

Chemical Analysis Report

NE-DIST-2021-02-24-01

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

Event Description: **Pellicer Creek Boat 2021**
Request ID: **RQ-2021-01-25-07**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
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8800 Baymeadows Way West
Suite 100
Jacksonville, FL 32256
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Certified by: Liang Lin, Environmental Administrator

Date Certified: 17-MAR-2021 15:12

A handwritten signature in black ink, appearing to read "Liang Lin", is shown on a light-colored background.

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: Pellicer CR at Faver Dykes Bt Rmp

Collection Date/Time: 02/23/2021 12:45

Field ID: 27010965

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2226988	EPA 180.1 Rev. 2.0	Turbidity	4.5		NTU	P394183	
	EPA 300.0 Rev. 2.1	Bromide	0.40		mg Br/L	P394335	
	SM 2320 B-2011	Total Alkalinity	23		mg CaCO3/L	P394513	
	SM 2540 D-2011	TSS	3	IA	mg/L	P394532	
	SM 4500 F-C-2011	Fluoride	0.053	I	mg F/L	P394516	
2226989	EPA 350.1 Rev. 2.0	Ammonia-N	0.011		mg N/L	P394303	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P394208	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.009	I	mg N/L	P394197	
	EPA 365.1 Rev. 2.0	Total-P	0.054		mg P/L	P394245	
	SM 5310 B-2011	Organic Carbon	37		mg C/L	P394725	
2227007	EPA 8321B	Aldicarb	0.020	U	ug/L	P394079	
		Aldicarb Sulfone	0.0020	U	ug/L	P394079	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P394079	
		Carbaryl	0.0020	U	ug/L	P394079	
		Carbofuran	0.0020	U	ug/L	P394079	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P394079	
		Methiocarb	0.0020	U	ug/L	P394079	
		Methomyl	0.0020	U	ug/L	P394079	
		Oxamyl	0.0020	U	ug/L	P394079	
		Propoxur	0.0020	U	ug/L	P394079	
2227008		2,4-D	0.0020	U	ug/L	P394079	
		Acesulfame K	0.10	U	ug/L	P394168	
		2,4,5-T	0.0040	U	ug/L	P394079	
		AMPA	0.10	U	ug/L	P394168	
		Sucralose	0.98		ug/L	P394168	
		Acetaminophen**	0.0080	U	ug/L	P394079	
		Acetamiprid**	0.0020	U	ug/L	P394079	
		Endothall	0.25	U	ug/L	P394168	
		Glufosinate	0.10	U	ug/L	P394168	
		Glyphosate	0.28	I J	ug/L	P394168	LCS
		Afidopyropen**	0.0020	U	ug/L	P394079	
		Bentazon	0.0056		ug/L	P394079	
		Benzovindiflupyr**	0.0020	U	ug/L	P394079	
		Carbamazepine**	9.0E-04	I	ug/L	P394079	
		Clothianidin**	0.0020	U	ug/L	P394079	
		Dinotefuran**	0.0020	U	ug/L	P394079	
		Diuron	0.0020	U	ug/L	P394079	
		Fenuron	0.016	U	ug/L	P394079	
		Fluridone**	8.0E-04	U	ug/L	P394079	
		Imazapyr**	0.12		ug/L	P394079	
		Hydrocodone**	0.0020	U	ug/L	P394079	
		Ibuprofen**	0.020	U	ug/L	P394079	
		Imidacloprid	0.0059	I	ug/L	P394079	
		Linuron	0.0040	U	ug/L	P394079	

Field ID: 27010965

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2227008	EPA 8321B	Mandestrobin**	0.0020	U	ug/L	P394079	
		MCCP	0.0020	U	ug/L	P394079	
		Naproxen**	0.0080	U	ug/L	P394079	
		Primidone**	0.0040	I	ug/L	P394079	
		Pyraclostrobin**	0.0020	U	ug/L	P394079	
		Thiamethoxam**	0.0020	U	ug/L	P394079	
		Tolfenpyrad**	0.0020	U	ug/L	P394079	
		Triclopyr**	0.0040	U	ug/L	P394079	
2227014	EPA 8270E	Aldrin	0.78	U	ng/L	P394215	
		Dieldrin	0.42	U	ng/L	P394215	
		Alpha-BHC	2.1	U	ng/L	P394215	
		Kepone**	5.8	U	ng/L	P394215	
		Alpha-Chlordane	1.0	U	ng/L	P394215	
		Beta-BHC	8.4	U	ng/L	P394215	
		Beta-Cyfluthrin**	16	U	ng/L	P394215	
		Bifenthrin**	4.2	UJ	ng/L	P394215	CCV, MS
		Delta-BHC	8.4	U	ng/L	P394215	
		Gamma-BHC	8.4	U	ng/L	P394215	
		Chlorothalonil	2.1	U	ng/L	P394215	
		Cis-Nonachlor**	1.0	U	ng/L	P394215	
		Cypermethrin	21	U	ng/L	P394215	
		Dacthal**	1.0	U	ng/L	P394215	
		DDD-p,p'	5.2	U	ng/L	P394215	
		DDE-p,p'	5.2	U	ng/L	P394215	
		DDT-p,p'	6.3	U	ng/L	P394215	
		Deltamethrin**	21	U	ng/L	P394215	
		Dicofol	31	U	ng/L	P394215	
		Endosulfan I	4.2	U	ng/L	P394215	
		Endosulfan II	4.2	U	ng/L	P394215	MS
		Endosulfan Sulfate	2.1	U	ng/L	P394215	
		Endrin	2.1	U	ng/L	P394215	
		Endrin Aldehyde	2.1	U	ng/L	P394215	
		Endrin Ketone	2.1	U	ng/L	P394215	
		Ethalfuralin**	3.1	U	ng/L	P394215	
		Gamma-Chlordane	1.0	U	ng/L	P394215	
		Dichlobenil**	2.1	U	ng/L	P394215	
		Esfenvalerate**	21	U	ng/L	P394215	MS
		Fenpropathrin**	10	U	ng/L	P394215	
		Heptachlor	1.6	U	ng/L	P394215	
		Heptachlor Epoxide	2.1	U	ng/L	P394215	
		Hexachlorobenzene	2.1	U	ng/L	P394215	
		Lambda-Cyhalothrin**	16	U	ng/L	P394215	
		Methoxychlor	4.2	U	ng/L	P394215	
		Mirex	2.1	U	ng/L	P394215	
		MGK-264**	3.1	UJ	ng/L	P394215	CCV

Field ID: 27010965

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2227014	EPA 8270E	Permethrin	10	U	ng/L	P394215	
		Phenothrin**	31	U	ng/L	P394215	
		Piperonyl Butoxide**	1.6	UJ	ng/L	P394215	LCS, MS
		Prallethrin**	26	UJ	ng/L	P394215	LCS
		Tau-Fluvalinate**	3.7	U	ng/L	P394215	
		Tetramethrin**	8.4	U	ng/L	P394215	
		Trans-Nonachlor**	1.0	U	ng/L	P394215	
		Triclosan Methyl**	1.0	U	ng/L	P394215	
		Trifluralin	2.6	U	ng/L	P394215	
	EPA 8276	Chlordane	5.2	U	ng/L	P394215	
		Toxaphene	31	U	ng/L	P394215	
		Acetochlor	0.25	U	ng/L	P394214	
2227015	EPA 8270E	Alachlor	0.25	U	ng/L	P394214	
		Ametryn	0.59	U	ng/L	P394214	
		Atrazine	48		ng/L	P394214	
		Atrazine Desethyl	4.0	I	ng/L	P394214	
		Azinphos Methyl	2.0	U	ng/L	P394214	
		Azoxystrobin**	0.50	U	ng/L	P394214	
		Bromacil	0.50	U	ng/L	P394214	
		Butylate	0.40	U	ng/L	P394214	
		Caffeine**	7.8	I	ng/L	P394214	MS
		Carbophenothion	0.50	U	ng/L	P394214	
		Carfentrazone Ethyl**	0.099	U	ng/L	P394214	MS, RPD
		Chlorpyrifos Ethyl	0.25	U	ng/L	P394214	
		Chlorpyrifos Methyl	0.050	U	ng/L	P394214	
		Cyanazine	3.2	U	ng/L	P394214	
		Demeton	1.5	U	ng/L	P394214	
		Diazinon	0.12	U	ng/L	P394214	
		Difenoconazole**	0.59	U	ng/L	P394214	
		Dimethenamid**	0.099	U	ng/L	P394214	
		Disulfoton	0.50	U	ng/L	P394214	
		Dithiopyr**	0.17	U	ng/L	P394214	
		EPTC	1.2	U	ng/L	P394214	
		Ethion	0.15	U	ng/L	P394214	
		Ethoprop	0.099	U	ng/L	P394214	
		Fenamiphos	0.50	U	ng/L	P394214	
		Fenbuconazole**	0.12	U	ng/L	P394214	
		Fipronil	0.25	U	ng/L	P394214	
		Fipronil Desulfinyl**	0.12	U	ng/L	P394214	
		Fipronil Sulfide	0.15	U	ng/L	P394214	
		Fipronil Sulfone	0.20	I	ng/L	P394214	
		Fluazifop-P-butyl**	0.099	U	ng/L	P394214	
		Fludioxonil**	0.12	U	ng/L	P394214	
		Flumioxazin**	1.7	U	ng/L	P394214	
		Flutolanil**	0.099	U	ng/L	P394214	

Field ID: 27010965

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2227015	EPA 8270E	Fluxapyroxad**	0.099	U	ng/L	P394214	RPD
		Fonofos	0.20	U	ng/L	P394214	
		Hexazinone	0.50	U	ng/L	P394214	
		Imazalil**	0.74	U	ng/L	P394214	
		Iprodione**	0.59	U	ng/L	P394214	
		Malathion	0.35	U	ng/L	P394214	
		Metalaxyl	0.74	U	ng/L	P394214	
		Metolachlor	2.3		ng/L	P394214	
		Metribuzin	3.2	U	ng/L	P394214	
		Mevinphos	1.0	U	ng/L	P394214	
		Molinate	0.30	U	ng/L	P394214	
		Myclobutanil**	0.25	U	ng/L	P394214	
		Naled**	1.5	U	ng/L	P394214	
		Norflurazon	0.50	U	ng/L	P394214	
		Oxadiazon	0.30	U	ng/L	P394214	
		Oxyfluorfen**	0.15	U	ng/L	P394214	
		Parathion Ethyl	0.25	U	ng/L	P394214	
		Parathion Methyl	0.55	U	ng/L	P394214	
		Pendimethalin	0.99	U	ng/L	P394214	
		Phorate	0.52	U	ng/L	P394214	
		Prodiamine**	0.17	U	ng/L	P394214	
		Prometon	0.89	U	ng/L	P394214	
		Prometryn	0.20	U	ng/L	P394214	
		Pronamide**	0.15	U	ng/L	P394214	
		Propiconazole**	0.81	I	ng/L	P394214	
		Pyriproxyfen**	0.12	U	ng/L	P394214	
		Simazine	17		ng/L	P394214	
		Sulfentrazone**	0.78	I	ng/L	P394214	
		Tebuconazole**	0.50	U	ng/L	P394214	
		Terbufos	0.099	U	ng/L	P394214	
		Terbuthylazine	0.42	U	ng/L	P394214	
2227016	EPA 200.7 Rev. 4.4	Calcium	16.7		mg/L	P394231	
		Chromium	1.0	U	ug/L	P394231	
		Iron	1.0E+03		ug/L	P394231	
		Magnesium	8.41		mg/L	P394231	
		Manganese	7.7		ug/L	P394231	
		Zinc	5.0	U	ug/L	P394231	
	EPA 200.8 Rev. 5.4	Aluminum	520		ug/L	P394231	
		Antimony	0.20	U	ug/L	P394231	
		Arsenic	0.47	I	ug/L	P394231	
		Beryllium	0.043	I	ug/L	P394231	
		Cadmium	0.080	U	ug/L	P394231	
		Copper	1.6	U	ug/L	P394231	
		Lead	0.80	U	ug/L	P394231	
		Nickel	2.0	U	ug/L	P394231	

Field ID: 27010965

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2227016	EPA 200.8 Rev. 5.4	Selenium	0.80	U	ug/L	P394231	
		Silver	0.040	U	ug/L	P394231	
		Thallium	0.40	U	ug/L	P394231	
2227056	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.030		mg P/L	P394180	

Ref. Method and Comment:

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

SM 4500 F-C-2011: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.

