

Chemical Analysis Report

SE-DIST-2021-06-02-02

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

Event Description: **SMP - Stuart Boat addition 3211 June**

Request ID: **RQ-2021-05-31-42**

Customer: **SE-DIST**

Project ID: **SMP**

Send Reports to:

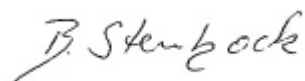
FL Dept. of Environmental Protection
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Attn: Drew Liddick

For additional information please contact

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Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator

Date Certified: 28-JUN-2021 14:54



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: Bessey Creek @ Mouth

Collection Date/Time: 06/01/2021 14:00

Field ID: G2SE0048

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2251426	EPA 180.1 Rev. 2.0	Turbidity	5.8		NTU	P399115	
	SM 2320 B-2011	Total Alkalinity	143		mg CaCO3/L	P399280	
	SM 2540 D-2011	TSS	13		mg/L	P399318	
	SM 4500 F-C-2011	Fluoride	0.80		mg F/L	P399274	
2251427	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P399516	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.95		mg N/L	P399151	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P399134	
	EPA 365.1 Rev. 2.0	Total-P	0.23		mg P/L	P399540	
	SM 5310 B-2011	Organic Carbon	13		mg C/L	P399731	
2251428	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.14		mg P/L	P399122	
2251431	EPA 8321B	Aldicarb	0.020	U	ug/L	P399077	RPD
		Aldicarb Sulfone	0.0020	U	ug/L	P399077	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P399077	
		Carbaryl	0.0020	U	ug/L	P399077	
		Carbofuran	0.0020	U	ug/L	P399077	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P399077	
		Methiocarb	0.0020	U	ug/L	P399077	
		Methomyl	0.0020	U	ug/L	P399077	
		Oxamyl	0.0020	U	ug/L	P399077	
		Propoxur	0.0020	U	ug/L	P399077	
2251432		Acesulfame K	0.10	U	ug/L	P399017	
		2,4-D	0.018		ug/L	P399076	
		AMPA	1.0	U	ug/L	P399017	
		2,4,5-T	0.0040	U	ug/L	P399076	
		Sucralose	0.23		ug/L	P399017	MS
		Acetaminophen	0.011	I	ug/L	P399076	
		Endothall	0.25	U	ug/L	P399017	
		Acetamiprid	0.0020	U	ug/L	P399076	
		Glufosinate	1.0	U	ug/L	P399017	
		Glyphosate	1.0	U	ug/L	P399017	
		Afidopyropen	0.0020	U	ug/L	P399076	
		Bentazon	0.024		ug/L	P399076	
		Benzovindiflupyr	0.0020	U	ug/L	P399076	
		Carbamazepine	0.0010	I	ug/L	P399076	
		Clothianidin	0.0020	U	ug/L	P399076	
		Dinotefuran	0.0020	U	ug/L	P399076	
		Diuron	0.067		ug/L	P399076	
		Fenuron	0.016	U	ug/L	P399076	
		Fluridone	0.0048		ug/L	P399076	
		Imazapyr	0.062		ug/L	P399076	
		Hydrocodone	0.0020	U	ug/L	P399076	
		Ibuprofen	0.020	U	ug/L	P399076	
		Imidacloprid	0.0041	I	ug/L	P399076	

Field ID: G2SE0048

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2251432	EPA 8321B	Linuron	0.0040	U	ug/L	P399076	
		Mandestrobin	0.0020	U	ug/L	P399076	
		MCPP	0.0020	U	ug/L	P399076	
		Naproxen	0.0080	U	ug/L	P399076	
		Primidone	0.0040	U	ug/L	P399076	
		Pyraclostrobin	0.0020	U	ug/L	P399076	
		Thiamethoxam	0.0020	U	ug/L	P399076	
		Tolfenpyrad	0.0020	U	ug/L	P399076	
		Triclopyr	0.0040	U	ug/L	P399076	
2251433	EPA 8270E	Aldrin	0.69	U	ng/L	P399210	
		Alpha-BHC	0.11	U	ng/L	P399210	
		Alpha-Chlordane	0.21	U	ng/L	P399210	
		Beta-BHC	0.11	U	ng/L	P399210	
		Beta-Cyfluthrin**	1.3	U	ng/L	P399210	
		Bifenthrin**	0.53	U	ng/L	P399210	
		Chlorothalonil	0.53	U	ng/L	P399210	
		Cis-Nonachlor**	0.21	U	ng/L	P399210	
		Cypermethrin	1.6	U	ng/L	P399210	
		Dacthal**	0.16	U	ng/L	P399210	
		DDD-p,p'	0.26	U	ng/L	P399210	
		DDE-p,p'	0.21	U	ng/L	P399210	
		DDT-p,p'	0.26	U	ng/L	P399210	
		Delta-BHC	0.42	U	ng/L	P399210	
		Deltamethrin**	1.3	U	ng/L	P399210	MS
		Dichlobenil**	0.11	U	ng/L	P399210	MS
		Dicofol	1.3	U	ng/L	P399210	
		Dieldrin	1.3	I	ng/L	P399210	RPD
		Endosulfan I	0.42	U	ng/L	P399210	
		Endosulfan II	0.42	U	ng/L	P399210	
		Endosulfan Sulfate	0.32	U	ng/L	P399210	
		Endrin	0.42	U	ng/L	P399210	
		Endrin Aldehyde	0.79	U	ng/L	P399210	MS
		Endrin Ketone	0.42	U	ng/L	P399210	
		Esfenvalerate**	0.79	U	ng/L	P399210	
		Ethalfuralin**	0.16	U	ng/L	P399210	
		Fenpropathrin**	0.26	U	ng/L	P399210	
		Gamma-BHC	0.13	U	ng/L	P399210	
		Gamma-Chlordane	0.21	U	ng/L	P399210	
		Heptachlor	0.21	U	ng/L	P399210	
		Heptachlor Epoxide	0.26	U	ng/L	P399210	
		Hexachlorobenzene	1.1	U	ng/L	P399210	
		Kepone**	5.3	U	ng/L	P399210	
		Lambda-Cyhalothrin**	1.5	I	ng/L	P399210	
		Methoxychlor	0.32	U	ng/L	P399210	
		MGK-264**	0.21	U	ng/L	P399210	

