518

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2209362	Aluminum	4.52	Spike	P	0 - 20
2209362	Antimony	0.120	Spike	P	0 - 20
2209362	Arsenic	1.36	Spike	P	0 - 20
2209362	Beryllium	7.85	Spike	P	0 - 20
2209362	Cadmium	0.532	Spike	P	0 - 20
2209362	Chromium	2.26	Spike	P	0 - 20
2209362	Copper	5.09	Spike	P	0 - 20
2209362	Lead	1.27	Spike	P	0 - 20
2209362	Nickel	2.30	Spike	P	0 - 20
2209362	Selenium	0.0746	Spike	P	0 - 20
2209362	Silver	0.326	Spike	P	0 - 20
2209362	Thallium	1.27	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P390527

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2208998	Chloride	0.402	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P390491

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2209049	Ammonia-N	0.221	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P390573

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2208803	Kjeldahl Nitrogen	2.62	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P390557

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2209031	NO2NO3-N	0.386	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P390617

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2209051	Total-P	0.724	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P390430

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2209290	O-Phosphate-P	1.49	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P390440

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2209037	Acetochlor	5.93	Spike	P	0 - 30
2209037	Alachlor	3.55	Spike	P	0 - 30
2209037	Ametryn	14.9	Spike	P	0 - 30
2209037	Atrazine	41.3	Spike	F	0 - 30
2209037	Atrazine Desethyl	13.7	Spike	P	0 - 30
2209037	Azinphos Methyl	75.3	Spike	F	0 - 30
2209037	Azoxystrobin	1.78	Spike	P	0 - 30
2209037	Bromacil	12.4	Spike	P	0 - 30
2209037	Butylate	5.94	Spike	P	0 - 30
2209037	Carbophenothion	24.6	Spike	P	0 - 30
2209037	Carfentrazone Ethyl	5.40	Spike	P	0 - 30
2209037	Chlorpyrifos Ethyl	26.1	Spike	P	0 - 30
2209037	Chlorpyrifos Methyl	21.3	Spike	P	0 - 30
2209037	Cyanazine	13.0	Spike	P	0 - 30
2209037	Demeton	11.9	Spike	P	0 - 30
2209037	Diazinon	16.7	Spike	P	0 - 30
2209037	Difenoconazole	11.5	Spike	P	0 - 30
2209037	Dimethenamid	1.08	Spike	P	0 - 30
2209037	Disulfoton	21.5	Spike	P	0 - 30
2209037	Dithiopyr	10.1	Spike	P	0 - 30
2209037	EPTC	0.831	Spike	P	0 - 30
2209037	Ethion	47.2	Spike	F	0 - 30
2209037	Ethoprop	1.43	Spike	P	0 - 30
2209037	Fenamiphos	42.8	Spike	F	0 - 30
2209037	Fenbuconazole	7.47	Spike	P	0 - 30
2209037	Fipronil	17.3	Spike	P	0 - 30
2209037	Fipronil Desulfinyl	3.20	Spike	P	0 - 30
2209037	Fipronil Sulfide	23.9	Spike	P	0 - 30
2209037	Fipronil Sulfone	25.9	Spike	P	0 - 30
2209037	Fluazifop-P-butyl	9.92	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P390440