EPA 8321B: Refer to the Lab Analysis Report for an explanation of QC Codes.

EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.

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

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium and magnesium are unavailable because of high analyte concentration in the QC sample.

Sample Location: Pellicer 1.3mi downstream of I95

Collection Date/Time: 02/23/2021 11:40

Field ID: G5NE0593

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2226990	EPA 180.1 Rev. 2.0	Turbidity	3.1		NTU	P394183	
	EPA 300.0 Rev. 2.1	Bromide	0.10		mg Br/L	P394335	
	SM 2320 B-2011	Total Alkalinity	23		mg CaCO3/L	P394513	
	SM 2540 D-2011	TSS	2	I	mg/L	P394532	
	SM 4500 F-C-2011	Fluoride	0.048	I	mg F/L	P394516	
2226991	EPA 350.1 Rev. 2.0	Ammonia-N	0.016		mg N/L	P394329	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.98		mg N/L	P394208	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.007	I	mg N/L	P394197	
	EPA 365.1 Rev. 2.0	Total-P	0.053		mg P/L	P394245	
	SM 5310 B-2011	Organic Carbon	36		mg C/L	P394725	
2226992	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.026		mg P/L	P394180	

Ref. Method and Comment:

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

SM 4500 F-C-2011: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P394183

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P394231

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Chromium	1.0	U	ug/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Manganese	1.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P394231

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
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: P394335

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P394303

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P394329

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P394208

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: P394197

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P394245

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P394180

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

Reference Method: EPA 8270E
Batch ID: P394214

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
Caffeine	7.5	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	0.18	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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P394214

Component	Result	Code	Units
Fluxapyroxad	0.10	U	ng/L
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	0.35	U	ng/L
Metribuzin	3.2	U	ng/L
Mevinphos	1.0	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	0.30	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	0.52	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 8270E

Batch ID: P394215

Component	Result	Code	Units
Aldrin	0.75	U	ng/L
Alpha-BHC	2.0	U	ng/L
Alpha-Chlordane	1.0	U	ng/L
Beta-BHC	8.0	U	ng/L
Beta-Cyfluthrin	15	U	ng/L
Bifenthrin	4.0	U	ng/L
Chlorothalonil	2.0	U	ng/L
Cis-Nonachlor	1.0	U	ng/L
Cypermethrin	20	U	ng/L
Dacthal	1.0	U	ng/L
DDD-p,p'	5.0	U	ng/L
DDE-p,p'	5.0	U	ng/L
DDT-p,p'	6.0	U	ng/L
Delta-BHC	8.0	U	ng/L
Deltamethrin	20	U	ng/L
Dichlobenil	2.0	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P394215

Component	Result	Code	Units
Dicofol	30	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	4.0	U	ng/L
Endosulfan II	4.0	U	ng/L
Endosulfan Sulfate	2.0	U	ng/L
Endrin	2.0	U	ng/L
Endrin Aldehyde	2.0	U	ng/L
Endrin Ketone	2.0	U	ng/L
Esfenvalerate	20	U	ng/L
Ethalfuralin	3.0	U	ng/L
Fenpropathrin	10	U	ng/L
Gamma-BHC	8.0	U	ng/L
Gamma-Chlordane	1.0	U	ng/L
Heptachlor	1.5	U	ng/L
Heptachlor Epoxide	2.0	U	ng/L
Hexachlorobenzene	2.0	U	ng/L
Kepone	5.5	U	ng/L
Lambda-Cyhalothrin	15	U	ng/L
Methoxychlor	4.0	U	ng/L
MGK-264	3.0	U	ng/L
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L
Phenothrin	30	U	ng/L
Piperonyl Butoxide	1.5	U	ng/L
Prallethrin	25	U	ng/L
Tau-Fluvalinate	3.5	U	ng/L
Tetramethrin	8.0	U	ng/L
Trans-Nonachlor	1.0	U	ng/L
Triclosan Methyl	1.0	U	ng/L
Trifluralin	2.5	U	ng/L

Reference Method: EPA 8276

Batch ID: P394215

Component	Result	Code	Units
Chlordane	5.0	U	ng/L
Toxaphene	30	U	ng/L

Reference Method: EPA 8321B

Batch ID: P394079

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
3-Hydroxycarbofuran	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Aldicarb	0.020	U	ug/L
Aldicarb Sulfone	0.0020	U	ug/L
Aldicarb Sulfoxide	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P394079

Component	Result	Code	Units
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Carbaryl	0.0020	U	ug/L
Carbofuran	0.0020	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
Methiocarb	0.0020	U	ug/L
Methomyl	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Oxamyl	0.0020	U	ug/L
Primidone	0.0040	U	ug/L
Propoxur	0.0020	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: P394168

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

Reference Method: SM 2320 B-2011

Batch ID: P394513

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

Reference Method: SM 2540 D-2011

Batch ID: P394532

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 4500 F-C-2011
Batch ID: P394516

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P394725

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: P394231

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	108		P	85 - 115
Chromium	96.9		P	85 - 115
Iron	103		P	85 - 115
Magnesium	102		P	85 - 115
Manganese	102		P	85 - 115
Zinc	106		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P394231

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	91.6		P	85 - 115
Antimony	103		P	85 - 115
Arsenic	96.7		P	85 - 115
Beryllium	86.7		P	85 - 115
Cadmium	98.6		P	85 - 115
Copper	92.9		P	85 - 115
Lead	104		P	85 - 115
Nickel	92.2		P	85 - 115
Selenium	95.9		P	85 - 115
Silver	101		P	85 - 115
Thallium	108		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P394335

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Bromide	96.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P394303

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	97.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P394329

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P394208

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P394197

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	103		P	90 - 110

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P394245

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: P394180

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

Reference Method: EPA 8270E

Batch ID: P394214

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	76.6	78.0	P/P	70 - 121
Alachlor	80.2	79.9	P/P	70 - 119
Ametryn	70.7	82.5	P/P	61 - 135
Atrazine	85.9	83.4	P/P	76 - 123
Atrazine Desethyl	74.9	67.4	P/P	35 - 140
Azinphos Methyl	105	105	P/P	57 - 163
Azoxystrobin	110	117	P/P	43 - 231
Bromacil	59.4	66.1	P/P	42 - 123
Butylate	52.6	54.6	P/P	34 - 92.0
Caffeine	112	107	P/P	70 - 130
Carbophenothion	78.9	78.9	P/P	61 - 121
Carfentrazone Ethyl	72.3	79.3	P/P	62 - 139
Chlorpyrifos Ethyl	72.0	69.3	P/P	67 - 121
Chlorpyrifos Methyl	75.0	76.9	P/P	67 - 120
Cyanazine	84.2	88.7	P/P	20 - 226
Demeton	74.3	71.0	P/P	35 - 125
Diazinon	75.0	76.7	P/P	70 - 122
Difenoconazole	113	115	P/P	56 - 186
Dimethenamid	78.0	79.6	P/P	67 - 119
Disulfoton	73.0	72.2	P/P	47 - 120
Dithiopyr	71.1	72.3	P/P	67 - 118
EPTC	49.9	50.7	P/P	33 - 90.0
Ethion	61.3	64.7	P/P	40 - 133
Ethoprop	74.3	74.6	P/P	61 - 121
Fenamiphos	73.1	78.9	P/P	31 - 139
Fenbuconazole	77.9	81.4	P/P	66 - 141
Fipronil	74.7	78.4	P/P	62 - 129
Fipronil Desulfinyl	71.9	73.8	P/P	59 - 126
Fipronil Sulfide	68.3	70.8	P/P	63 - 117
Fipronil Sulfone	68.6	70.1	P/P	57 - 117
Fluazifop-P-butyl	77.9	79.5	P/P	63 - 124
Fludioxonil	67.0	69.7	P/P	63 - 123
Flumioxazin	122	120	P/P	34 - 245
Flutolanil	71.0	73.3	P/P	56 - 131
Fluxapyroxad	70.9	73.8	P/P	57 - 117
Fonofos	73.6	77.7	P/P	61 - 116
Hexazinone	75.0	74.5	P/P	55 - 138
Imazalil	84.6	86.8	P/P	33 - 143
Iprodione	71.3	72.5	P/P	59 - 118
Malathion	81.6	83.8	P/P	62 - 138

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
 Batch ID: P394214

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Metalaxyl	75.1	79.2	P/P	24 - 147
Metolachlor	73.7	76.2	P/P	68 - 118
Metribuzin	79.2	86.7	P/P	20 - 239
Mevinphos	77.5	74.7	P/P	46 - 124
Molinate	63.1	63.0	P/P	46 - 100
Myclobutanil	71.2	72.4	P/P	32 - 149
Naled	56.6	56.1	P/P	32 - 95.0
Norflurazon	72.5	69.6	P/P	57 - 127
Oxadiazon	72.4	74.2	P/P	63 - 118
Oxyfluorfen	87.0	88.6	P/P	69 - 137
Parathion Ethyl	80.7	78.5	P/P	70 - 113
Parathion Methyl	80.6	87.4	P/P	71 - 130
Pendimethalin	77.4	79.9	P/P	55 - 118
Phorate	92.4	85.3	P/P	46 - 125
Prodiamine	44.9	44.0	P/P	20 - 141
Prometon	75.0	73.8	P/P	54 - 122
Prometryn	73.7	80.0	P/P	66 - 124
Pronamide	84.9	87.7	P/P	79 - 122
Propiconazole	70.6	70.9	P/P	61 - 126
Pyriproxyfen	74.4	73.3	P/P	52 - 131
Simazine	79.7	82.2	P/P	75 - 128
Sulfentrazone	72.9	72.2	P/P	20 - 132
Tebuconazole	48.6	51.4	P/P	20 - 116
Terbufos	70.9	74.0	P/P	61 - 117
Terbuthylazine	82.7	81.4	P/P	74 - 116