Field ID: G2SE0048

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2251433	EPA 8270E	Mirex	0.32	U	ng/L	P399210	
		Permethrin	1.7	U	ng/L	P399210	
		Phenothrin**	0.95	U	ng/L	P399210	
		Piperonyl Butoxide**	0.16	U	ng/L	P399210	
		Prallethrin**	2.1	U	ng/L	P399210	
		Tau-Fluvalinate**	0.26	U	ng/L	P399210	
		Tetramethrin**	0.79	U	ng/L	P399210	
		Trans-Nonachlor**	0.21	U	ng/L	P399210	
		Triclosan Methyl**	0.16	U	ng/L	P399210	
		Trifluralin	0.21	U	ng/L	P399210	
2251434	EPA 8270E	Chlordane	5.3	U	ng/L	P399210	
		Toxaphene	32	U	ng/L	P399210	
		Acetochlor	0.24	U	ng/L	P399205	
		Alachlor	0.24	U	ng/L	P399205	
		Ametryn	6.4		ng/L	P399205	
		Atrazine	77		ng/L	P399205	
		Atrazine Desethyl	29		ng/L	P399205	
		Azinphos Methyl	1.9	U	ng/L	P399205	MS
		Azoxystrobin**	0.48	U	ng/L	P399205	RPD
		Bromacil	3.2		ng/L	P399205	
		Butylate	0.38	U	ng/L	P399205	
		Caffeine**	7.2	U	ng/L	P399205	
		Carbophenothion	0.48	U	ng/L	P399205	
		Carfentrazone Ethyl**	0.096	U	ng/L	P399205	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P399205	
		Chlorpyrifos Methyl	0.048	U	ng/L	P399205	
		Cyanazine	3.1	U	ng/L	P399205	
		Demeton	1.4	U	ng/L	P399205	
		Diazinon	0.12	U	ng/L	P399205	
		Difenoconazole**	0.58	U	ng/L	P399205	
		Dimethenamid**	0.096	U	ng/L	P399205	
		Disulfoton	0.48	U	ng/L	P399205	
		Dithiopyr**	0.17	U	ng/L	P399205	
		EPTC	1.2	U	ng/L	P399205	
		Ethion	0.14	U	ng/L	P399205	
		Ethoprop	0.096	U	ng/L	P399205	
		Fenamiphos	0.48	U	ng/L	P399205	
		Fenbuconazole**	0.15	I	ng/L	P399205	
		Fipronil	0.24	U	ng/L	P399205	
		Fipronil Desulfinyl**	0.25	I	ng/L	P399205	
		Fipronil Sulfide	0.14	U	ng/L	P399205	
		Fipronil Sulfone	0.27	I	ng/L	P399205	
		Fluazifop-P-butyl**	0.096	U	ng/L	P399205	
		Fludioxonil**	0.12	U	ng/L	P399205	
		Flumioxazin**	1.7	U	ng/L	P399205	

Field ID: G2SE0048

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2251434	EPA 8270E	Flutolanil**	0.11	I	ng/L	P399205	
		Fluxapyroxad**	0.59		ng/L	P399205	
		Fonofos	0.19	U	ng/L	P399205	
		Hexazinone	11		ng/L	P399205	
		Imazalil**	0.72	U	ng/L	P399205	
		Iprodione**	0.58	U	ng/L	P399205	
		Malathion	0.34	U	ng/L	P399205	
		Metalaxyl	2.9		ng/L	P399205	
		Metolachlor	33		ng/L	P399205	
		Metribuzin	3.1	U	ng/L	P399205	
		Mevinphos	1.0	U	ng/L	P399205	
		Molinate	0.29	U	ng/L	P399205	
		Myclobutanil**	0.41	I	ng/L	P399205	
		Naled**	1.4	U	ng/L	P399205	
		Norflurazon	7.3		ng/L	P399205	
		Oxadiazon	2.9		ng/L	P399205	
		Oxyfluorfen**	0.14	U	ng/L	P399205	
		Parathion Ethyl	0.24	U	ng/L	P399205	
		Parathion Methyl	0.53	U	ng/L	P399205	
		Pendimethalin	0.96	U	ng/L	P399205	
		Phorate	0.50	U	ng/L	P399205	
		Prodiamine**	0.17	U	ng/L	P399205	
		Prometon	0.86	U	ng/L	P399205	
		Prometryn	0.19	U	ng/L	P399205	
		Pronamide**	0.14	U	ng/L	P399205	
		Propiconazole**	4.2		ng/L	P399205	
		Pyriproxyfen**	0.12	U	ng/L	P399205	
		Simazine	0.48	U	ng/L	P399205	
		Sulfentrazone**	12		ng/L	P399205	
		Tebuconazole**	0.86	I	ng/L	P399205	
		Terbufos	0.096	U	ng/L	P399205	
		Terbuthylazine	0.41	U	ng/L	P399205	
2251445	EPA 200.7 Rev. 4.4	Calcium	281		mg/L	P399094	
		Chromium	3.1	I	ug/L	P399094	
		Iron	90	U	ug/L	P399094	
		Magnesium	765		mg/L	P399094	
		Manganese	21		ug/L	P399094	
		Zinc	15	U	ug/L	P399094	
	EPA 200.8 Rev. 5.4	Aluminum	70	I	ug/L	P399094	
		Antimony	0.20	U	ug/L	P399094	
		Arsenic	3.82		ug/L	P399094	
		Beryllium	0.040	U	ug/L	P399094	
		Cadmium	0.080	U	ug/L	P399094	
		Copper	1.6	U	ug/L	P399094	
		Lead	0.80	U	ug/L	P399094	

Field ID: G2SE0048

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2251445	EPA 200.8 Rev. 5.4	Nickel	2.0	U	ug/L	P399094	
		Selenium	0.80	U	ug/L	P399094	
		Silver	0.040	U	ug/L	P399094	
		Thallium	0.40	U	ug/L	P399094	

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8321B: MDL for some parameters elevated due to matrix interference.
EPA 8270E: MS accuracy for atrazine and caffeine 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: FB

Collection Date/Time: 06/01/2021 14:10

Field ID: FB_06012021

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2251435	EPA 8270E	Aldrin	0.68	U	ng/L	P399210	
		Alpha-BHC	0.11	U	ng/L	P399210	
		Alpha-Chlordane	0.21	U	ng/L	P399210	
		Beta-BHC	0.11	U	ng/L	P399210	
		Beta-Cyfluthrin**	1.3	U	ng/L	P399210	
		Bifenthrin**	0.53	U	ng/L	P399210	
		Carbophenothion	0.37	U	ng/L	P399210	
		Chlorothalonil	0.53	U	ng/L	P399210	
		Cis-Nonachlor**	0.21	U	ng/L	P399210	
		Cypermethrin	1.6	U	ng/L	P399210	
		Dacthal**	0.16	U	ng/L	P399210	
		DDD-p,p'	0.26	U	ng/L	P399210	
		DDE-p,p'	0.21	U	ng/L	P399210	
		DDT-p,p'	0.26	U	ng/L	P399210	
		Delta-BHC	0.42	U	ng/L	P399210	
		Deltamethrin**	1.3	U	ng/L	P399210	MS
		Dichlobenil**	0.11	U	ng/L	P399210	MS
		Dicofol	1.3	U	ng/L	P399210	
		Dieldrin	0.42	U	ng/L	P399210	RPD
		Endosulfan I	0.42	U	ng/L	P399210	
		Endosulfan II	0.42	U	ng/L	P399210	
		Endosulfan Sulfate	0.32	U	ng/L	P399210	
		Endrin	0.42	U	ng/L	P399210	
		Endrin Aldehyde	0.79	U	ng/L	P399210	MS
		Endrin Ketone	0.42	U	ng/L	P399210	
		Esfenvalerate**	0.79	U	ng/L	P399210	
		Ethalfuralin**	0.16	U	ng/L	P399210	
		Fenpropathrin**	0.26	U	ng/L	P399210	
		Gamma-BHC	0.13	U	ng/L	P399210	
		Gamma-Chlordane	0.21	U	ng/L	P399210	
		Heptachlor	0.21	U	ng/L	P399210	
		Heptachlor Epoxide	0.26	U	ng/L	P399210	
		Hexachlorobenzene	1.1	U	ng/L	P399210	
		Kepone**	5.3	U	ng/L	P399210	
		Lambda-Cyhalothrin**	0.79	U	ng/L	P399210	
		Methoxychlor	0.32	U	ng/L	P399210	
		MGK-264**	0.21	U	ng/L	P399210	
		Mirex	0.32	U	ng/L	P399210	
		Permethrin	1.7	U	ng/L	P399210	
		Phenothrin**	0.95	U	ng/L	P399210	
		Piperonyl Butoxide**	0.16	U	ng/L	P399210	
		Prallethrin**	2.1	U	ng/L	P399210	
		Tau-Fluvalinate**	0.26	U	ng/L	P399210	
		Tetramethrin**	0.79	U	ng/L	P399210	