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2209037	Fludioxonil	4.42	Spike	P	0 - 30
2209037	Flumioxazin	0.857	Spike	P	0 - 30
2209037	Flutolanil	25.3	Spike	P	0 - 30
2209037	Fluxapyroxad	20.8	Spike	P	0 - 30
2209037	Fonofos	8.85	Spike	P	0 - 30
2209037	Hexazinone	6.94	Spike	P	0 - 30
2209037	Imazalil	23.0	Spike	P	0 - 30
2209037	Iprodione	21.0	Spike	P	0 - 30
2209037	Malathion	22.5	Spike	P	0 - 30
2209037	Metalaxyl	2.67	Spike	P	0 - 30
2209037	Metolachlor	0.250	Spike	P	0 - 30
2209037	Metribuzin	9.45	Spike	P	0 - 30
2209037	Mevinphos	3.12	Spike	P	0 - 30
2209037	Molinate	6.15	Spike	P	0 - 30
2209037	Myclobutanil	18.1	Spike	P	0 - 30
2209037	Naled	12.9	Spike	P	0 - 30
2209037	Norflurazon	14.1	Spike	P	0 - 30
2209037	Oxadiazon	22.7	Spike	P	0 - 30
2209037	Oxyfluorfen	8.93	Spike	P	0 - 30
2209037	Parathion Ethyl	6.31	Spike	P	0 - 30
2209037	Parathion Methyl	0.104	Spike	P	0 - 30
2209037	Pendimethalin	5.13	Spike	P	0 - 30
2209037	Phorate	12.7	Spike	P	0 - 30
2209037	Prodiamine	1.07	Spike	P	0 - 30
2209037	Prometon	4.59	Spike	P	0 - 30
2209037	Prometryn	4.97	Spike	P	0 - 30
2209037	Pronamide	21.1	Spike	P	0 - 30
2209037	Propiconazole	18.3	Spike	P	0 - 30
2209037	Pyriproxyfen	81.7	Spike	F	0 - 30
2209037	Simazine	0.133	Spike	P	0 - 30
2209037	Sulfentrazone	15.9	Spike	P	0 - 30
2209037	Tebuconazole	51.7	Spike	F	0 - 30
2209037	Terbufos	6.34	Spike	P	0 - 30
2209037	Terbutylazine	9.13	Spike	P	0 - 30
LFB	Acetochlor	0.868	LCS	P	0 - 30
LFB	Alachlor	4.84	LCS	P	0 - 30
LFB	Ametryn	8.90	LCS	P	0 - 30
LFB	Atrazine	4.90	LCS	P	0 - 30
LFB	Atrazine Desethyl	2.48	LCS	P	0 - 30
LFB	Azinphos Methyl	0.533	LCS	P	0 - 30
LFB	Azoxystrobin	3.96	LCS	P	0 - 30
LFB	Bromacil	1.88	LCS	P	0 - 30
LFB	Butylate	10.1	LCS	P	0 - 30
LFB	Carbophenothion	12.0	LCS	P	0 - 30
LFB	Carfentrazone Ethyl	1.32	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	12.7	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	4.18	LCS	P	0 - 30
LFB	Cyanazine	10.1	LCS	P	0 - 30
LFB	Demeton	8.23	LCS	P	0 - 30
LFB	Diazinon	6.03	LCS	P	0 - 30
LFB	Difenoconazole	6.47	LCS	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P390440