Reference Method: EPA 8270E
 Batch ID: P394215

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	49.0	52.4	P/P	20 - 110
Alpha-BHC	94.6	89.8	P/P	58 - 130
Alpha-Chlordane	82.2	85.6	P/P	61 - 105
Beta-BHC	90.2	96.3	P/P	53 - 164
Beta-Cyfluthrin	119	114	P/P	40 - 140
Bifenthrin	119	118	P/P	44 - 122
Chlorothalonil	86.5	88.0	P/P	20 - 201
Cis-Nonachlor	83.1	86.3	P/P	60 - 110
Cypermethrin	122	118	P/P	43 - 131
Dacthal	92.0	97.1	P/P	76 - 108
DDD-p,p'	100	105	P/P	68 - 118
DDE-p,p'	93.3	97.8	P/P	56 - 107
DDT-p,p'	86.4	84.3	P/P	55 - 122
Delta-BHC	102	108	P/P	60 - 181
Deltamethrin	105	108	P/P	51 - 139
Dichlobenil	73.8	78.2	P/P	20 - 106
Dicofol	104	103	P/P	56 - 130
Dieldrin	76.4	73.9	P/P	58 - 112
Endosulfan I	93.5	93.8	P/P	68 - 115
Endosulfan II	83.2	83.2	P/P	69 - 133
Endosulfan Sulfate	110	113	P/P	65 - 126
Endrin	106	104	P/P	66 - 118

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P394215

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Endrin Aldehyde	90.9	76.6	P/P	60 - 132
Endrin Ketone	99.2	98.0	P/P	68 - 121
Esfenvalerate	108	115	P/P	42 - 116
Ethalfuralin	87.7	87.5	P/P	50 - 118
Fenpropathrin	130	131	P/P	55 - 132
Gamma-BHC	98.5	101	P/P	65 - 147
Gamma-Chlordane	79.7	83.1	P/P	56 - 103
Heptachlor	73.0	78.2	P/P	47 - 95.0
Heptachlor Epoxide	85.3	89.9	P/P	67 - 107
Hexachlorobenzene	81.0	81.2	P/P	45 - 99.0
Kepone	107	113	P/P	28 - 128
Lambda-Cyhalothrin	117	118	P/P	41 - 135
Methoxychlor	97.7	99.9	P/P	61 - 138
MGK-264	88.4	86.7	P/P	20 - 109
Mirex	84.1	82.2	P/P	36 - 92.0
Permethrin	101	102	P/P	45 - 111
Phenothrin	82.9	83.0	P/P	22 - 88.0
Piperonyl Butoxide	129	129	F/F	67 - 120
Prallethrin	84.7	92.1	P/F	28 - 92.0
Tau-Fluvalinate	128	131	P/P	38 - 145
Tetramethrin	102	101	P/P	29 - 150
Trans-Nonachlor	80.8	84.8	P/P	54 - 105
Triclosan Methyl	98.8	106	P/P	76 - 115
Trifluralin	82.1	82.9	P/P	53 - 111

Reference Method: EPA 8276
Batch ID: P394215

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	107	106	P/P	56 - 117
Toxaphene	112	110	P/P	45 - 116

Reference Method: EPA 8321B
Batch ID: P394079

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	114		P	30 - 160
2,4,5-T	87.1		P	30 - 160
3-Hydroxycarbofuran	79.9		P	30 - 160
Acetaminophen	76.0		P	30 - 160
Acetamiprid	81.0		P	30 - 160
Afidopyropen	51.2		P	30 - 160
Aldicarb	70.4		P	30 - 160
Aldicarb Sulfone	102		P	30 - 160
Aldicarb Sulfoxide	111		P	30 - 160
Bentazon	64.0		P	30 - 160
Benzovindiflupyr	77.1		P	30 - 160
Carbamazepine	104		P	30 - 160
Carbaryl	68.7		P	30 - 160
Carbofuran	70.2		P	30 - 160
Clothianidin	99.3		P	30 - 160
Dinotefuran	85.4		P	30 - 160

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P394079

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Diuron	70.1		P	30 - 160
Fenuron	107		P	30 - 160
Fluridone	88.3		P	30 - 160
Hydrocodone	103		P	30 - 160
Ibuprofen	71.4		P	30 - 160
Imazapyr	81.8		P	30 - 160
Imidacloprid	104		P	30 - 160
Linuron	74.2		P	30 - 160
Mandestrobin	84.6		P	30 - 160
MCPP	95.8		P	30 - 160
Methiocarb	63.4		P	30 - 160
Methomyl	85.6		P	30 - 160
Naproxen	49.5		P	30 - 160
Oxamyl	97.8		P	30 - 160
Primidone	101		P	30 - 160
Propoxur	69.9		P	30 - 160
Pyraclostrobin	80.5		P	30 - 160
Thiamethoxam	99.4		P	30 - 160
Tolfenpyrad	52.0		P	30 - 160
Triclopyr	82.9		P	30 - 160

Reference Method: EPA 8321B

Batch ID: P394168

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	75.2		P	40 - 150
AMPA	87.0		P	40 - 150
Endothall	104		P	40 - 150
Glufosinate	98.5		P	40 - 150
Glyphosate	150		F	40 - 140
Sucralose	117		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P394513

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	93.6		P	93 - 104

Reference Method: SM 4500 F-C-2011

Batch ID: P394516

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.1		P	90 - 106

Reference Method: SM 5310 B-2011

Batch ID: P394725

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.8		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P394231

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2227163	Chromium	90.0	92.9	P/P	80 - 120
2227163	Iron	92.4	99.2	P/P	80 - 120
2227163	Manganese	95.1	97.7	P/P	80 - 120
2227163	Zinc	95.0	98.1	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P394231

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2227163	Aluminum	94.9	95.8	P/P	70 - 130
2227163	Antimony	108	108	P/P	70 - 130
2227163	Arsenic	108	105	P/P	70 - 130
2227163	Beryllium	96.4	92.6	P/P	70 - 130
2227163	Cadmium	96.2	94.8	P/P	70 - 130
2227163	Copper	102	102	P/P	70 - 130
2227163	Lead	110	109	P/P	70 - 130
2227163	Nickel	100	98.7	P/P	70 - 130
2227163	Selenium	101	99.1	P/P	70 - 130
2227163	Silver	96.2	96.0	P/P	70 - 130
2227163	Thallium	112	113	P/P	70 - 130

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P394335

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2226337	Bromide	95.5	93.9	P/P	90 - 110
2226988	Bromide	95.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P394303

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2226973	Ammonia-N	96.8	97.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P394329

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2227023	Ammonia-N	96.0	97.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P394197

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2226812	NO2NO3-N	102	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P394245

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2226812	Total-P	102	105	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P394180

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2226950	O-Phosphate-P	97.9	97.9	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P394214

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2227372	Acetochlor	101	79.4	P/P	66 - 122
2227372	Alachlor	96.6	82.4	P/P	65 - 122
2227372	Ametryn	150	133	P/P	45 - 173
2227372	Atrazine Desethyl	76.3	67.4	P/P	25 - 150
2227372	Azinphos Methyl	106	93.0	P/P	44 - 174
2227372	Azoxystrobin	117	93.7	P/P	10 - 268
2227372	Bromacil	85.9	63.8	P/P	31 - 145
2227372	Butylate	61.5	48.4	P/P	15 - 97.0
2227372	Caffeine	131	104	F/P	70 - 130
2227372	Carbophenothion	83.0	69.3	P/P	42 - 129
2227372	Carfentrazone Ethyl	84.5	60.8	P/F	62 - 145
2227372	Chlorpyrifos Ethyl	82.5	71.4	P/P	60 - 124
2227372	Chlorpyrifos Methyl	88.8	75.4	P/P	66 - 119
2227372	Cyanazine	91.8	78.6	P/P	17 - 225
2227372	Demeton	103	89.4	P/P	36 - 142
2227372	Diazinon	99.5	80.2	P/P	70 - 128
2227372	Difenoconazole	131	111	P/P	33 - 222
2227372	Dimethenamid	98.2	78.9	P/P	54 - 125
2227372	Disulfoton	83.1	67.2	P/P	49 - 133
2227372	Dithiopyr	94.4	76.8	P/P	55 - 123
2227372	EPTC	55.6	47.3	P/P	19 - 91.0
2227372	Ethion	60.9	55.9	P/P	13 - 143
2227372	Ethoprop	88.1	74.3	P/P	49 - 144
2227372	Fenamiphos	99.4	82.8	P/P	32 - 136
2227372	Fenbuconazole	96.9	80.9	P/P	73 - 148
2227372	Fipronil	90.3	76.5	P/P	57 - 129
2227372	Fipronil Desulfinyl	83.8	67.5	P/P	49 - 127
2227372	Fipronil Sulfide	65.0	58.8	P/P	44 - 127
2227372	Fipronil Sulfone	78.4	60.3	P/P	35 - 126
2227372	Fluazifop-P-butyl	90.1	74.7	P/P	67 - 129
2227372	Fludioxonil	88.0	75.0	P/P	61 - 126
2227372	Flumioxazin	145	126	P/P	38 - 279
2227372	Flutolanil	79.1	66.4	P/P	55 - 136
2227372	Fluxapyroxad	75.8	67.7	P/P	33 - 140
2227372	Fonofos	87.0	73.0	P/P	58 - 125
2227372	Imazalil	128	109	P/P	10 - 221
2227372	Iprodione	79.3	67.3	P/P	32 - 140
2227372	Malathion	93.1	81.0	P/P	52 - 138
2227372	Metalaxyl	89.9	78.0	P/P	46 - 134
2227372	Metolachlor	96.4	77.2	P/P	58 - 122
2227372	Metribuzin	126	89.0	P/P	16 - 272
2227372	Mevinphos	87.0	74.5	P/P	45 - 140
2227372	Molinate	71.3	58.5	P/P	41 - 103
2227372	Myclobutanil	92.8	78.9	P/P	60 - 134
2227372	Naled	72.8	61.3	P/P	20 - 113
2227372	Norflurazon	75.8	63.9	P/P	51 - 123

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P394214

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2227372	Oxadiazon	91.6	65.2	P/P	44 - 125
2227372	Oxyfluorfen	111	89.9	P/P	66 - 176
2227372	Parathion Ethyl	93.6	76.7	P/P	57 - 132
2227372	Parathion Methyl	96.4	85.1	P/P	59 - 156
2227372	Pendimethalin	98.6	80.5	P/P	59 - 129
2227372	Phorate	93.7	76.4	P/P	47 - 136
2227372	Prodiamine	68.0	56.0	P/P	10 - 159
2227372	Prometon	87.7	79.5	P/P	59 - 127
2227372	Prometryn	89.6	77.7	P/P	59 - 129
2227372	Pronamide	122	103	P/P	65 - 145
2227372	Propiconazole	81.6	65.1	P/P	28 - 165
2227372	Pyriproxyfen	63.9	54.0	P/P	21 - 180
2227372	Simazine	128	116	P/P	63 - 147
2227372	Sulfentrazone	83.2	60.3	P/P	32 - 136
2227372	Tebuconazole	54.6	46.0	P/P	10 - 117
2227372	Terbufos	88.7	74.0	P/P	61 - 131
2227372	Terbutylazine	98.9	83.0	P/P	62 - 126