Field ID: FB_06012021

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2251435	EPA 8270E	Trans-Nonachlor**	0.21	U	ng/L	P399210	
		Triclosan Methyl**	0.16	U	ng/L	P399210	
		Trifluralin	0.21	U	ng/L	P399210	

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P399115

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P399094

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	5.6	I	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P399094

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 350.1 Rev. 2.0
Batch ID: P399516

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P399151

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P399134

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P399540

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P399122

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

Reference Method: EPA 8270E
Batch ID: P399205

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azoxystrobin	0.50	U	ng/L
Azoxystrobin	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Butylate	0.40	U	ng/L
Caffeine	7.5	U	ng/L
Caffeine	7.5	U	ng/L
Carbophenothion	0.50	U	ng/L
Carbophenothion	0.50	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Cyanazine	3.2	U	ng/L
Cyanazine	3.2	U	ng/L
Demeton	1.5	U	ng/L
Demeton	1.5	U	ng/L
Diazinon	0.12	U	ng/L
Diazinon	0.12	U	ng/L
Difenoconazole	0.60	U	ng/L
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethenamid	0.10	U	ng/L
Disulfoton	0.50	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.18	U	ng/L
Dithiopyr	0.18	U	ng/L
EPTC	1.2	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethion	0.15	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P399205

Component	Result	Code	Units
Ethoprop	0.10	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.12	U	ng/L
Fludioxonil	0.12	U	ng/L
Flumioxazin	1.8	U	ng/L
Flumioxazin	1.8	U	ng/L
Flutolanil	0.10	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fonofos	0.20	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.75	U	ng/L
Imazalil	0.75	U	ng/L
Iprodione	0.60	U	ng/L
Iprodione	0.60	U	ng/L
Malathion	0.35	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.75	U	ng/L
Metalaxyl	0.75	U	ng/L
Metolachlor	0.35	U	ng/L
Metolachlor	0.35	U	ng/L
Metribuzin	3.2	U	ng/L
Metribuzin	3.2	U	ng/L
Mevinphos	1.0	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.30	U	ng/L
Molinate	0.30	U	ng/L
Myclobutanil	0.25	U	ng/L
Myclobutanil	0.25	U	ng/L
Naled	1.5	U	ng/L
Naled	1.5	U	ng/L
Norflurazon	0.50	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxadiazon	0.30	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P399205

Component	Result	Code	Units
Oxyfluorfen	0.15	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.52	U	ng/L
Phorate	0.52	U	ng/L
Prodiamine	0.18	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Prometryn	0.20	U	ng/L
Pronamide	0.15	U	ng/L
Pronamide	0.15	U	ng/L
Propiconazole	0.50	U	ng/L
Propiconazole	0.50	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Simazine	0.50	U	ng/L
Simazine	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbufos	0.10	U	ng/L
Terbutylazine	0.42	U	ng/L
Terbutylazine	0.42	U	ng/L

Reference Method: EPA 8270E

Batch ID: P399210

Component	Result	Code	Units
Aldrin	0.65	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Bifenthrin	0.50	U	ng/L
Carbophenothion	0.35	U	ng/L
Chlorothalonil	0.50	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cypermethrin	1.5	U	ng/L
Dacthal	0.15	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDT-p,p'	0.25	U	ng/L
Delta-BHC	0.40	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P399210

Component	Result	Code	Units
Deltamethrin	1.2	U	ng/L
Dichlobenil	0.10	U	ng/L
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.40	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Ketone	0.40	U	ng/L
Esfenvalerate	0.75	U	ng/L
Ethalfuralin	0.15	U	ng/L
Fenpropathrin	0.25	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Kepone	5.0	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Methoxychlor	0.30	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.30	U	ng/L
Permethrin	1.6	U	ng/L
Phenothrin	0.90	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Prallethrin	2.0	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tetramethrin	0.75	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Trifluralin	0.20	U	ng/L

Reference Method: EPA 8276

Batch ID: P399210

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

Reference Method: EPA 8321B

Batch ID: P399017

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B

Batch ID: P399076

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B

Batch ID: P399077

Component	Result	Code	Units
3-Hydroxycarbofuran	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
Carbaryl	0.0020	U	ug/L
Carbofuran	0.0020	U	ug/L
Methiocarb	0.0020	U	ug/L
Methomyl	0.0020	U	ug/L
Oxamyl	0.0020	U	ug/L
Propoxur	0.0020	U	ug/L

Reference Method: SM 2320 B-2011

Batch ID: P399280

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

Reference Method: SM 2540 D-2011

Batch ID: P399318

Component	Result	Code	Units
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Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 D-2011
Batch ID: P399318

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P399274

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P399731

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: P399094

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	107		P	85 - 115
Chromium	93.1		P	85 - 115
Iron	103		P	85 - 115
Magnesium	103		P	85 - 115
Manganese	98.3		P	85 - 115
Zinc	93.5		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P399094

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	100		P	85 - 115
Antimony	103		P	85 - 115
Arsenic	103		P	85 - 115
Beryllium	93.3		P	85 - 115
Cadmium	104		P	85 - 115
Copper	101		P	85 - 115
Lead	105		P	85 - 115
Nickel	101		P	85 - 115
Selenium	101		P	85 - 115
Silver	105		P	85 - 115
Thallium	106		P	85 - 115