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Dimethenamid	9.13	LCS	P	0 - 30
LFB	Disulfoton	14.9	LCS	P	0 - 30
LFB	Dithiopyr	11.4	LCS	P	0 - 30
LFB	EPTC	6.88	LCS	P	0 - 30
LFB	Ethion	3.54	LCS	P	0 - 30
LFB	Ethoprop	5.74	LCS	P	0 - 30
LFB	Fenamiphos	4.33	LCS	P	0 - 30
LFB	Fenbuconazole	6.86	LCS	P	0 - 30
LFB	Fipronil	4.46	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	0.682	LCS	P	0 - 30
LFB	Fipronil Sulfide	2.92	LCS	P	0 - 30
LFB	Fipronil Sulfone	0.241	LCS	P	0 - 30
LFB	Fluazifop-P-butyl	7.86	LCS	P	0 - 30
LFB	Fludioxonil	4.12	LCS	P	0 - 30
LFB	Flumioxazin	11.2	LCS	P	0 - 30
LFB	Flutolanil	5.06	LCS	P	0 - 30
LFB	Fluxapyroxad	6.04	LCS	P	0 - 30
LFB	Fonofos	7.06	LCS	P	0 - 30
LFB	Hexazinone	2.88	LCS	P	0 - 30
LFB	Imazalil	0.309	LCS	P	0 - 30
LFB	Iprodione	1.09	LCS	P	0 - 30
LFB	Malathion	1.80	LCS	P	0 - 30
LFB	Metaxyl	0.818	LCS	P	0 - 30
LFB	Metolachlor	2.15	LCS	P	0 - 30
LFB	Metribuzin	11.0	LCS	P	0 - 30
LFB	Mevinphos	5.80	LCS	P	0 - 30
LFB	Molinate	7.49	LCS	P	0 - 30
LFB	Myclobutanil	9.36	LCS	P	0 - 30
LFB	Naled	2.73	LCS	P	0 - 30
LFB	Norflurazon	8.62	LCS	P	0 - 30
LFB	Oxadiazon	6.62	LCS	P	0 - 30
LFB	Oxyfluorfen	8.19	LCS	P	0 - 30
LFB	Parathion Ethyl	1.32	LCS	P	0 - 30
LFB	Parathion Methyl	4.47	LCS	P	0 - 30
LFB	Pendimethalin	18.5	LCS	P	0 - 30
LFB	Phorate	13.9	LCS	P	0 - 30
LFB	Prodiamine	21.0	LCS	P	0 - 30
LFB	Prometon	1.05	LCS	P	0 - 30
LFB	Prometryn	4.78	LCS	P	0 - 30
LFB	Pronamide	0.306	LCS	P	0 - 30
LFB	Propiconazole	2.67	LCS	P	0 - 30
LFB	Pyriproxyfen	3.03	LCS	P	0 - 30
LFB	Simazine	5.26	LCS	P	0 - 30
LFB	Sulfentrazone	0.566	LCS	P	0 - 30
LFB	Tebuconazole	17.4	LCS	P	0 - 30
LFB	Terbufos	15.0	LCS	P	0 - 30
LFB	Terbuthylazine	2.47	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P390102

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2207871	Bentazon	0.622	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P390314

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2208625	2,4-D	17.1	Spike	P	0 - 30
2208625	Acetaminophen	0.547	Spike	P	0 - 30
2208625	Acetamiprid	10.5	Spike	P	0 - 30
2208625	Afidopyropen	35.3	Spike	F	0 - 30
2208625	Benzovindiflupyr	15.3	Spike	P	0 - 30
2208625	Carbamazepine	7.32	Spike	P	0 - 30
2208625	Clothianidin	2.24	Spike	P	0 - 30
2208625	Dinotefuran	0.555	Spike	P	0 - 30
2208625	Diuron	3.00	Spike	P	0 - 30
2208625	Fenuron	3.38	Spike	P	0 - 30
2208625	Fluridone	4.94	Spike	P	0 - 30
2208625	Hydrocodone	14.9	Spike	P	0 - 30
2208625	Ibuprofen	39.3	Spike	F	0 - 30
2208625	Imazapyr	9.94	Spike	P	0 - 30
2208625	Imidacloprid	4.25	Spike	P	0 - 30
2208625	Linuron	0.121	Spike	P	0 - 30
2208625	Mandestrobin	5.03	Spike	P	0 - 30
2208625	MCPP	10.1	Spike	P	0 - 30
2208625	Naproxen	44.5	Spike	F	0 - 30
2208625	Primidone	6.46	Spike	P	0 - 30
2208625	Pyraclostrobin	2.70	Spike	P	0 - 30
2208625	Thiamethoxam	3.29	Spike	P	0 - 30
2208625	Tolfenpyrad	14.3	Spike	P	0 - 30
2208625	Triclopyr	3.89	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P390403

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2208941	Acesulfame K	3.92	Spike	P	0 - 30
2208941	AMPA	2.63	Spike	P	0 - 30
2208941	Endothall	1.34	Spike	P	0 - 30
2208941	Glufosinate	5.78	Spike	P	0 - 30
2208941	Glyphosate	5.45	Spike	P	0 - 30
2208941	Sucralose	1.33	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P390428

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2209030	Color (true)	0.647	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 2320 B-2011
Batch ID: P390499