Reference Method: EPA 8270E
Batch ID: P394215

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2227433	Alpha-BHC	84.1	87.6	P/P	53 - 147
2227433	Alpha-Chlordane	80.1	77.9	P/P	56 - 107
2227433	Beta-BHC	74.8	70.8	P/P	43 - 182
2227433	Beta-Cyfluthrin	137	138	P/P	42 - 157
2227433	Bifenthrin	130	132	F/F	52 - 124
2227433	Chlorothalonil	90.0	74.3	P/P	10 - 265
2227433	Cis-Nonachlor	78.6	79.4	P/P	55 - 112
2227433	Cypermethrin	137	141	P/P	46 - 144
2227433	Dacthal	90.8	88.5	P/P	72 - 110
2227433	DDD-p,p'	98.9	97.2	P/P	58 - 123
2227433	DDE-p,p'	91.4	89.4	P/P	52 - 106
2227433	DDT-p,p'	84.4	92.5	P/P	50 - 127
2227433	Delta-BHC	149	154	P/P	56 - 222
2227433	Deltamethrin	122	133	P/P	47 - 152
2227433	Dichlobenil	83.5	94.9	P/P	22 - 99.0
2227433	Dicofol	98.5	107	P/P	38 - 145
2227433	Endosulfan I	91.6	87.1	P/P	64 - 124
2227433	Endosulfan II	169	174	F/F	52 - 159
2227433	Endosulfan Sulfate	114	111	P/P	62 - 136
2227433	Endrin	94.8	91.8	P/P	57 - 126
2227433	Endrin Aldehyde	72.3	59.5	P/P	41 - 128
2227433	Endrin Ketone	94.0	97.6	P/P	67 - 129
2227433	Esfenvalerate	122	126	F/F	50 - 120
2227433	Ethalfuralin	83.7	87.7	P/P	41 - 125
2227433	Fenpropathrin	190	198	P/P	40 - 202
2227433	Gamma-BHC	124	133	P/P	58 - 180
2227433	Gamma-Chlordane	78.3	77.2	P/P	54 - 103
2227433	Heptachlor	76.1	72.1	P/P	46 - 94.0
2227433	Heptachlor Epoxide	82.4	80.4	P/P	62 - 111
2227433	Hexachlorobenzene	65.3	76.1	P/P	42 - 95.0

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P394215

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2227433	Lambda-Cyhalothrin	132	135	P/P	37 - 162
2227433	Methoxychlor	98.5	100	P/P	52 - 143
2227433	MGK-264	92.1	95.1	P/P	37 - 102
2227433	Mirex	86.2	86.9	P/P	43 - 91.0
2227433	Permethrin	112	111	P/P	48 - 113
2227433	Phenothrin	97.1	101	P/P	30 - 104
2227433	Piperonyl Butoxide	136	146	F/F	67 - 127
2227433	Prallethrin	88.4	94.3	P/P	28 - 102
2227433	Tau-Fluvalinate	144	155	P/P	46 - 174
2227433	Tetramethrin	134	140	P/P	28 - 176
2227433	Trans-Nonachlor	80.2	78.0	P/P	51 - 103
2227433	Triclosan Methyl	98.8	97.5	P/P	67 - 116
2227433	Trifluralin	81.3	80.3	P/P	47 - 118
2227531	Aldrin	69.3	73.9	P/P	22 - 127
2227531	Dieldrin	77.6	83.9	P/P	52 - 123
2227531	Kepone	110	109	P/P	18 - 138

Reference Method: EPA 8276

Batch ID: P394215

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2227531	Chlordane	101	103	P/P	47 - 128
2227531	Toxaphene	135	134	P/P	11 - 163

Reference Method: EPA 8321B

Batch ID: P394079

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2225912	3-Hydroxycarbofuran	102	91.4	P/P	30 - 160
2225912	Aldicarb	76.0	61.9	P/P	30 - 160
2225912	Aldicarb Sulfone	119	110	P/P	30 - 160
2225912	Aldicarb Sulfoxide	41.0	43.8	P/P	30 - 160
2225912	Carbaryl	57.8	51.0	P/P	30 - 160
2225912	Carbofuran	54.3	51.8	P/P	30 - 160
2225912	Methiocarb	68.0	58.7	P/P	30 - 160
2225912	Methomyl	85.3	72.8	P/P	30 - 160
2225912	Oxamyl	97.0	92.2	P/P	30 - 160
2225912	Propoxur	55.9	54.9	P/P	30 - 160
2227057	2,4-D	91.2	81.8	P/P	30 - 160
2227057	2,4,5-T	77.4	73.4	P/P	30 - 160
2227057	Acetaminophen	94.8	94.8	P/P	30 - 160
2227057	Acetamiprid	91.2	103	P/P	30 - 160
2227057	Afidopyropen	74.9	77.0	P/P	30 - 160
2227057	Benzovindiflupyr	72.0	71.1	P/P	30 - 160
2227057	Clothianidin	101	88.7	P/P	30 - 160
2227057	Dinotefuran	114	113	P/P	30 - 160
2227057	Diuron	53.6	50.8	P/P	30 - 160
2227057	Fenuron	74.0	64.4	P/P	30 - 160
2227057	Fluridone	48.9	74.1	P/P	30 - 160
2227057	Hydrocodone	100	94.1	P/P	30 - 160
2227057	Ibuprofen	51.7	62.0	P/P	30 - 160
2227057	Imazapyr	81.8	64.3	P/P	30 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P394079

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2227057	Imidacloprid	138	139	P/P	30 - 160
2227057	Linuron	53.8	53.9	P/P	30 - 160
2227057	Mandestrobin	78.3	81.7	P/P	30 - 160
2227057	MCPP	78.5	81.6	P/P	30 - 160
2227057	Naproxen	58.9	54.8	P/P	30 - 160
2227057	Primidone	92.1	82.5	P/P	30 - 160
2227057	Pyraclostrobin	79.5	79.8	P/P	30 - 160
2227057	Thiamethoxam	116	112	P/P	30 - 160
2227057	Tolfenpyrad	58.4	61.7	P/P	30 - 160
2227057	Triclopyr	76.0	80.8	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P394168

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2227238	Acesulfame K	49.0	51.8	P/P	40 - 150
2227238	AMPA	101	105	P/P	40 - 150
2227238	Endothall	101	106	P/P	40 - 150
2227238	Glufosinate	104	110	P/P	40 - 150
2227238	Glyphosate	126	132	P/P	40 - 140
2227238	Sucralose	102	102	P/P	40 - 150

Reference Method: SM 5310 B-2011
Batch ID: P394725

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2226984	Organic Carbon	94.5	93.2	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P394183

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226810	Turbidity	2.68	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P394231

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2227163	Calcium	3.76	Spike	P	0 - 20
2227163	Chromium	3.11	Spike	P	0 - 20
2227163	Iron	3.94	Spike	P	0 - 20
2227163	Magnesium	2.71	Spike	P	0 - 20
2227163	Manganese	2.53	Spike	P	0 - 20
2227163	Zinc	3.23	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P394231

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2227163	Aluminum	0.990	Spike	P	0 - 20
2227163	Antimony	0.703	Spike	P	0 - 20
2227163	Arsenic	2.33	Spike	P	0 - 20
2227163	Beryllium	4.02	Spike	P	0 - 20
2227163	Cadmium	1.46	Spike	P	0 - 20
2227163	Copper	0.469	Spike	P	0 - 20
2227163	Lead	0.686	Spike	P	0 - 20
2227163	Nickel	1.40	Spike	P	0 - 20
2227163	Selenium	1.85	Spike	P	0 - 20
2227163	Silver	0.170	Spike	P	0 - 20
2227163	Thallium	0.336	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P394335

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226337	Bromide	1.65	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P394303

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226973	Ammonia-N	0.752	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P394329

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2227023	Ammonia-N	0.710	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P394208

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226948	Kjeldahl Nitrogen	8.45	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P394197

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226812	NO2NO3-N	0.487	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P394245

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226812	Total-P	3.23	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P394180

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226950	O-Phosphate-P	0.0	Spike	P	0 - 20

Reference Method: EPA 8270E

Batch ID: P394214

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2227372	Acetochlor	24.4	Spike	P	0 - 30
2227372	Alachlor	15.8	Spike	P	0 - 30
2227372	Ametryn	12.2	Spike	P	0 - 30
2227372	Atrazine	15.4	Spike	P	0 - 30
2227372	Atrazine Desethyl	12.5	Spike	P	0 - 30
2227372	Azinphos Methyl	13.2	Spike	P	0 - 30
2227372	Azoxystrobin	21.9	Spike	P	0 - 30
2227372	Bromacil	29.6	Spike	P	0 - 30
2227372	Butylate	23.9	Spike	P	0 - 30
2227372	Caffeine	22.4	Spike	P	0 - 30
2227372	Carbophenothion	18.0	Spike	P	0 - 30
2227372	Carfentrazone Ethyl	32.5	Spike	F	0 - 30
2227372	Chlorpyrifos Ethyl	14.3	Spike	P	0 - 30
2227372	Chlorpyrifos Methyl	16.4	Spike	P	0 - 30
2227372	Cyanazine	15.5	Spike	P	0 - 30
2227372	Demeton	14.4	Spike	P	0 - 30
2227372	Diazinon	21.4	Spike	P	0 - 30
2227372	Difenoconazole	17.0	Spike	P	0 - 30
2227372	Dimethenamid	21.8	Spike	P	0 - 30
2227372	Disulfoton	21.1	Spike	P	0 - 30
2227372	Dithiopyr	20.6	Spike	P	0 - 30
2227372	EPTC	16.3	Spike	P	0 - 30
2227372	Ethion	8.59	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P394214