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P399516

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

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P399151

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

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P399134

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

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P399540

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P399122

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P399205

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	86.7	91.5	P/P	70 - 121
Alachlor	85.2	89.1	P/P	70 - 119
Ametryn	103	105	P/P	61 - 135
Atrazine	91.0	95.8	P/P	76 - 123
Atrazine Desethyl	75.3	97.5	P/P	35 - 140
Azinphos Methyl	117	115	P/P	57 - 163
Azoxystrobin	122	151	P/P	43 - 231
Bromacil	77.7	86.1	P/P	42 - 123
Butylate	49.7	57.9	P/P	34 - 92.0
Caffeine	94.0	86.6	P/P	70 - 130
Carbophenothion	106	106	P/P	61 - 121
Carfentrazone Ethyl	113	122	P/P	62 - 139
Chlorpyrifos Ethyl	92.3	85.6	P/P	67 - 121
Chlorpyrifos Methyl	88.7	85.3	P/P	67 - 120
Cyanazine	175	177	P/P	20 - 226
Demeton	84.1	86.0	P/P	35 - 125
Diazinon	84.3	87.4	P/P	70 - 122
Difenoconazole	112	120	P/P	56 - 186
Dimethenamid	83.0	86.3	P/P	67 - 119
Disulfoton	88.1	86.9	P/P	47 - 120
Dithiopyr	77.4	83.2	P/P	67 - 118
EPTC	44.2	52.2	P/P	33 - 90.0
Ethion	90.1	70.2	P/P	40 - 133
Ethoprop	97.5	101	P/P	61 - 121
Fenamiphos	115	116	P/P	31 - 139
Fenbuconazole	86.3	91.3	P/P	66 - 141
Fipronil	77.1	91.9	P/P	62 - 129
Fipronil Desulfinyl	82.6	85.9	P/P	59 - 126
Fipronil Sulfide	83.7	92.2	P/P	63 - 117
Fipronil Sulfone	96.0	88.8	P/P	57 - 117
Fluazifop-P-butyl	105	117	P/P	63 - 124
Fludioxonil	92.3	92.7	P/P	63 - 123
Flumioxazin	97.7	118	P/P	34 - 245
Flutolanil	99.6	109	P/P	56 - 131
Fluxapyroxad	86.6	89.7	P/P	57 - 117
Fonofos	91.1	92.5	P/P	61 - 116
Hexazinone	92.1	98.0	P/P	55 - 138
Imazalil	101	103	P/P	33 - 143
Iprodione	78.4	92.4	P/P	59 - 118
Malathion	100	101	P/P	62 - 138
Metalaxyl	94.4	93.7	P/P	24 - 147
Metolachlor	87.8	91.9	P/P	68 - 118
Metribuzin	81.7	91.5	P/P	20 - 239
Mevinphos	88.7	94.9	P/P	46 - 124
Molinate	65.6	71.8	P/P	46 - 100
Myclobutanil	96.6	102	P/P	32 - 149
Naled	32.0	37.8	P/P	32 - 95.0
Norflurazon	90.8	109	P/P	57 - 127
Oxadiazon	96.7	105	P/P	63 - 118
Oxyfluorfen	93.9	102	P/P	69 - 137
Parathion Ethyl	84.8	88.5	P/P	70 - 113
Parathion Methyl	80.9	97.1	P/P	71 - 130

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P399205

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Pendimethalin	74.4	80.7	P/P	55 - 118
Phorate	106	104	P/P	46 - 125
Prodiamine	45.4	48.3	P/P	20 - 141
Prometon	87.7	96.4	P/P	54 - 122
Prometryn	98.0	100	P/P	66 - 124
Pronamide	89.6	92.6	P/P	79 - 122
Propiconazole	105	124	P/P	61 - 126
Pyriproxyfen	81.1	84.5	P/P	52 - 131
Simazine	84.2	93.3	P/P	75 - 128
Sulfentrazone	68.7	76.0	P/P	20 - 132
Tebuconazole	93.2	87.1	P/P	20 - 116
Terbufos	83.8	85.7	P/P	61 - 117
Terbuthylazine	88.0	91.3	P/P	74 - 116

Reference Method: EPA 8270E

Batch ID: P399210

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	47.7	48.1	P/P	20 - 150
Alpha-BHC	94.4	92.8	P/P	50 - 150
Alpha-Chlordane	81.6	86.8	P/P	50 - 150
Beta-BHC	106	104	P/P	50 - 150
Beta-Cyfluthrin	98.0	112	P/P	50 - 150
Bifenthrin	72.3	75.6	P/P	40 - 150
Carbophenothion	53.7	60.7	P/P	20 - 150
Chlorothalonil	81.7	85.0	P/P	20 - 150
Cis-Nonachlor	83.5	91.4	P/P	50 - 150
Cypermethrin	98.2	107	P/P	50 - 150
Dacthal	90.4	97.1	P/P	50 - 150
DDD-p,p'	83.9	89.1	P/P	50 - 150
DDE-p,p'	80.9	84.3	P/P	50 - 150
DDT-p,p'	83.2	85.1	P/P	50 - 150
Delta-BHC	109	112	P/P	50 - 150
Deltamethrin	83.9	103	P/P	50 - 150
Dichlobenil	58.6	56.4	P/P	40 - 150
Dicofol	81.2	86.5	P/P	50 - 150
Dieldrin	87.5	91.6	P/P	50 - 150
Endosulfan I	86.3	90.0	P/P	50 - 150
Endosulfan II	97.5	105	P/P	50 - 150
Endosulfan Sulfate	99.9	116	P/P	50 - 150
Endrin	86.1	94.0	P/P	50 - 150
Endrin Aldehyde	82.5	84.1	P/P	50 - 150
Endrin Ketone	110	122	P/P	50 - 150
Esfenvalerate	89.1	99.4	P/P	50 - 180
Ethalfuralin	80.6	82.8	P/P	50 - 150
Fenpropathrin	84.8	95.5	P/P	50 - 150
Gamma-BHC	97.9	99.7	P/P	50 - 150
Gamma-Chlordane	81.0	83.4	P/P	50 - 150
Heptachlor	78.6	77.2	P/P	50 - 150
Heptachlor Epoxide	85.2	87.8	P/P	50 - 150
Hexachlorobenzene	80.1	74.3	P/P	50 - 150
Kepone	117	100	P/P	30 - 180

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P399210

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Lambda-Cyhalothrin	65.6	83.0	P/P	50 - 200
Methoxychlor	93.2	98.1	P/P	50 - 150
MGK-264	74.0	82.5	P/P	30 - 150
Mirex	136	154	P/P	50 - 180
Permethrin	93.5	102	P/P	50 - 150
Phenothrin	54.4	62.9	P/P	20 - 150
Piperonyl Butoxide	52.7	69.4	P/P	50 - 150
Prallethrin	65.7	74.7	P/P	30 - 150
Tau-Fluvalinate	74.7	84.1	P/P	40 - 150
Tetramethrin	79.2	88.8	P/P	30 - 150
Trans-Nonachlor	76.3	82.2	P/P	50 - 150
Triclosan Methyl	84.0	87.7	P/P	50 - 150
Trifluralin	82.9	83.3	P/P	50 - 150

Reference Method: EPA 8276
Batch ID: P399210

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	82.9	81.1	P/P	56 - 117
Toxaphene	101	98.7	P/P	45 - 116

Reference Method: EPA 8321B
Batch ID: P399017

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	94.1		P	40 - 150
AMPA	89.9		P	40 - 150
Endothall	88.2		P	40 - 150
Glufosinate	104		P	40 - 150
Glyphosate	104		P	40 - 150
Sucralose	113		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P399076