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2209009	Total Alkalinity	1.79	Sample	P	0 - 8.1

Reference Method: SM 2540 C-2011
Batch ID: P390772

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2209030	TDS	2.97	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P390502

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2209009	Fluoride	0.0	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011
Batch ID: P390551

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2209050	Organic Carbon	1.63	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2209035
Field Sample ID: G5CE0120

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	60.6	P	30 - 160
EPA 8321B	Acetaminophen-d4	66.7	P	30 - 160
EPA 8321B	Carbamazepine-d10	79.6	P	30 - 160
EPA 8321B	Diuron-d6	70.4	P	30 - 160
EPA 8321B	Endothall-d6	136	P	40 - 160
EPA 8321B	Endothall-d6	136	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	94.8	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	94.8	P	40 - 160
EPA 8321B	Ibuprofen-d3	30.6	P	30 - 160
EPA 8321B	Primidone-d5	25.0	F	30 - 160
EPA 8321B	Sucralose-d6	108	P	30 - 160
EPA 8321B	Sucralose-d6	108	P	30 - 160

Lab Sample ID: 2209037
Field Sample ID: G5CE0120

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	108	P	72 - 135
EPA 8270E	Terbufos-d10	101	P	57 - 134

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B-2011

Run ID: A102287

Included Lab Sample IDs: 2209030

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	104	105	P/P	90 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A102288

Included Lab Sample IDs: 2209032

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	101	99.2	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A102290

Included Lab Sample IDs: 2209030

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	97.0	98.5	P/P	95 - 105

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A102298

Included Lab Sample IDs: 2209030

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.0	98.7	P/P	90 - 110
Sulfate	99.5	99.1	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A102299

Included Lab Sample IDs: 2209035

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	96.1	94.2	P/P	60 - 160
Glufosinate	107	109	P/P	60 - 160
Glyphosate	108	111	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A102300

Included Lab Sample IDs: 2209035

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	86.5	78.8	P/P	60 - 160
Endothall	111	106	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A102314

Included Lab Sample IDs: 2209035

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	106	87.5	P/P	50 - 150
Acetaminophen	112	99.7	P/P	60 - 160
Acetamiprid	126	130	P/P	50 - 150
Afidopyropen	109	114	P/P	50 - 150
Bentazon	74.8	104	P/P	50 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A102314

Included Lab Sample IDs: 2209035

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Benzovindiflupyr	119	140	P/P	50 - 160
Carbamazepine	114	120	P/P	60 - 150
Clothianidin	111	108	P/P	60 - 150
Dinotefuran	112	103	P/P	50 - 150
Diuron	125	129	P/P	60 - 160
Fenuron	108	110	P/P	60 - 150
Fluridone	109	104	P/P	60 - 160
Hydrocodone	100	103	P/P	60 - 150
Ibuprofen	70.4	74.8	P/P	50 - 160
Imazapyr	112	102	P/P	50 - 150
Imidacloprid	100	103	P/P	60 - 150
Linuron	112	99.9	P/P	60 - 150
Mandestrobin	117	112	P/P	50 - 150
MCPP	100	92.4	P/P	50 - 150
Naproxen	87.8	102	P/P	50 - 160
Primidone	143	144	P/P	60 - 150
Pyraclostrobin	121	125	P/P	60 - 150
Thiamethoxam	130	125	P/P	50 - 150
Tolfenpyrad	141	143	P/P	60 - 150
Triclopyr	107	80.7	P/P	50 - 150

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A102320

Included Lab Sample IDs: 2209031

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	101	99.6	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A102325

Included Lab Sample IDs: 2209030

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.0	103	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A102325

Included Lab Sample IDs: 2209030

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

Reference Method: SM 5310 B-2011

Run ID: A102346

Included Lab Sample IDs: 2209031

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A102349

Included Lab Sample IDs: 2209031

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A102357

Included Lab Sample IDs: 2209036

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Iron	101	104	P/P	90 - 110
Manganese	102	102	P/P	90 - 110
Zinc	101	98.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A102366