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2227372	Ethoprop	17.1	Spike	P	0 - 30
2227372	Fenamiphos	18.3	Spike	P	0 - 30
2227372	Fenbuconazole	18.0	Spike	P	0 - 30
2227372	Fipronil	16.6	Spike	P	0 - 30
2227372	Fipronil Desulfinyl	19.3	Spike	P	0 - 30
2227372	Fipronil Sulfide	8.18	Spike	P	0 - 30
2227372	Fipronil Sulfone	14.6	Spike	P	0 - 30
2227372	Fluazifop-P-butyl	18.7	Spike	P	0 - 30
2227372	Fludioxonil	15.9	Spike	P	0 - 30
2227372	Flumioxazin	14.4	Spike	P	0 - 30
2227372	Flutolanil	15.9	Spike	P	0 - 30
2227372	Fluxapyroxad	9.22	Spike	P	0 - 30
2227372	Fonofos	17.5	Spike	P	0 - 30
2227372	Hexazinone	12.6	Spike	P	0 - 30
2227372	Imazalil	16.1	Spike	P	0 - 30
2227372	Iprodione	16.4	Spike	P	0 - 30
2227372	Malathion	13.9	Spike	P	0 - 30
2227372	Metalaxyl	14.2	Spike	P	0 - 30
2227372	Metolachlor	22.0	Spike	P	0 - 30
2227372	Metribuzin	34.8	Spike	F	0 - 30
2227372	Mevinphos	15.4	Spike	P	0 - 30
2227372	Molinate	19.7	Spike	P	0 - 30
2227372	Myclobutanil	16.1	Spike	P	0 - 30
2227372	Naled	17.1	Spike	P	0 - 30
2227372	Norflurazon	17.1	Spike	P	0 - 30
2227372	Oxadiazon	17.3	Spike	P	0 - 30
2227372	Oxyfluorfen	21.1	Spike	P	0 - 30
2227372	Parathion Ethyl	19.8	Spike	P	0 - 30
2227372	Parathion Methyl	12.4	Spike	P	0 - 30
2227372	Pendimethalin	20.3	Spike	P	0 - 30
2227372	Phorate	20.3	Spike	P	0 - 30
2227372	Prodiamine	19.3	Spike	P	0 - 30
2227372	Prometon	9.77	Spike	P	0 - 30
2227372	Prometryn	14.1	Spike	P	0 - 30
2227372	Pronamide	16.8	Spike	P	0 - 30
2227372	Propiconazole	18.9	Spike	P	0 - 30
2227372	Pyriproxyfen	16.9	Spike	P	0 - 30
2227372	Simazine	9.87	Spike	P	0 - 30
2227372	Sulfentrazone	18.1	Spike	P	0 - 30
2227372	Tebuconazole	17.1	Spike	P	0 - 30
2227372	Terbufos	18.1	Spike	P	0 - 30
2227372	Terbutylazine	17.5	Spike	P	0 - 30
LFB	Acetochlor	1.77	LCS	P	0 - 30
LFB	Alachlor	0.344	LCS	P	0 - 30
LFB	Ametryn	15.4	LCS	P	0 - 30
LFB	Atrazine	2.92	LCS	P	0 - 30
LFB	Atrazine Desethyl	10.5	LCS	P	0 - 30
LFB	Azinphos Methyl	0.0916	LCS	P	0 - 30
LFB	Azoxystrobin	6.74	LCS	P	0 - 30
LFB	Bromacil	10.7	LCS	P	0 - 30
LFB	Butylate	3.57	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P394214

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Caffeine	4.43	LCS	P	0 - 30
LFB	Carbophenothion	0.0606	LCS	P	0 - 30
LFB	Carfentrazone Ethyl	9.19	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	3.88	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	2.61	LCS	P	0 - 30
LFB	Cyanazine	5.23	LCS	P	0 - 30
LFB	Demeton	4.52	LCS	P	0 - 30
LFB	Diazinon	2.20	LCS	P	0 - 30
LFB	Difenoconazole	2.13	LCS	P	0 - 30
LFB	Dimethenamid	2.02	LCS	P	0 - 30
LFB	Disulfoton	1.05	LCS	P	0 - 30
LFB	Dithiopyr	1.59	LCS	P	0 - 30
LFB	EPTC	1.66	LCS	P	0 - 30
LFB	Ethion	5.32	LCS	P	0 - 30
LFB	Ethoprop	0.438	LCS	P	0 - 30
LFB	Fenamiphos	7.70	LCS	P	0 - 30
LFB	Fenbuconazole	4.32	LCS	P	0 - 30
LFB	Fipronil	4.87	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	2.55	LCS	P	0 - 30
LFB	Fipronil Sulfide	3.61	LCS	P	0 - 30
LFB	Fipronil Sulfone	2.07	LCS	P	0 - 30
LFB	Fluazifop-P-butyl	1.94	LCS	P	0 - 30
LFB	Fludioxonil	3.98	LCS	P	0 - 30
LFB	Flumioxazin	1.57	LCS	P	0 - 30
LFB	Flutolanil	3.14	LCS	P	0 - 30
LFB	Fluxapyroxad	4.10	LCS	P	0 - 30
LFB	Fonofos	5.42	LCS	P	0 - 30
LFB	Hexazinone	0.628	LCS	P	0 - 30
LFB	Imazalil	2.62	LCS	P	0 - 30
LFB	Iprodione	1.65	LCS	P	0 - 30
LFB	Malathion	2.67	LCS	P	0 - 30
LFB	Metalaxyl	5.21	LCS	P	0 - 30
LFB	Metolachlor	3.28	LCS	P	0 - 30
LFB	Metribuzin	9.03	LCS	P	0 - 30
LFB	Mevinphos	3.58	LCS	P	0 - 30
LFB	Molinate	0.246	LCS	P	0 - 30
LFB	Myclobutanil	1.71	LCS	P	0 - 30
LFB	Naled	0.809	LCS	P	0 - 30
LFB	Norflurazon	4.07	LCS	P	0 - 30
LFB	Oxadiazon	2.36	LCS	P	0 - 30
LFB	Oxyfluorfen	1.81	LCS	P	0 - 30
LFB	Parathion Ethyl	2.80	LCS	P	0 - 30
LFB	Parathion Methyl	8.07	LCS	P	0 - 30
LFB	Pendimethalin	3.17	LCS	P	0 - 30
LFB	Phorate	7.94	LCS	P	0 - 30
LFB	Prodiamine	1.98	LCS	P	0 - 30
LFB	Prometon	1.62	LCS	P	0 - 30
LFB	Prometryn	8.23	LCS	P	0 - 30
LFB	Pronamide	3.23	LCS	P	0 - 30
LFB	Propiconazole	0.444	LCS	P	0 - 30
LFB	Pyriproxyfen	1.50	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P394214

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Simazine	3.16	LCS	P	0 - 30
LFB	Sulfentrazone	0.960	LCS	P	0 - 30
LFB	Tebuconazole	5.63	LCS	P	0 - 30
LFB	Terbufos	4.38	LCS	P	0 - 30
LFB	Terbutylazine	1.56	LCS	P	0 - 30

Reference Method: EPA 8270E

Batch ID: P394215

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2227433	Alpha-BHC	4.06	Spike	P	0 - 30
2227433	Alpha-Chlordane	2.86	Spike	P	0 - 30
2227433	Beta-BHC	5.51	Spike	P	0 - 30
2227433	Beta-Cyfluthrin	0.515	Spike	P	0 - 30
2227433	Bifenthrin	1.03	Spike	P	0 - 30
2227433	Chlorothalonil	19.2	Spike	P	0 - 30
2227433	Cis-Nonachlor	0.941	Spike	P	0 - 30
2227433	Cypermethrin	3.46	Spike	P	0 - 30
2227433	Dacthal	2.60	Spike	P	0 - 30
2227433	DDD-p,p'	1.76	Spike	P	0 - 30
2227433	DDE-p,p'	2.18	Spike	P	0 - 30
2227433	DDT-p,p'	9.25	Spike	P	0 - 30
2227433	Delta-BHC	3.51	Spike	P	0 - 30
2227433	Deltamethrin	8.46	Spike	P	0 - 30
2227433	Dichlobenil	12.8	Spike	P	0 - 30
2227433	Dicofol	7.97	Spike	P	0 - 30
2227433	Endosulfan I	4.96	Spike	P	0 - 30
2227433	Endosulfan II	2.78	Spike	P	0 - 30
2227433	Endosulfan Sulfate	2.60	Spike	P	0 - 30
2227433	Endrin	3.23	Spike	P	0 - 30
2227433	Endrin Aldehyde	19.4	Spike	P	0 - 30
2227433	Endrin Ketone	3.70	Spike	P	0 - 30
2227433	Esfenvalerate	3.58	Spike	P	0 - 30
2227433	Ethalfuralin	4.65	Spike	P	0 - 30
2227433	Fenpropathrin	4.05	Spike	P	0 - 30
2227433	Gamma-BHC	7.09	Spike	P	0 - 30
2227433	Gamma-Chlordane	1.41	Spike	P	0 - 30
2227433	Heptachlor	5.44	Spike	P	0 - 30
2227433	Heptachlor Epoxide	2.53	Spike	P	0 - 30
2227433	Hexachlorobenzene	15.3	Spike	P	0 - 30
2227433	Lambda-Cyhalothrin	2.15	Spike	P	0 - 30
2227433	Methoxychlor	1.69	Spike	P	0 - 30
2227433	MGK-264	3.13	Spike	P	0 - 30
2227433	Mirex	0.841	Spike	P	0 - 30
2227433	Permethrin	0.397	Spike	P	0 - 30
2227433	Phenothrin	3.57	Spike	P	0 - 30
2227433	Piperonyl Butoxide	7.13	Spike	P	0 - 30
2227433	Prallethrin	6.45	Spike	P	0 - 30
2227433	Tau-Fluvalinate	6.86	Spike	P	0 - 30
2227433	Tetramethrin	3.97	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P394215

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2227433	Trans-Nonachlor	2.83	Spike	P	0 - 30
2227433	Triclosan Methyl	1.34	Spike	P	0 - 30
2227433	Trifluralin	1.20	Spike	P	0 - 30
2227531	Aldrin	6.43	Spike	P	0 - 30
2227531	Dieldrin	7.79	Spike	P	0 - 30
2227531	Kepone	0.281	Spike	P	0 - 30
LFB	Aldrin	6.62	LCS	P	0 - 30
LFB	Alpha-BHC	5.23	LCS	P	0 - 30
LFB	Alpha-Chlordane	4.12	LCS	P	0 - 30
LFB	Beta-BHC	6.45	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	4.22	LCS	P	0 - 30
LFB	Bifenthrin	0.841	LCS	P	0 - 30
LFB	Chlorothalonil	1.74	LCS	P	0 - 30
LFB	Cis-Nonachlor	3.82	LCS	P	0 - 30
LFB	Cypermethrin	3.16	LCS	P	0 - 30
LFB	Dacthal	5.42	LCS	P	0 - 30
LFB	DDD-p,p'	4.23	LCS	P	0 - 30
LFB	DDE-p,p'	4.69	LCS	P	0 - 30
LFB	DDT-p,p'	2.52	LCS	P	0 - 30
LFB	Delta-BHC	5.77	LCS	P	0 - 30
LFB	Deltamethrin	2.73	LCS	P	0 - 30
LFB	Dichlobenil	5.84	LCS	P	0 - 30
LFB	Dicofol	1.05	LCS	P	0 - 30
LFB	Dieldrin	3.31	LCS	P	0 - 30
LFB	Endosulfan I	0.262	LCS	P	0 - 30
LFB	Endosulfan II	0.0158	LCS	P	0 - 30
LFB	Endosulfan Sulfate	2.69	LCS	P	0 - 30
LFB	Endrin	1.54	LCS	P	0 - 30
LFB	Endrin Aldehyde	17.1	LCS	P	0 - 30
LFB	Endrin Ketone	1.22	LCS	P	0 - 30
LFB	Esfenvalerate	5.52	LCS	P	0 - 30
LFB	Ethalfuralin	0.245	LCS	P	0 - 30
LFB	Fenpropathrin	0.730	LCS	P	0 - 30
LFB	Gamma-BHC	2.15	LCS	P	0 - 30
LFB	Gamma-Chlordane	4.13	LCS	P	0 - 30
LFB	Heptachlor	6.91	LCS	P	0 - 30
LFB	Heptachlor Epoxide	5.25	LCS	P	0 - 30
LFB	Hexachlorobenzene	0.331	LCS	P	0 - 30
LFB	Kepone	5.76	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	0.843	LCS	P	0 - 30
LFB	Methoxychlor	2.23	LCS	P	0 - 30
LFB	MGK-264	1.93	LCS	P	0 - 30
LFB	Mirex	2.24	LCS	P	0 - 30
LFB	Permethrin	0.487	LCS	P	0 - 30
LFB	Phenothrin	0.103	LCS	P	0 - 30
LFB	Piperonyl Butoxide	0.407	LCS	P	0 - 30
LFB	Prallethrin	8.31	LCS	P	0 - 30
LFB	Tau-Fluvalinate	2.31	LCS	P	0 - 30
LFB	Tetramethrin	0.310	LCS	P	0 - 30
LFB	Trans-Nonachlor	4.76	LCS	P	0 - 30
LFB	Triclosan Methyl	6.97	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P394215