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	97.1		P	40 - 150
2,4,5-T	103		P	40 - 150
Acetaminophen	62.1		P	30 - 150
Acetamiprid	88.6		P	40 - 150
Afidopyropen	80.4		P	40 - 150
Bentazon	110		P	30 - 150
Benzovindiflupyr	96.8		P	40 - 150
Carbamazepine	91.1		P	40 - 150
Clothianidin	76.1		P	40 - 150
Dinotefuran	71.4		P	40 - 150
Diuron	88.2		P	40 - 150
Fenuron	103		P	40 - 150
Fluridone	89.3		P	40 - 150
Hydrocodone	78.7		P	40 - 150
Ibuprofen	82.6		P	40 - 150
Imazapyr	97.3		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P399076

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Imidacloprid	78.0		P	40 - 150
Linuron	81.4		P	40 - 150
Mandestrobin	99.1		P	40 - 150
MCPD	105		P	40 - 150
Naproxen	84.6		P	40 - 150
Primidone	95.2		P	40 - 150
Pyraclostrobin	90.2		P	40 - 150
Thiamethoxam	82.0		P	40 - 150
Tolfenpyrad	57.3		P	30 - 150
Triclopyr	96.0		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P399077

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	83.1		P	30 - 160
Aldicarb	103		P	30 - 160
Aldicarb Sulfone	88.8		P	30 - 160
Aldicarb Sulfoxide	77.5		P	30 - 160
Carbaryl	63.4		P	30 - 160
Carbofuran	60.4		P	30 - 160
Methiocarb	75.1		P	30 - 160
Methomyl	72.1		P	30 - 160
Oxamyl	88.6		P	30 - 160
Propoxur	65.9		P	30 - 160

Reference Method: SM 2320 B-2011

Batch ID: P399280

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.9		P	94 - 106

Reference Method: SM 4500 F-C-2011

Batch ID: P399274

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.3		P	93 - 104

Reference Method: SM 5310 B-2011

Batch ID: P399731

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.8		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P399094

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2251439	Chromium	90.3	92.9	P/P	70 - 130
2251439	Iron	105	105	P/P	70 - 130
2251439	Manganese	99.8	101	P/P	70 - 130
2251439	Zinc	105	106	P/P	70 - 130

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P399094

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2251439	Aluminum	108	113	P/P	70 - 130
2251439	Antimony	104	109	P/P	70 - 130
2251439	Arsenic	106	112	P/P	70 - 130
2251439	Beryllium	81.8	86.4	P/P	70 - 130
2251439	Cadmium	97.1	102	P/P	70 - 130
2251439	Copper	106	111	P/P	70 - 130
2251439	Lead	113	114	P/P	70 - 130
2251439	Nickel	104	111	P/P	70 - 130
2251439	Selenium	98.1	101	P/P	70 - 130
2251439	Silver	93.1	95.5	P/P	70 - 130
2251439	Thallium	111	117	P/P	70 - 130

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P399516

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2251252	Ammonia-N	100	99.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P399151

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2251126	Kjeldahl Nitrogen	101	95.7	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P399134

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2251427	NO2NO3-N	98.5	98.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P399540

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2251595	Total-P	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P399122

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2251614	O-Phosphate-P	93.4	97.6	P/P	90 - 110

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P399205

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2251292	Acetochlor	93.8	99.8	P/P	66 - 122
2251292	Alachlor	89.1	88.7	P/P	65 - 122
2251292	Ametryn	118	123	P/P	45 - 173
2251292	Atrazine Desethyl	58.4	70.1	P/P	25 - 150
2251292	Azinphos Methyl	207	211	F/F	44 - 174
2251292	Azoxystrobin	71.4	40.4	P/P	10 - 268
2251292	Bromacil	91.5	95.9	P/P	31 - 145
2251292	Butylate	49.5	43.2	P/P	15 - 97.0
2251292	Carbophenothion	99.7	99.4	P/P	42 - 129
2251292	Carfentrazone Ethyl	125	125	P/P	62 - 145
2251292	Chlorpyrifos Ethyl	85.2	81.3	P/P	60 - 124
2251292	Chlorpyrifos Methyl	81.9	85.9	P/P	66 - 119
2251292	Cyanazine	169	173	P/P	17 - 225
2251292	Demeton	93.7	99.1	P/P	36 - 142
2251292	Diazinon	93.3	98.3	P/P	70 - 128
2251292	Difenoconazole	95.7	90.2	P/P	33 - 222
2251292	Dimethenamid	83.2	85.4	P/P	54 - 125
2251292	Disulfoton	89.3	91.3	P/P	49 - 133
2251292	Dithiopyr	85.3	87.4	P/P	55 - 123
2251292	EPTC	45.9	38.2	P/P	19 - 91.0
2251292	Ethion	40.7	36.4	P/P	13 - 143
2251292	Ethoprop	103	106	P/P	49 - 144
2251292	Fenamiphos	101	92.2	P/P	32 - 136
2251292	Fenbuconazole	92.1	97.7	P/P	73 - 148
2251292	Fipronil	95.8	104	P/P	57 - 129
2251292	Fipronil Desulfinyl	90.2	96.3	P/P	49 - 127
2251292	Fipronil Sulfide	86.5	91.1	P/P	44 - 127
2251292	Fipronil Sulfone	83.6	82.8	P/P	35 - 126
2251292	Fluazifop-P-butyl	113	115	P/P	67 - 129
2251292	Fludioxonil	90.4	95.8	P/P	61 - 126
2251292	Flumioxazin	107	100	P/P	38 - 279
2251292	Flutolanil	118	96.7	P/P	55 - 136
2251292	Fluxapyroxad	99.1	102	P/P	33 - 140
2251292	Fonofos	87.3	98.4	P/P	58 - 125
2251292	Hexazinone	91.8	92.6	P/P	57 - 148
2251292	Imazalil	141	143	P/P	10 - 221
2251292	Iprodione	117	123	P/P	32 - 140
2251292	Malathion	99.3	103	P/P	52 - 138
2251292	Metalaxyl	92.5	102	P/P	46 - 134
2251292	Metolachlor	88.1	95.3	P/P	58 - 122
2251292	Metribuzin	100	111	P/P	16 - 272
2251292	Mevinphos	101	105	P/P	45 - 140
2251292	Molinate	72.2	68.0	P/P	41 - 103
2251292	Myclobutanil	107	105	P/P	60 - 134
2251292	Naled	33.1	31.0	P/P	20 - 113
2251292	Norflurazon	97.6	106	P/P	51 - 123
2251292	Oxadiazon	102	111	P/P	44 - 125
2251292	Oxyfluorfen	104	111	P/P	66 - 176
2251292	Parathion Ethyl	87.3	96.0	P/P	57 - 132
2251292	Parathion Methyl	98.0	104	P/P	59 - 156
2251292	Pendimethalin	82.5	85.7	P/P	59 - 129
2251292	Phorate	112	116	P/P	47 - 136