Included Lab Sample IDs: 2209031

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	100	95.7	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A102377

Included Lab Sample IDs: 2209036

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	98.9	99.0	P/P	90 - 110
Antimony	96.4	96.3	P/P	90 - 110
Arsenic	98.9	97.5	P/P	90 - 110
Beryllium	105	91.2	P/P	90 - 110
Cadmium	99.1	98.6	P/P	90 - 110
Chromium	97.0	96.4	P/P	90 - 110
Copper	96.8	95.7	P/P	90 - 110
Lead	98.2	98.8	P/P	90 - 110
Nickel	97.7	97.2	P/P	90 - 110
Selenium	98.0	97.5	P/P	90 - 110
Silver	99.4	98.8	P/P	90 - 110
Thallium	99.1	100	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A102387

Included Lab Sample IDs: 2209035

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	102	97.9	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A102393

Included Lab Sample IDs: 2209031

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A102467
Included Lab Sample IDs: 2209037

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	102		P	80 - 120
Alachlor	102		P	80 - 120
Ametryn	102		P	80 - 120
Atrazine	97.1		P	80 - 120
Atrazine Desethyl	94.9		P	80 - 120
Azinphos Methyl	89.4		P	80 - 120
Azoxystrobin	97.7		P	80 - 120
Bromacil	97.4		P	80 - 120
Butylate	95.4		P	80 - 120
Carbophenothion	98.2		P	80 - 120
Carfentrazone Ethyl	101		P	80 - 120
Chlorpyrifos Ethyl	96.1		P	80 - 120
Chlorpyrifos Methyl	101		P	80 - 120
Cyanazine	91.5		P	80 - 120
Demeton	91.3		P	80 - 120
Diazinon	98.6		P	80 - 120
Difenoconazole	98.4		P	80 - 120
Dimethenamid	102		P	80 - 120
Disulfoton	90.9		P	80 - 120
Dithiopyr	103		P	80 - 120
EPTC	93.5		P	80 - 120
Ethion	96.0		P	80 - 120
Ethoprop	99.1		P	80 - 120
Fenamiphos	96.2		P	80 - 120
Fenbuconazole	96.2		P	80 - 120
Fipronil	98.8		P	80 - 120
Fipronil Desulfinyl	101		P	80 - 120
Fipronil Sulfide	94.1		P	80 - 120
Fipronil Sulfone	91.3		P	80 - 120
Fluazifop-P-butyl	104		P	80 - 120
Fludioxonil	98.0		P	80 - 120
Flumioxazin	97.2		P	80 - 120
Flutolanil	98.5		P	80 - 120
Fluxapyroxad	96.3		P	80 - 120
Fonofos	96.8		P	80 - 120
Hexazinone	97.8		P	80 - 120
Imazalil	109		P	80 - 120
Iprodione	101		P	80 - 120
Malathion	98.4		P	80 - 120
Metaxyl	102		P	80 - 120
Metolachlor	100		P	80 - 120
Metribuzin	102		P	80 - 120
Mevinphos	93.0		P	80 - 120
Molinate	93.3		P	80 - 120
Myclobutanil	99.1		P	80 - 120
Naled	101		P	80 - 120
Norflurazon	97.2		P	80 - 120
Oxadiazon	104		P	80 - 120
Oxyfluorfen	104		P	80 - 120
Parathion Ethyl	95.6		P	80 - 120
Parathion Methyl	93.5		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A102467

Included Lab Sample IDs: 2209037

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pendimethalin	106		P	80 - 120
Phorate	93.2		P	80 - 120
Prodiamine	112		P	80 - 120
Prometon	97.1		P	80 - 120
Prometryn	101		P	80 - 120
Pronamide	95.1		P	80 - 120
Propiconazole	108		P	80 - 120
Pyriproxyfen	101		P	80 - 120
Simazine	99.1		P	80 - 120
Sulfentrazone	95.3		P	80 - 120
Tebuconazole	102		P	80 - 120
Terbufos	98.1		P	80 - 120
Terbutylazine	99.7		P	80 - 120