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Trifluralin	0.936	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P394215

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2227531	Chlordane	1.25	Spike	P	0 - 30
2227531	Toxaphene	0.781	Spike	P	0 - 30
LFB	Chlordane	1.02	LCS	P	0 - 30
LFB	Toxaphene	1.78	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P394079

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2225912	3-Hydroxycarbofuran	10.6	Spike	P	0 - 30
2225912	Aldicarb	20.5	Spike	P	0 - 30
2225912	Aldicarb Sulfone	7.89	Spike	P	0 - 30
2225912	Aldicarb Sulfoxide	6.68	Spike	P	0 - 30
2225912	Carbaryl	12.4	Spike	P	0 - 30
2225912	Carbofuran	4.64	Spike	P	0 - 30
2225912	Methiocarb	14.5	Spike	P	0 - 30
2225912	Methomyl	15.9	Spike	P	0 - 30
2225912	Oxamyl	5.07	Spike	P	0 - 30
2225912	Propoxur	1.82	Spike	P	0 - 30
2227057	2,4-D	9.45	Spike	P	0 - 30
2227057	2,4,5-T	5.39	Spike	P	0 - 30
2227057	Acetaminophen	0.00359	Spike	P	0 - 30
2227057	Acetamiprid	12.0	Spike	P	0 - 30
2227057	Afidopyropen	2.82	Spike	P	0 - 30
2227057	Bentazon	15.4	Spike	P	0 - 30
2227057	Benzovindiflupyr	1.35	Spike	P	0 - 30
2227057	Carbamazepine	1.80	Spike	P	0 - 30
2227057	Clothianidin	12.4	Spike	P	0 - 30
2227057	Dinotefuran	0.775	Spike	P	0 - 30
2227057	Diuron	4.40	Spike	P	0 - 30
2227057	Fenuron	13.9	Spike	P	0 - 30
2227057	Fluridone	26.5	Spike	P	0 - 30
2227057	Hydrocodone	6.38	Spike	P	0 - 30
2227057	Ibuprofen	18.1	Spike	P	0 - 30
2227057	Imazapyr	10.5	Spike	P	0 - 30
2227057	Imidacloprid	0.158	Spike	P	0 - 30
2227057	Linuron	0.228	Spike	P	0 - 30
2227057	Mandestrobin	4.30	Spike	P	0 - 30
2227057	MCP	3.90	Spike	P	0 - 30
2227057	Naproxen	7.23	Spike	P	0 - 30
2227057	Primidone	7.28	Spike	P	0 - 30
2227057	Pyraclostrobin	0.409	Spike	P	0 - 30
2227057	Thiamethoxam	4.03	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P394079

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2227057	Tolfenpyrad	5.54	Spike	P	0 - 30
2227057	Triclopyr	6.03	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P394168

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2227238	Acesulfame K	5.71	Spike	P	0 - 30
2227238	AMPA	3.97	Spike	P	0 - 30
2227238	Endothall	5.33	Spike	P	0 - 30
2227238	Glufosinate	5.82	Spike	P	0 - 30
2227238	Glyphosate	3.81	Spike	P	0 - 30
2227238	Sucralose	0.0536	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P394513

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2227604	Total Alkalinity	0.101	Sample	P	0 - 8.1

Reference Method: SM 4500 F-C-2011
Batch ID: P394516

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2227604	Fluoride	0.0	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011
Batch ID: P394725

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226984	Organic Carbon	0.998	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2227007
Field Sample ID: 27010965

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	36.7	P	30 - 160

Lab Sample ID: 2227008
Field Sample ID: 27010965

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	61.8	P	30 - 160
EPA 8321B	Acetaminophen-d4	103	P	30 - 160
EPA 8321B	Carbamazepine-d10	74.0	P	30 - 160
EPA 8321B	Diuron-d6	47.1	P	30 - 160
EPA 8321B	Endothall-d6	104	P	40 - 160
EPA 8321B	Endothall-d6	104	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	99.9	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	99.9	P	40 - 160
EPA 8321B	Ibuprofen-d3	59.4	P	30 - 160
EPA 8321B	Primidone-d5	52.1	P	30 - 160
EPA 8321B	Sucralose-d6	86.5	P	30 - 160
EPA 8321B	Sucralose-d6	86.5	P	30 - 160

Lab Sample ID: 2227014
Field Sample ID: 27010965

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	97.7	P	40 - 123
EPA 8270E	Decachlorobiphenyl	53.9	P	47 - 111
EPA 8270E	Tetrachloro-m-xylene	72.9	P	31 - 100
EPA 8270E	Tetrachloro-m-xylene	71.7	P	33 - 102
EPA 8276	Decachlorobiphenyl	66.9	P	29 - 92.0
EPA 8276	PCNB	99.9	P	43 - 134

Lab Sample ID: 2227015
Field Sample ID: 27010965

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	75.0	P	20 - 200
EPA 8270E	Simazine-d10	104	P	73 - 135
EPA 8270E	Terbufos-d10	90.7	P	58 - 130

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A103734

Included Lab Sample IDs: 2226988, 2226990

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A103749

Included Lab Sample IDs: 2226992, 2227056

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.1	98.5	P/P	90 - 110
O-Phosphate-P	98.5	98.6	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A103750

Included Lab Sample IDs: 2226988, 2226990

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

Reference Method: EPA 8321B

Run ID: A103756

Included Lab Sample IDs: 2227008

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	103	89.8	P/P	50 - 150
2,4,5-T	106	92.8	P/P	50 - 150
3-Hydroxycarbofuran	116	107	P/P	60 - 150
Acetaminophen	91.8	93.2	P/P	60 - 160
Acetamiprid	113	110	P/P	50 - 150
Afidopyropen	107	83.7	P/P	50 - 150
Aldicarb	118	112	P/P	60 - 150
Aldicarb Sulfone	104	117	P/P	50 - 150
Aldicarb Sulfoxide	109	105	P/P	50 - 150
Bentazon	107	102	P/P	50 - 160
Benzovindiflupyr	112	98.4	P/P	50 - 160
Carbamazepine	112	108	P/P	60 - 150
Carbaryl	121	128	P/P	60 - 150
Carbofuran	120	110	P/P	50 - 150
Clothianidin	98.6	98.5	P/P	60 - 150
Dinotefuran	106	100	P/P	50 - 150
Diuron	117	120	P/P	60 - 160
Fenuron	108	99.6	P/P	60 - 150
Fluridone	125	116	P/P	60 - 160
Hydrocodone	117	99.6	P/P	60 - 150
Ibuprofen	81.3	99.8	P/P	50 - 160
Imazapyr	89.2	87.4	P/P	50 - 160
Imidacloprid	100	102	P/P	60 - 150
Linuron	111	105	P/P	60 - 150
Mandestrobin	115	110	P/P	50 - 150
MCPP	108	99.1	P/P	50 - 150
Methiocarb	119	113	P/P	50 - 150
Methomyl	115	109	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A103756
Included Lab Sample IDs: 2227008

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Naproxen	94.7	99.5	P/P	50 - 160
Oxamyl	117	98.9	P/P	50 - 150
Primidone	101	95.0	P/P	60 - 150
Propoxur	122	114	P/P	50 - 150
Pyraclostrobin	119	109	P/P	60 - 150
Thiamethoxam	102	101	P/P	50 - 150
Tolfenpyrad	120	118	P/P	60 - 150
Triclopyr	99.2	98.3	P/P	50 - 150

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A103760
Included Lab Sample IDs: 2226989, 2226991

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	104	104	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A103768
Included Lab Sample IDs: 2227008

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	81.4	66.4	P/P	60 - 160
AMPA	97.5	87.7	P/P	60 - 160
Endothall	112	93.9	P/P	60 - 160
Glufosinate	106	77.2	P/P	60 - 160
Glyphosate	138	132	P/P	60 - 160

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A103798
Included Lab Sample IDs: 2226989, 2226991

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	92.9	97.2	P/P	90 - 110
Kjeldahl Nitrogen	97.2	93.2	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A103810
Included Lab Sample IDs: 2226989

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.9	98.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A103825
Included Lab Sample IDs: 2226989

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A103826

Included Lab Sample IDs: 2226991

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A103827

Included Lab Sample IDs: 2226991

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A103829

Included Lab Sample IDs: 2227016

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	104	103	P/P	90 - 110
Chromium	99.4	99.4	P/P	90 - 110
Iron	103	101	P/P	90 - 110
Magnesium	102	100	P/P	90 - 110
Manganese	103	103	P/P	90 - 110
Zinc	102	100	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A103897

Included Lab Sample IDs: 2227014

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Alpha-BHC	106		P	80 - 120
Alpha-Chlordane	99.3		P	80 - 120
Beta-BHC	96.9		P	80 - 120
Beta-Cyfluthrin	111		P	80 - 120
Bifenthrin	130*		F	80 - 120
Chlorothalonil	107		P	80 - 120
Cis-Nonachlor	95.9		P	80 - 120
Cypermethrin	118		P	80 - 120
Dacthal	104		P	80 - 120
DDD-p,p'	112		P	80 - 120
DDE-p,p'	115		P	80 - 120
DDT-p,p'	98.9		P	80 - 120
Delta-BHC	94.7		P	80 - 120
Deltamethrin	101		P	80 - 120
Dichlobenil	98.0		P	80 - 120
Dicofol	95.5		P	80 - 120
Endosulfan I	101		P	80 - 120
Endosulfan II	96.4		P	80 - 120
Endosulfan Sulfate	113		P	80 - 120
Endrin	106		P	80 - 120
Endrin Aldehyde	104		P	80 - 120
Endrin Ketone	102		P	80 - 120
Esfenvalerate	104		P	80 - 120
Ethalfuralin	104		P	80 - 120
Fenpropathrin	116		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A103897
Included Lab Sample IDs: 2227014