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P399205

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2251292	Prodiamine	46.0	57.5	P/P	10 - 159
2251292	Prometon	95.9	107	P/P	59 - 127
2251292	Prometryn	103	110	P/P	59 - 129
2251292	Pronamide	107	123	P/P	65 - 145
2251292	Propiconazole	106	109	P/P	28 - 165
2251292	Pyriproxyfen	126	138	P/P	21 - 180
2251292	Simazine	98.9	104	P/P	63 - 147
2251292	Sulfentrazone	120	135	P/P	32 - 136
2251292	Tebuconazole	53.9	51.4	P/P	10 - 117
2251292	Terbufos	85.7	92.8	P/P	61 - 131
2251292	Terbutylazine	91.1	101	P/P	62 - 126

Reference Method: EPA 8270E

Batch ID: P399210

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2252468	Aldrin	62.0	70.7	P/P	20 - 170
2252468	Alpha-BHC	86.9	89.5	P/P	50 - 170
2252468	Alpha-Chlordane	107	82.9	P/P	50 - 170
2252468	Beta-BHC	86.0	89.3	P/P	50 - 170
2252468	Beta-Cyfluthrin	130	118	P/P	50 - 170
2252468	Bifenthrin	75.5	82.7	P/P	40 - 170
2252468	Carbophenothion	85.4	68.6	P/P	20 - 170
2252468	Chlorothalonil	51.3	58.5	P/P	20 - 170
2252468	Cis-Nonachlor	74.6	72.7	P/P	50 - 170
2252468	Cypermethrin	96.5	97.4	P/P	50 - 170
2252468	Dacthal	80.8	79.6	P/P	50 - 170
2252468	DDD-p,p'	85.0	70.8	P/P	50 - 170
2252468	DDE-p,p'	79.1	71.4	P/P	50 - 170
2252468	DDT-p,p'	79.9	82.0	P/P	50 - 170
2252468	Delta-BHC	110	106	P/P	50 - 170
2252468	Deltamethrin	40.8	53.6	F/P	50 - 170
2252468	Dichlobenil	46.3	38.7	P/F	40 - 170
2252468	Dicofol	59.1	64.7	P/P	50 - 170
2252468	Dieldrin	143	73.8	P/P	50 - 170
2252468	Endosulfan I	94.5	77.6	P/P	50 - 170
2252468	Endosulfan II	94.4	101	P/P	50 - 170
2252468	Endosulfan Sulfate	79.2	75.1	P/P	50 - 170
2252468	Endrin	85.5	81.4	P/P	50 - 170
2252468	Endrin Aldehyde	44.4	53.3	F/P	50 - 170
2252468	Endrin Ketone	115	104	P/P	50 - 170
2252468	Esfenvalerate	106	100	P/P	50 - 180
2252468	Ethalfuralin	88.1	93.0	P/P	50 - 170
2252468	Fenpropathrin	90.2	68.5	P/P	50 - 170
2252468	Gamma-BHC	79.9	63.3	P/P	50 - 170
2252468	Gamma-Chlordane	91.2	72.7	P/P	50 - 170
2252468	Heptachlor	80.6	95.5	P/P	50 - 170
2252468	Heptachlor Epoxide	88.6	75.4	P/P	50 - 170
2252468	Hexachlorobenzene	68.6	76.1	P/P	50 - 170
2252468	Kepone	125	100	P/P	30 - 180
2252468	Lambda-Cyhalothrin	116	108	P/P	50 - 200
2252468	Methoxychlor	101	90.7	P/P	50 - 170

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P399210

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2252468	MGK-264	78.1	72.0	P/P	30 - 170
2252468	Mirex	148	173	P/P	50 - 180
2252468	Permethrin	111	83.2	P/P	50 - 170
2252468	Phenothrin	102	75.9	P/P	20 - 170
2252468	Piperonyl Butoxide	55.3	59.1	P/P	50 - 170
2252468	Prallethrin	79.5	66.1	P/P	30 - 170
2252468	Tau-Fluvalinate	88.9	83.3	P/P	40 - 170
2252468	Tetramethrin	80.8	83.8	P/P	30 - 170
2252468	Trans-Nonachlor	70.3	70.1	P/P	50 - 170
2252468	Triclosan Methyl	71.5	71.4	P/P	50 - 170
2252468	Trifluralin	87.9	90.2	P/P	50 - 170

Reference Method: EPA 8276

Batch ID: P399210

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2252329	Chlordane	83.6	92.9	P/P	47 - 128
2252329	Toxaphene	103	117	P/P	11 - 163

Reference Method: EPA 8321B

Batch ID: P399017

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250902	Acesulfame K	84.9	81.4	P/P	40 - 150
2250902	AMPA	72.3	70.9	P/P	40 - 150
2250902	Endothall	93.1	103	P/P	40 - 150
2250902	Glufosinate	105	95.8	P/P	40 - 150
2250902	Glyphosate	99.6	90.0	P/P	40 - 150
2250902	Sucralose	38.7	52.0	F/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P399076

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2251243	2,4-D	122	128	P/P	40 - 150
2251243	2,4,5-T	107	105	P/P	40 - 150
2251243	Acetaminophen	89.9	81.9	P/P	30 - 150
2251243	Acetamiprid	103	94.5	P/P	40 - 150
2251243	Afidopyropen	92.5	79.5	P/P	40 - 150
2251243	Bentazon	102	94.0	P/P	30 - 150
2251243	Benzovindiflupyr	98.2	97.1	P/P	40 - 150
2251243	Carbamazepine	103	102	P/P	40 - 150
2251243	Clothianidin	97.1	90.4	P/P	40 - 150
2251243	Dinotefuran	92.2	85.7	P/P	40 - 150
2251243	Diuron	79.8	75.4	P/P	40 - 150
2251243	Fenuron	102	104	P/P	40 - 150
2251243	Fluridone	85.2	80.8	P/P	40 - 150
2251243	Hydrocodone	88.8	94.3	P/P	40 - 150
2251243	Ibuprofen	80.6	79.1	P/P	40 - 150
2251243	Imazapyr	117	103	P/P	40 - 150
2251243	Imidacloprid	130	116	P/P	40 - 150
2251243	Linuron	74.9	79.9	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P399076

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2251243	Mandestrobin	98.8	95.5	P/P	40 - 150
2251243	MCP	121	119	P/P	40 - 150
2251243	Naproxen	106	78.9	P/P	40 - 150
2251243	Primidone	124	99.4	P/P	40 - 150
2251243	Pyraclostrobin	98.9	96.1	P/P	40 - 150
2251243	Thiamethoxam	122	108	P/P	40 - 150
2251243	Tolfenpyrad	56.5	59.9	P/P	30 - 150
2251243	Triclopyr	119	113	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P399077

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250951	3-Hydroxycarbofuran	97.8	91.3	P/P	30 - 160
2250951	Aldicarb	90.0	57.8	P/P	30 - 160
2250951	Aldicarb Sulfone	108	104	P/P	30 - 160
2250951	Aldicarb Sulfoxide	68.8	65.7	P/P	30 - 160
2250951	Carbaryl	49.0	46.4	P/P	30 - 160
2250951	Carbofuran	52.6	45.7	P/P	30 - 160
2250951	Methiocarb	68.5	69.3	P/P	30 - 160
2250951	Methomyl	68.6	69.0	P/P	30 - 160
2250951	Oxamyl	89.6	81.0	P/P	30 - 160
2250951	Propoxur	51.0	46.3	P/P	30 - 160