* 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							3.47
EPA 200.7 Rev. 4.4	Iron	107		104	107	104		2.35
	Manganese	105		101	102	102		0.0016
	Zinc	102		98.5	98.0	98.5		0.505
EPA 200.8 Rev. 5.4	Aluminum	96.4		100	95.5	100		4.52
	Antimony	100		99.9	100	99.9		0.120
	Arsenic	101		101	100	98.6		1.36
	Beryllium	94.0		96.2	104	93.2		7.85
	Cadmium	98.6		99.1	99.7	98.5		0.532
	Chromium	97.7		98.9	96.7	101		2.26
	Copper	98.6		101	107	100		5.09
	Lead	98.1		98.9	97.6	99.3		1.27
	Nickel	98.1		101	99.0	102		2.30
	Selenium	101		101	101	94.3		0.0746
	Silver	103		101	101	101		0.326
	Thallium	99.0		101	99.5	101		1.27
EPA 300.0 Rev. 2.1	Chloride	99.4		98.5	101			0.402
	Sulfate	98.6		97.4	100			
EPA 350.1 Rev. 2.0	Ammonia-N	99.4		99.7	99.5			0.221
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.5		96.0	93.0			2.62
EPA 353.2 Rev. 2.0	NO2NO3-N	100		98.5				0.386
EPA 365.1 Rev. 2.0	Total-P	105		104	104			0.724
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.2		100	102			1.49
EPA 8270E	Acetochlor	97.2	98.0	100	106	0.868		5.93
	Alachlor	90.4	86.2	98.4	94.9	4.84		3.55
	Ametryn	95.4	104	158	136	8.90		14.9
	Atrazine	94.8	99.6			4.90		41.3
	Atrazine Desethyl	92.9	95.2			2.48		13.7
	Azinphos Methyl	112	112	101	223	0.533		75.3
	Azoxystrobin	166	173	156	152	3.96		1.78
	Bromacil	93.7	91.9	83.8	94.9	1.88		12.4
	Butylate	70.6	78.2	69.9	65.8	10.1		5.94
	Carbophenothion	84.0	94.7	125	97.9	12.0		24.6
	Carfentrazone Ethyl	93.1	94.3	107	113	1.32		5.40
	Chlorpyrifos Ethyl	83.2	94.5	89.5	116	12.7		26.1
	Chlorpyrifos Methyl	91.4	95.3	96.0	119	4.18		21.3
	Cyanazine	146	161	134	153	10.1		13.0
	Demeton	84.4	91.7	89.3	101	8.23		11.9
	Diazinon	91.1	96.8	106	89.7	6.03		16.7
	Difenoconazole	116	124	113	100	6.47		11.5
	Dimethenamid	93.1	85.0	95.2	96.2	9.13		1.08
	Disulfoton	79.5	92.2	89.2	111	14.9		21.5
	Dithiopyr	84.9	95.2	101	90.3	11.4		10.1
	EPTC	68.1	73.0	67.3	66.7	6.88		0.831
	Ethion	81.4	78.6	82.6	134	3.54		47.2
	Ethoprop	88.5	93.8	93.9	95.3	5.74		1.43
	Fenamiphos	93.7	89.7	88.9	137	4.33		42.8
	Fenbuconazole	94.3	101	118	110	6.86		7.47
	Fipronil	97.2	93.0	107	86.7	4.46		17.3
	Fipronil Desulfinyl	88.7	88.0	102	105	0.682		3.20
	Fipronil Sulfide	87.7	90.3	91.4	141	2.92		23.9
	Fipronil Sulfone	96.2	95.9			0.241		25.9
	Fluazifop-P-butyl	91.5	99.0	108	98.0	7.86		9.92
	Fludioxonil	92.4	88.6	99.0	104	4.12		4.42