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Gamma-BHC	104		P	80 - 120
Gamma-Chlordane	98.5		P	80 - 120
Heptachlor	104		P	80 - 120
Heptachlor Epoxide	100		P	80 - 120
Hexachlorobenzene	97.0		P	80 - 120
Lambda-Cyhalothrin	119		P	80 - 120
Methoxychlor	104		P	80 - 120
MGK-264	121*		F	80 - 120
Mirex	105		P	80 - 120
Permethrin	109		P	80 - 120
Phenothrin	115		P	80 - 120
Piperonyl Butoxide	120		P	80 - 120
Prallethrin	120		P	80 - 120
Tau-Fluvalinate	120		P	80 - 120
Tetramethrin	118		P	80 - 120
Trans-Nonachlor	97.7		P	80 - 120
Triclosan Methyl	99.3		P	80 - 120
Trifluralin	97.4		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A103899
Included Lab Sample IDs: 2227016

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Antimony	103	102	P/P	90 - 110
Arsenic	99.8	99.7	P/P	90 - 110
Beryllium	96.5	96.2	P/P	90 - 110
Cadmium	99.5	98.9	P/P	90 - 110
Copper	97.1	97.8	P/P	90 - 110
Lead	103	102	P/P	90 - 110
Nickel	97.0	96.4	P/P	90 - 110
Selenium	98.9	99.2	P/P	90 - 110
Silver	100	99.8	P/P	90 - 110
Thallium	108	108	P/P	90 - 110

Reference Method: SM 2320 B-2011
Run ID: A103902
Included Lab Sample IDs: 2226988, 2226990

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	94.2	91.5	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Run ID: A103902
Included Lab Sample IDs: 2226988, 2226990

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.0	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8276
Run ID: A103909
Included Lab Sample IDs: 2227014

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	96.9		P	80 - 120
Toxaphene	104		P	80 - 120

Reference Method: EPA 8321B
Run ID: A103914
Included Lab Sample IDs: 2227008

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	111	120	P/P	60 - 160

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A103928
Included Lab Sample IDs: 2227016

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	96.9	93.3	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A103933
Included Lab Sample IDs: 2227014

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	98.7		P	80 - 120
Dieldrin	96.0		P	80 - 120
Kepone	111		P	80 - 120

Reference Method: EPA 8270E
Run ID: A103944
Included Lab Sample IDs: 2227015

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	101		P	80 - 120
Alachlor	102		P	80 - 120
Ametryn	95.2		P	80 - 120
Atrazine	101		P	80 - 120
Atrazine Desethyl	106		P	80 - 120
Azinphos Methyl	98.7		P	80 - 120
Azoxystrobin	109		P	80 - 120
Bromacil	101		P	80 - 120
Butylate	96.0		P	80 - 120
Caffeine	100		P	80 - 120
Carbophenothion	96.3		P	80 - 120
Carfentrazone Ethyl	99.2		P	80 - 120
Chlorpyrifos Ethyl	99.0		P	80 - 120
Chlorpyrifos Methyl	93.8		P	80 - 120
Cyanazine	99.5		P	80 - 120
Demeton	91.8		P	80 - 120
Diazinon	101		P	80 - 120
Difenoconazole	105		P	80 - 120
Dimethenamid	102		P	80 - 120
Disulfoton	95.7		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A103944
Included Lab Sample IDs: 2227015

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Dithiopyr	106		P	80 - 120
EPTC	100		P	80 - 120
Ethion	90.7		P	80 - 120
Ethoprop	96.5		P	80 - 120
Fenamiphos	99.2		P	80 - 120
Fenbuconazole	100		P	80 - 120
Fipronil	101		P	80 - 120
Fipronil Desulfinyl	98.4		P	80 - 120
Fipronil Sulfide	98.2		P	80 - 120
Fipronil Sulfone	98.6		P	80 - 120
Fluazifop-P-butyl	104		P	80 - 120
Fludioxonil	99.5		P	80 - 120
Flumioxazin	99.6		P	80 - 120
Flutolanil	102		P	80 - 120
Fluxapyroxad	105		P	80 - 120
Fonofos	97.0		P	80 - 120
Hexazinone	100		P	80 - 120
Imazalil	102		P	80 - 120
Iprodione	101		P	80 - 120
Malathion	90.7		P	80 - 120
Metalaxyl	103		P	80 - 120
Metolachlor	101		P	80 - 120
Metribuzin	96.9		P	80 - 120
Mevinphos	101		P	80 - 120
Molinate	98.5		P	80 - 120
Myclobutanil	103		P	80 - 120
Naled	109		P	80 - 120
Norflurazon	100		P	80 - 120
Oxadiazon	104		P	80 - 120
Oxyfluorfen	99.0		P	80 - 120
Parathion Ethyl	98.1		P	80 - 120
Parathion Methyl	103		P	80 - 120
Pendimethalin	106		P	80 - 120
Phorate	97.0		P	80 - 120
Prodiamine	100		P	80 - 120
Prometon	96.9		P	80 - 120
Prometryn	95.8		P	80 - 120
Pronamide	96.1		P	80 - 120
Propiconazole	107		P	80 - 120
Pyriproxyfen	103		P	80 - 120
Simazine	107		P	80 - 120
Sulfentrazone	104		P	80 - 120
Tebuconazole	107		P	80 - 120
Terbufos	95.6		P	80 - 120
Terbutylazine	103		P	80 - 120

Reference Method: SM 5310 B-2011
Run ID: A103983
Included Lab Sample IDs: 2226989, 2226991

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

Calibration Verification

Reference Method: SM 5310 B-2011

Run ID: A103983

Included Lab Sample IDs: 2226989, 2226991

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.2	95.6	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 SMP	MS
EPA 180.1 Rev. 2.0	Turbidity						2.68	
EPA 200.7 Rev. 4.4	Calcium	108						3.76
	Chromium	96.9		90.0	92.9			3.11
	Iron	103		92.4	99.2			3.94
	Magnesium	102						2.71
	Manganese	102		95.1	97.7			2.53
	Zinc	106		95.0	98.1			3.23
EPA 200.8 Rev. 5.4	Aluminum	91.6		94.9	95.8			0.990
	Antimony	103		108	108			0.703
	Arsenic	96.7		108	105			2.33
	Beryllium	86.7		96.4	92.6			4.02
	Cadmium	98.6		96.2	94.8			1.46
	Copper	92.9		102	102			0.469
	Lead	104		110	109			0.686
	Nickel	92.2		100	98.7			1.40
	Selenium	95.9		101	99.1			1.85
	Silver	101		96.2	96.0			0.170
	Thallium	108		112	113			0.336
EPA 300.0 Rev. 2.1	Bromide	96.0		95.5	93.9	95.7		1.65
EPA 350.1 Rev. 2.0	Ammonia-N	97.6		96.8	97.8			0.752
	Ammonia-N	99.6		96.0	97.0			0.710
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101						8.45
EPA 353.2 Rev. 2.0	NO2NO3-N	103		102	103			0.487
EPA 365.1 Rev. 2.0	Total-P	105		102	105			3.23
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.4		97.9	97.9			0.0
EPA 8270E	Acetochlor	76.6	78.0	101	79.4	1.77		24.4
	Alachlor	80.2	79.9	96.6	82.4	0.344		15.8
	Aldrin	49.0	52.4	69.3	73.9	6.62		6.43
	Alpha-BHC	94.6	89.8	84.1	87.6	5.23		4.06
	Alpha-Chlordane	82.2	85.6	80.1	77.9	4.12		2.86
	Ametryn	82.5	70.7	150	133	15.4		12.2
	Atrazine	83.4	85.9			2.92		15.4
	Atrazine Desethyl	67.4	74.9	76.3	67.4	10.5		12.5
	Azinphos Methyl	105	105	106	93.0	0.0916		13.2
	Azoxystrobin	117	110	117	93.7	6.74		21.9
	Beta-BHC	90.2	96.3	74.8	70.8	6.45		5.51
	Beta-Cyfluthrin	119	114	137	138	4.22		0.515
	Bifenthrin	119	118	130	132	0.841		1.03
	Bromacil	66.1	59.4	85.9	63.8	10.7		29.6
	Butylate	54.6	52.6	61.5	48.4	3.57		23.9
	Caffeine	112	107	131	104	4.43		22.4
	Carbophenothion	78.9	78.9	83.0	69.3	0.0606		18.0
	Carfentrazone Ethyl	72.3	79.3	84.5	60.8	9.19		32.5
	Chlorothalonil	86.5	88.0	90.0	74.3	1.74		19.2
	Chlorpyrifos Ethyl	72.0	69.3	82.5	71.4	3.88		14.3
	Chlorpyrifos Methyl	75.0	76.9	88.8	75.4	2.61		16.4
	Cis-Nonachlor	83.1	86.3	78.6	79.4	3.82		0.941
	Cyanazine	84.2	88.7	91.8	78.6	5.23		15.5
	Cypermethrin	122	118	137	141	3.16		3.46
	Dacthal	92.0	97.1	90.8	88.5	5.42		2.60
	DDD-p,p'	100	105	98.9	97.2	4.23		1.76
	DDE-p,p'	93.3	97.8	91.4	89.4	4.69		2.18
	DDT-p,p'	86.4	84.3	84.4	92.5	2.52		9.25
	Delta-BHC	102	108	149	154	5.77		3.51

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Deltamethrin	105	108	122	133	2.73	8.46
	Demeton	74.3	71.0	103	89.4	4.52	14.4
	Diazinon	75.0	76.7	99.5	80.2	2.20	21.4
	Dichlobenil	73.8	78.2	83.5	94.9	5.84	12.8
	Dicofol	104	103	98.5	107	1.05	7.97
	Dieldrin	76.4	73.9	77.6	83.9	3.31	7.79
	Difenoconazole	113	115	131	111	2.13	17.0
	Dimethenamid	78.0	79.6	98.2	78.9	2.02	21.8
	Disulfoton	73.0	72.2	83.1	67.2	1.05	21.1
	Dithiopyr	72.3	71.1	94.4	76.8	1.59	20.6
	Endosulfan I	93.5	93.8	91.6	87.1	0.262	4.96
	Endosulfan II	83.2	83.2	169	174	0.0158	2.78
	Endosulfan Sulfate	110	113	114	111	2.69	2.60
	Endrin	106	104	94.8	91.8	1.54	3.23
	Endrin Aldehyde	90.9	76.6	72.3	59.5	17.1	19.4
	Endrin Ketone	99.2	98.0	94.0	97.6	1.22	3.70
	EPTC	50.7	49.9	55.6	47.3	1.66	16.3
	Esfenvalerate	108	115	122	126	5.52	3.58
	Ethalfuralin	87.7	87.5	83.7	87.7	0.245	4.65
	Ethion	64.7	61.3	60.9	55.9	5.32	8.59
	Ethoprop	74.6	74.3	88.1	74.3	0.438	17.1
	Fenamiphos	78.9	73.1	99.4	82.8	7.70	18.3
	Fenbuconazole	81.4	77.9	96.9	80.9	4.32	18.0
	Fenpropathrin	130	131	190	198	0.730	4.05
	Fipronil	78.4	74.7	90.3	76.5	4.87	16.6
	Fipronil Desulfinyl	73.8	71.9	83.8	67.5	2.55	19.3
	Fipronil Sulfide	70.8	68.3	65.0	58.8	3.61	8.18
	Fipronil Sulfone	70.1	68.6	78.4	60.3	2.07	14.6
	Fluazifop-P-butyl	79.5	77.9	90.1	74.7	1.94	18.7
	Fludioxonil	69.7	67.0	88.0	75.0	3.98	15.9
	Flumioxazin	120	122	145	126	1.57	14.4
	Flutolanil	73.3	71.0	79.1	66.4	3.14	15.9
	Fluxapyroxad	73.8	70.9	75.8	67.7	4.10	9.22
	Fonofos	77.7	73.6	87.0	73.0	5.42	17.5
	Gamma-BHC	98.5	101	124	133	2.15	7.09
	Gamma-Chlordane	79.7	83.1	78.3	77.2	4.13	1.41
	Heptachlor	73.0	78.2	76.1	72.1	6.91	5.44
	Heptachlor Epoxide	85.3	89.9	82.4	80.4	5.25	2.53
	Hexachlorobenzene	81.0	81.2	65.3	76.1	0.331	15.3
	Hexazinone	74.5	75.0			0.628	12.6
	Imazalil	86.8	84.6	128	109	2.62	16.1
	Iprodione	72.5	71.3	79.3	67.3	1.65	16.4
	Kepone	107	113	110	109	5.76	0.281
	Lambda-Cyhalothrin	117	118	132	135	0.843	2.15
	Malathion	83.8	81.6	93.1	81.0	2.67	13.9
	Metalaxyl	79.2	75.1	89.9	78.0	5.21	14.2
	Methoxychlor	97.7	99.9	98.5	100	2.23	1.69
	Metolachlor	76.2	73.7	96.4	77.2	3.28	22.0
	Metribuzin	86.7	79.2	126	89.0	9.03	34.8
	Mevinphos	74.7	77.5	87.0	74.5	3.58	15.4
	MGK-264	88.4	86.7	95.1	92.1	1.93	3.13
	Mirex	84.1	82.2	86.2	86.9	2.24	0.841
	Molinate	63.0	63.1	71.3	58.5	0.246	19.7
	Myclobutanil	72.4	71.2	92.8	78.9	1.71	16.1