Reference Method: SM 4500 F-C-2011

Batch ID: P399274

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2251254	Fluoride	95.2	95.9	P/P	92 - 107

Reference Method: SM 5310 B-2011

Batch ID: P399731

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2252393	Organic Carbon	98.8	98.4	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P399115

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2251251	Turbidity	3.26	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P399094

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2251439	Calcium	0.615	Spike	P	0 - 20
2251439	Chromium	2.72	Spike	P	0 - 20
2251439	Iron	0.112	Spike	P	0 - 20
2251439	Magnesium	0.744	Spike	P	0 - 20
2251439	Manganese	1.64	Spike	P	0 - 20
2251439	Zinc	0.423	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P399094

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2251439	Aluminum	4.03	Spike	P	0 - 20
2251439	Antimony	4.90	Spike	P	0 - 20
2251439	Arsenic	4.68	Spike	P	0 - 20
2251439	Beryllium	5.45	Spike	P	0 - 20
2251439	Cadmium	5.32	Spike	P	0 - 20
2251439	Copper	4.29	Spike	P	0 - 20
2251439	Lead	1.06	Spike	P	0 - 20
2251439	Nickel	4.37	Spike	P	0 - 20
2251439	Selenium	2.71	Spike	P	0 - 20
2251439	Silver	2.54	Spike	P	0 - 20
2251439	Thallium	5.83	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P399516

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2251252	Ammonia-N	0.374	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P399151

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2251126	Kjeldahl Nitrogen	4.12	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P399134

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2251427	NO2NO3-N	0.509	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P399540

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2251595	Total-P	0.611	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P399122

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2251614	O-Phosphate-P	4.21	Spike	P	0 - 20

Reference Method: EPA 8270E

Batch ID: P399205

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2251292	Acetochlor	6.11	Spike	P	0 - 30
2251292	Alachlor	0.449	Spike	P	0 - 30
2251292	Ametryn	4.21	Spike	P	0 - 30
2251292	Atrazine	7.54	Spike	P	0 - 30
2251292	Atrazine Desethyl	12.3	Spike	P	0 - 30
2251292	Azinphos Methyl	1.88	Spike	P	0 - 30
2251292	Azoxystrobin	55.4	Spike	F	0 - 30
2251292	Bromacil	4.63	Spike	P	0 - 30
2251292	Butylate	13.5	Spike	P	0 - 30
2251292	Caffeine	3.30	Spike	P	0 - 30
2251292	Carbophenothion	0.331	Spike	P	0 - 30
2251292	Carfentrazone Ethyl	0.0240	Spike	P	0 - 30
2251292	Chlorpyrifos Ethyl	4.70	Spike	P	0 - 30
2251292	Chlorpyrifos Methyl	4.87	Spike	P	0 - 30
2251292	Cyanazine	2.61	Spike	P	0 - 30
2251292	Demeton	5.56	Spike	P	0 - 30
2251292	Diazinon	5.23	Spike	P	0 - 30
2251292	Difenoconazole	5.93	Spike	P	0 - 30
2251292	Dimethenamid	2.61	Spike	P	0 - 30
2251292	Disulfoton	2.19	Spike	P	0 - 30
2251292	Dithiopyr	2.41	Spike	P	0 - 30
2251292	EPTC	18.2	Spike	P	0 - 30
2251292	Ethion	11.3	Spike	P	0 - 30
2251292	Ethoprop	2.72	Spike	P	0 - 30
2251292	Fenamiphos	9.55	Spike	P	0 - 30
2251292	Fenbuconazole	5.84	Spike	P	0 - 30
2251292	Fipronil	8.52	Spike	P	0 - 30
2251292	Fipronil Desulfinyl	6.57	Spike	P	0 - 30
2251292	Fipronil Sulfide	5.22	Spike	P	0 - 30
2251292	Fipronil Sulfone	0.918	Spike	P	0 - 30
2251292	Fluazifop-P-butyl	1.90	Spike	P	0 - 30
2251292	Fludioxonil	5.61	Spike	P	0 - 30
2251292	Flumioxazin	6.70	Spike	P	0 - 30
2251292	Flutolanil	20.1	Spike	P	0 - 30
2251292	Fluxapyroxad	2.92	Spike	P	0 - 30
2251292	Fonofos	11.9	Spike	P	0 - 30
2251292	Hexazinone	0.653	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P399205

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2251292	Imazalil	1.36	Spike	P	0 - 30
2251292	Iprodione	5.32	Spike	P	0 - 30
2251292	Malathion	3.68	Spike	P	0 - 30
2251292	Metalaxyl	9.35	Spike	P	0 - 30
2251292	Metolachlor	7.34	Spike	P	0 - 30
2251292	Metribuzin	9.77	Spike	P	0 - 30
2251292	Mevinphos	3.64	Spike	P	0 - 30
2251292	Molinate	6.05	Spike	P	0 - 30
2251292	Myclobutanil	1.44	Spike	P	0 - 30
2251292	Naled	6.38	Spike	P	0 - 30
2251292	Norflurazon	8.03	Spike	P	0 - 30
2251292	Oxadiazon	8.43	Spike	P	0 - 30
2251292	Oxyfluorfen	6.18	Spike	P	0 - 30
2251292	Parathion Ethyl	9.49	Spike	P	0 - 30
2251292	Parathion Methyl	5.50	Spike	P	0 - 30
2251292	Pendimethalin	3.70	Spike	P	0 - 30
2251292	Phorate	3.96	Spike	P	0 - 30
2251292	Prodiamine	22.2	Spike	P	0 - 30
2251292	Prometon	10.6	Spike	P	0 - 30
2251292	Prometryn	6.15	Spike	P	0 - 30
2251292	Pronamide	13.8	Spike	P	0 - 30
2251292	Propiconazole	2.08	Spike	P	0 - 30
2251292	Pyriproxyfen	9.35	Spike	P	0 - 30
2251292	Simazine	4.89	Spike	P	0 - 30
2251292	Sulfentrazone	11.3	Spike	P	0 - 30
2251292	Tebuconazole	3.19	Spike	P	0 - 30
2251292	Terbufos	8.01	Spike	P	0 - 30
2251292	Terbutylazine	10.1	Spike	P	0 - 30
LFB	Acetochlor	5.31	LCS	P	0 - 30
LFB	Alachlor	4.46	LCS	P	0 - 30
LFB	Ametryn	1.74	LCS	P	0 - 30
LFB	Atrazine	5.15	LCS	P	0 - 30
LFB	Atrazine Desethyl	25.7	LCS	P	0 - 30
LFB	Azinphos Methyl	1.77	LCS	P	0 - 30
LFB	Azoxystrobin	21.7	LCS	P	0 - 30
LFB	Bromacil	10.3	LCS	P	0 - 30
LFB	Butylate	15.2	LCS	P	0 - 30
LFB	Caffeine	8.29	LCS	P	0 - 30
LFB	Carbophenothion	0.301	LCS	P	0 - 30
LFB	Carfentrazone Ethyl	7.15	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	7.50	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	3.98	LCS	P	0 - 30
LFB	Cyanazine	0.965	LCS	P	0 - 30
LFB	Demeton	2.19	LCS	P	0 - 30
LFB	Diazinon	3.61	LCS	P	0 - 30
LFB	Difenoconazole	7.17	LCS	P	0 - 30
LFB	Dimethenamid	3.94	LCS	P	0 - 30
LFB	Disulfoton	1.38	LCS	P	0 - 30
LFB	Dithiopyr	7.29	LCS	P	0 - 30
LFB	EPTC	16.6	LCS	P	0 - 30
LFB	Ethion	24.9	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P399205