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Flumioxazin	159	177	230	228	11.2	0.857
	Flutolanil	86.2	82.0	97.4	126	5.06	25.3
	Fluxapyroxad	92.9	87.4	99.4	123	6.04	20.8
	Fonofos	84.9	91.1	90.3	98.7	7.06	8.85
	Hexazinone	90.8	93.5	101	108	2.88	6.94
	Imazalil	94.2	94.5	85.1	67.5	0.309	23.0
	Iprodione	82.7	83.6	94.5	117	1.09	21.0
	Malathion	106	104	109	137	1.80	22.5
	Metalaxyl	97.6	96.8	102	99.3	0.818	2.67
	Metolachlor	95.9	98.0	105	105	2.15	0.250
	Metribuzin	103	115	109	98.9	11.0	9.45
	Mevinphos	90.6	96.0	84.6	87.2	5.80	3.12
	Molinate	75.6	81.5	79.8	75.0	7.49	6.15
	Myclobutanil	97.7	88.9	101	121	9.36	18.1
	Naled	61.8	63.5	58.5	66.6	2.73	12.9
	Norflurazon	92.7	85.0	103	118	8.62	14.1
	Oxadiazon	81.9	87.5	97.6	123	6.62	22.7
	Oxyfluorfen	101	110	137	125	8.19	8.93
	Parathion Ethyl	89.4	90.6	93.4	99.5	1.32	6.31
	Parathion Methyl	93.9	98.2	95.8	95.7	4.47	0.104
	Pendimethalin	76.6	92.2	106	101	18.5	5.13
	Phorate	71.9	82.6	97.8	111	13.9	12.7
	Prodiamine	68.8	84.9	156	158	21.0	1.07
	Prometon	89.8	88.9	92.2	88.1	1.05	4.59
	Prometryn	99.8	95.1	103	98.3	4.78	4.97
	Pronamide	99.0	98.7	108	87.4	0.306	21.1
	Propiconazole	92.6	90.1	100	124	2.67	18.3
	Pyriproxyfen	78.7	81.1	85.9	204	3.03	81.7
	Simazine	107	102			5.26	0.133
	Sulfentrazone	47.0	46.8			0.566	15.9
	Tebuconazole	69.5	58.4	75.2	131	17.4	51.7
	Terbufos	80.8	93.9	96.4	103	15.0	6.34
	Terbutylazine	97.3	99.8	105	89.9	2.47	9.13
EPA 8321B	2,4-D	69.8		53.4	63.4		17.1
	Acesulfame K	82.4		68.2	70.9		3.92
	Acetaminophen	73.4		108	108		0.547
	Acetamiprid	84.3		82.1	73.8		10.5
	Afidopyropen	40.1		56.7	39.7		35.3
	AMPA	104		63.2	59.0		2.63
	Bentazon	41.9		32.2	32.0		0.622
	Benzovindiflupyr	90.7		99.4	85.3		15.3
	Carbamazepine	71.7		82.2	75.9		7.32
	Clothianidin	89.2		78.6	80.3		2.24
	Dinotefuran	84.1		102	103		0.555
	Diuron	77.2		77.5	80.0		3.00
	Endothall	112		129	131		1.34
	Fenuron	92.3		94.1	97.3		3.38
	Fluridone	74.6		79.6	75.2		4.94
	Glufosinate	107		88.5	93.7		5.78
	Glyphosate	118		80.0	89.6		5.45
	Hydrocodone	99.9		92.0	107		14.9
	Ibuprofen	44.0		40.7	60.7		39.3
	Imazapyr	85.2		68.6	76.6		9.94
	Imidacloprid	70.9		81.0	77.2		4.25