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Naled	56.1	56.6	72.8	61.3	0.809	17.1
	Norflurazon	69.6	72.5	75.8	63.9	4.07	17.1
	Oxadiazon	74.2	72.4	91.6	65.2	2.36	17.3
	Oxyfluorfen	88.6	87.0	111	89.9	1.81	21.1
	Parathion Ethyl	78.5	80.7	93.6	76.7	2.80	19.8
	Parathion Methyl	87.4	80.6	96.4	85.1	8.07	12.4
	Pendimethalin	79.9	77.4	98.6	80.5	3.17	20.3
	Permethrin	101	102	112	111	0.487	0.397
	Phenothrin	82.9	83.0	97.1	101	0.103	3.57
	Phorate	85.3	92.4	93.7	76.4	7.94	20.3
	Piperonyl Butoxide	129	129	136	146	0.407	7.13
	Prallethrin	84.7	92.1	88.4	94.3	8.31	6.45
	Prodiamine	44.0	44.9	68.0	56.0	1.98	19.3
	Prometon	73.8	75.0	87.7	79.5	1.62	9.77
	Prometryn	80.0	73.7	89.6	77.7	8.23	14.1
	Pronamide	87.7	84.9	122	103	3.23	16.8
	Propiconazole	70.9	70.6	81.6	65.1	0.444	18.9
	Pyriproxyfen	73.3	74.4	63.9	54.0	1.50	16.9
	Simazine	82.2	79.7	128	116	3.16	9.87
	Sulfentrazone	72.2	72.9	83.2	60.3	0.960	18.1
	Tau-Fluvalinate	128	131	144	155	2.31	6.86
	Tebuconazole	51.4	48.6	54.6	46.0	5.63	17.1
	Terbufos	74.0	70.9	88.7	74.0	4.38	18.1
	Terbutylazine	81.4	82.7	98.9	83.0	1.56	17.5
	Tetramethrin	102	101	134	140	0.310	3.97
	Trans-Nonachlor	80.8	84.8	80.2	78.0	4.76	2.83
	Triclosan Methyl	98.8	106	98.8	97.5	6.97	1.34
	Trifluralin	82.1	82.9	81.3	80.3	0.936	1.20
EPA 8276	Chlordane	106	107	101	103	1.02	1.25
	Toxaphene	112	110	135	134	1.78	0.781
EPA 8321B	2,4-D	114		91.2	81.8		9.45
	2,4,5-T	87.1		77.4	73.4		5.39
	3-Hydroxycarbofuran	79.9		102	91.4		10.6
	Acesulfame K	75.2		49.0	51.8		5.71
	Acetaminophen	76.0		94.8	94.8		0.0035
	Acetamiprid	81.0		91.2	103		12.0
	Afidopyropen	51.2		74.9	77.0		2.82
	Aldicarb	70.4		76.0	61.9		20.5
	Aldicarb Sulfone	102		119	110		7.89
	Aldicarb Sulfoxide	111		41.0	43.8		6.68
	AMPA	87.0		101	105		3.97
	Bentazon	64.0					15.4
	Benzovindiflupyr	77.1		72.0	71.1		1.35
	Carbamazepine	104					1.80
	Carbaryl	68.7		57.8	51.0		12.4
	Carbofuran	70.2		54.3	51.8		4.64
	Clothianidin	99.3		101	88.7		12.4
	Dinotefuran	85.4		114	113		0.775
	Diuron	70.1		53.6	50.8		4.40
	Endothall	104		101	106		5.33
	Fenuron	107		74.0	64.4		13.9
	Fluridone	88.3		48.9	74.1		26.5
	Glufosinate	98.5		104	110		5.82
	Glyphosate	150		126	132		3.81

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Hydrocodone	103	100	94.1		6.38
	Ibuprofen	71.4	51.7	62.0		18.1
	Imazapyr	81.8	81.8	64.3		10.5
	Imidacloprid	104	138	139		0.158
	Linuron	74.2	53.8	53.9		0.228
	Mandestrobin	84.6	78.3	81.7		4.30
	MCCP	95.8	78.5	81.6		3.90
	Methiocarb	63.4	68.0	58.7		14.5
	Methomyl	85.6	85.3	72.8		15.9
	Naproxen	49.5	58.9	54.8		7.23
	Oxamyl	97.8	97.0	92.2		5.07
	Primidone	101	92.1	82.5		7.28
	Propoxur	69.9	55.9	54.9		1.82
	Pyraclostrobin	80.5	79.5	79.8		0.409
	Sucralose	117	102	102		0.0536
	Thiamethoxam	99.4	116	112		4.03
	Tolfenpyrad	52.0	58.4	61.7		5.54
	Triclopyr	82.9	76.0	80.8		6.03
SM 2320 B-2011	Total Alkalinity	93.6			0.101	
SM 4500 F-C-2011	Fluoride	97.1				0.0
SM 5310 B-2011	Organic Carbon	94.8	94.5	93.2		0.998

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2226988, 2226990
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2227016
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2227016
EPA 300.0 Rev. 2.1	Bromide in aqueous matrices	2226988, 2226990
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2226989, 2226991
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2226989, 2226991
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2226989, 2226991
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2226989, 2226991
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2226992, 2227056
EPA 8270E	Dieldrin (ultra low level) in water matrices by GC/MS/MS	2227014
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS-SIM	2227014
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2227015
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2227014
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2227007
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2227008
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2227008
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2226988, 2226990
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2226988, 2226990
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2226988, 2226990
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2226989, 2226991

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	02/24/2021			02/24/2021 15:17	Yen Ta	2226988, 2226990
EPA 200.7 Rev. 4.4	02/24/2021	02/25/2021 16:10	Elliott D. Healy	03/01/2021 14:33	Betina Topolski	2227016
EPA 200.8 Rev. 5.4	02/24/2021	02/25/2021 16:10	Elliott D. Healy	03/04/2021 21:17	Alexander Thompson	2227016
	02/24/2021	02/25/2021 16:10	Elliott D. Healy	03/05/2021 16:57	Alexander Thompson	2227016
EPA 300.0 Rev. 2.1	02/24/2021			02/26/2021 13:19	Lipi Saha	2226988
	02/24/2021			02/26/2021 18:09	Lipi Saha	2226990
EPA 350.1 Rev. 2.0	02/24/2021			02/28/2021 12:35	Ping Hua	2226989
	02/24/2021			03/01/2021 18:09	Ping Hua	2226991
EPA 351.2 Rev. 2.0	02/24/2021	02/25/2021 12:00	Yen Ta	02/26/2021 13:47	Virginia P. Brown	2226989
	02/24/2021	02/25/2021 12:00	Yen Ta	02/26/2021 13:52	Virginia P. Brown	2226991
EPA 353.2 Rev. 2.0	02/24/2021			02/25/2021 09:47	Beverly Y. Sanders	2226989
	02/24/2021			02/25/2021 09:49	Beverly Y. Sanders	2226991
EPA 365.1 Rev. 2.0	02/24/2021	02/26/2021 11:49	Shengyu Wang	03/01/2021 13:47	Shengyu Wang	2226989
	02/24/2021	02/26/2021 11:49	Shengyu Wang	03/01/2021 14:30	Shengyu Wang	2226991
EPA 365.1 Rev. 2.0 dissolved	02/24/2021			02/24/2021 15:38	Samantha Davila	2226992
	02/24/2021			02/24/2021 15:45	Samantha Davila	2227056
EPA 8270E	02/24/2021	02/26/2021 08:30	Rasheda Ghaffari	03/01/2021 16:02	Vandana T. Nagar	2227015
	02/24/2021	03/01/2021 08:30	Rasheda Ghaffari	03/03/2021 19:16	Michael Poppell	2227014
	02/24/2021	03/01/2021 08:30	Rasheda Ghaffari	03/07/2021 22:06	Arthur Maknenko	2227014
EPA 8276	02/24/2021	03/01/2021 08:30	Rasheda Ghaffari	03/04/2021 02:28	Julie Wi	2227014
EPA 8321B	02/24/2021	02/24/2021 13:00	Rebecca Ware	02/24/2021 17:59	Rebecca Ware	2227008
	02/24/2021	02/24/2021 13:00	Rebecca Ware	03/04/2021 19:50	Rebecca Ware	2227008
	02/24/2021	02/24/2021 15:00	Hoor Shaik	02/24/2021 22:43	Juyoung Kim	2227007
	02/24/2021	02/24/2021 15:00	Hoor Shaik	02/25/2021 04:30	Juyoung Kim	2227008
SM 2320 B-2011	02/24/2021			03/04/2021 01:42	Dale L. Simmons	2226988
	02/24/2021			03/04/2021 01:56	Dale L. Simmons	2226990
SM 2540 D-2011	02/24/2021			02/26/2021 14:36	Yijie Li	2226988, 2226990
SM 4500 F-C-2011	02/24/2021			03/04/2021 01:42	Dale L. Simmons	2226988
	02/24/2021			03/04/2021 01:56	Dale L. Simmons	2226990
SM 5310 B-2011	02/24/2021			03/10/2021 01:10	Madeline Gruver	2226989
	02/24/2021			03/10/2021 01:20	Madeline Gruver	2226991