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8321B	Linuron	69.1	74.2	74.1		0.121
	Mandestrobin	83.2	101	96.2		5.03
	MCCP	68.2	61.3	67.9		10.1
	Naproxen	45.1	91.1	58.0		44.5
	Primidone	104	67.0	71.4		6.46
	Pyraclostrobin	72.3	79.9	77.8		2.70
	Sucralose	107	111	113		1.33
	Thiamethoxam	97.0	106	102		3.29
	Tolfenpyrad	46.6	53.8	62.0		14.3
	Triclopyr	54.0	49.4	51.4		3.89
SM 2120 B-2011	Color (true)	104			0.647	
SM 2320 B-2011	Total Alkalinity	99.5			1.79	
SM 2540 C-2011	TDS				2.97	
SM 4500 F-C-2011	Fluoride	98.9	98.4	98.4		0.0
SM 5310 B-2011	Organic Carbon	101	104	106		1.63

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2209030
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2209036
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2209036
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2209030
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2209030
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2209031
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2209031
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2209031
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2209031
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2209032
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2209037
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2209035
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2209035
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2209030
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2209030
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2209036
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2209030
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2209030
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2209030
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2209031

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	11/24/2020			11/24/2020 17:06	Yen Ta	2209030
EPA 200.7 Rev. 4.4	11/24/2020	11/30/2020 13:55	Elliott D. Healy	12/01/2020 16:00	Betina Topolski	2209036
EPA 200.8 Rev. 5.4	11/24/2020	11/30/2020 13:55	Elliott D. Healy	12/02/2020 17:22	Alexander Thompson	2209036
EPA 300.0 Rev. 2.1	11/24/2020			11/25/2020 16:50	Lipi Saha	2209030
EPA 350.1 Rev. 2.0	11/24/2020			11/28/2020 17:38	Ping Hua	2209031
EPA 351.2 Rev. 2.0	11/24/2020	12/01/2020 12:10	David Boose	12/02/2020 12:23	Elliott Rodriguez	2209031
EPA 353.2 Rev. 2.0	11/24/2020			12/01/2020 10:17	Beverly Y. Sanders	2209031
EPA 365.1 Rev. 2.0	11/24/2020	12/02/2020 16:51	Madeline Gruver	12/03/2020 11:33	Benjamin T. Nordmann	2209031
EPA 365.1 Rev. 2.0 dissolved	11/24/2020			11/24/2020 16:21	Blanca Fach	2209032
EPA 8270E	11/24/2020	11/30/2020 08:00	Fe-Val Siddell	12/03/2020 18:10	Vandana T. Nagar	2209037
	11/24/2020	11/30/2020 08:00	Fe-Val Siddell	12/03/2020 19:24	Vandana T. Nagar	2209037
	11/24/2020	11/30/2020 08:00	Fe-Val Siddell	12/03/2020 20:39	Vandana T. Nagar	2209037
EPA 8321B	11/24/2020	11/24/2020 10:45	Rebecca Ware	11/24/2020 12:13	Rebecca Ware	2209035
	11/24/2020	11/24/2020 10:45	Rebecca Ware	11/24/2020 16:56	Rebecca Ware	2209035
	11/24/2020	11/24/2020 10:45	Rebecca Ware	12/01/2020 20:43	Rebecca Ware	2209035
	11/24/2020	11/24/2020 14:00	Hoor Shaik	11/25/2020 23:58	Mohammad Ghaffari	2209035
	11/24/2020	11/24/2020 14:00	Hoor Shaik	11/26/2020 12:05	Mohammad Ghaffari	2209035
SM 2120 B-2011	11/24/2020			11/24/2020 16:14	Benjamin T. Nordmann	2209030
SM 2320 B-2011	11/24/2020			11/25/2020 20:28	Dale L. Simmons	2209030
SM 2340B	11/24/2020			12/01/2020 16:00	Betina Topolski	2209036
SM 2540 C-2011	11/24/2020			11/25/2020 11:25	Yijie Li	2209030
SM 2540 D-2011	11/24/2020			11/25/2020 11:25	Yijie Li	2209030
SM 4500 F-C-2011	11/24/2020			11/25/2020 20:28	Dale L. Simmons	2209030
SM 5310 B-2011	11/24/2020			11/30/2020 19:45	Madeline Gruver	2209031