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Ethoprop	3.71	LCS	P	0 - 30
LFB	Fenamiphos	1.26	LCS	P	0 - 30
LFB	Fenbuconazole	5.57	LCS	P	0 - 30
LFB	Fipronil	17.6	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	4.02	LCS	P	0 - 30
LFB	Fipronil Sulfide	9.63	LCS	P	0 - 30
LFB	Fipronil Sulfone	7.79	LCS	P	0 - 30
LFB	Fluazifop-P-butyl	10.4	LCS	P	0 - 30
LFB	Fludioxonil	0.376	LCS	P	0 - 30
LFB	Flumioxazin	19.2	LCS	P	0 - 30
LFB	Flutolanil	8.70	LCS	P	0 - 30
LFB	Fluxapyroxad	3.53	LCS	P	0 - 30
LFB	Fonofos	1.52	LCS	P	0 - 30
LFB	Hexazinone	6.26	LCS	P	0 - 30
LFB	Imazalil	1.99	LCS	P	0 - 30
LFB	Iprodione	16.4	LCS	P	0 - 30
LFB	Malathion	0.925	LCS	P	0 - 30
LFB	Metalaxyl	0.747	LCS	P	0 - 30
LFB	Metolachlor	4.62	LCS	P	0 - 30
LFB	Metribuzin	11.4	LCS	P	0 - 30
LFB	Mevinphos	6.77	LCS	P	0 - 30
LFB	Molinate	9.11	LCS	P	0 - 30
LFB	Myclobutanil	5.12	LCS	P	0 - 30
LFB	Naled	16.6	LCS	P	0 - 30
LFB	Norflurazon	17.8	LCS	P	0 - 30
LFB	Oxadiazon	8.63	LCS	P	0 - 30
LFB	Oxyfluorfen	8.62	LCS	P	0 - 30
LFB	Parathion Ethyl	4.24	LCS	P	0 - 30
LFB	Parathion Methyl	18.3	LCS	P	0 - 30
LFB	Pendimethalin	8.09	LCS	P	0 - 30
LFB	Phorate	2.46	LCS	P	0 - 30
LFB	Prodiamine	6.28	LCS	P	0 - 30
LFB	Prometon	9.44	LCS	P	0 - 30
LFB	Prometryn	2.30	LCS	P	0 - 30
LFB	Pronamide	3.22	LCS	P	0 - 30
LFB	Propiconazole	17.4	LCS	P	0 - 30
LFB	Pyriproxyfen	4.10	LCS	P	0 - 30
LFB	Simazine	10.2	LCS	P	0 - 30
LFB	Sulfentrazone	10.1	LCS	P	0 - 30
LFB	Tebuconazole	6.80	LCS	P	0 - 30
LFB	Terbufos	2.23	LCS	P	0 - 30
LFB	Terbutylazine	3.69	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P399210

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2252468	Aldrin	13.2	Spike	P	0 - 30
2252468	Alpha-BHC	3.01	Spike	P	0 - 30
2252468	Alpha-Chlordane	24.9	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P399210

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2252468	Beta-BHC	3.71	Spike	P	0 - 30
2252468	Beta-Cyfluthrin	9.86	Spike	P	0 - 30
2252468	Bifenthrin	9.10	Spike	P	0 - 30
2252468	Carbophenothion	21.8	Spike	P	0 - 30
2252468	Chlorothalonil	13.1	Spike	P	0 - 50
2252468	Cis-Nonachlor	2.53	Spike	P	0 - 30
2252468	Cypermethrin	0.878	Spike	P	0 - 30
2252468	Dacthal	1.57	Spike	P	0 - 30
2252468	DDD-p,p'	18.3	Spike	P	0 - 30
2252468	DDE-p,p'	10.2	Spike	P	0 - 30
2252468	DDT-p,p'	2.56	Spike	P	0 - 30
2252468	Delta-BHC	3.50	Spike	P	0 - 30
2252468	Deltamethrin	27.3	Spike	P	0 - 30
2252468	Dichlobenil	17.9	Spike	P	0 - 30
2252468	Dicofol	9.18	Spike	P	0 - 30
2252468	Dieldrin	64.1	Spike	F	0 - 30
2252468	Endosulfan I	19.7	Spike	P	0 - 30
2252468	Endosulfan II	6.50	Spike	P	0 - 30
2252468	Endosulfan Sulfate	5.38	Spike	P	0 - 30
2252468	Endrin	4.92	Spike	P	0 - 30
2252468	Endrin Aldehyde	18.1	Spike	P	0 - 30
2252468	Endrin Ketone	9.45	Spike	P	0 - 30
2252468	Esfenvalerate	5.70	Spike	P	0 - 30
2252468	Ethalfuralin	5.42	Spike	P	0 - 30
2252468	Fenpropathrin	27.4	Spike	P	0 - 30
2252468	Gamma-BHC	23.2	Spike	P	0 - 30
2252468	Gamma-Chlordane	22.7	Spike	P	0 - 30
2252468	Heptachlor	16.9	Spike	P	0 - 30
2252468	Heptachlor Epoxide	16.0	Spike	P	0 - 30
2252468	Hexachlorobenzene	10.3	Spike	P	0 - 30
2252468	Kepone	22.1	Spike	P	0 - 30
2252468	Lambda-Cyhalothrin	6.59	Spike	P	0 - 30
2252468	Methoxychlor	10.8	Spike	P	0 - 30
2252468	MGK-264	8.22	Spike	P	0 - 30
2252468	Mirex	15.2	Spike	P	0 - 30
2252468	Permethrin	29.1	Spike	P	0 - 30
2252468	Phenothrin	29.3	Spike	P	0 - 30
2252468	Piperonyl Butoxide	6.77	Spike	P	0 - 30
2252468	Prallethrin	18.4	Spike	P	0 - 30
2252468	Tau-Fluvalinate	6.49	Spike	P	0 - 30
2252468	Tetramethrin	3.70	Spike	P	0 - 30
2252468	Trans-Nonachlor	0.254	Spike	P	0 - 30
2252468	Triclosan Methyl	0.128	Spike	P	0 - 30
2252468	Trifluralin	2.54	Spike	P	0 - 30
LFB	Aldrin	0.885	LCS	P	0 - 30
LFB	Alpha-BHC	1.71	LCS	P	0 - 30
LFB	Alpha-Chlordane	6.16	LCS	P	0 - 30
LFB	Beta-BHC	2.48	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	13.8	LCS	P	0 - 30
LFB	Bifenthrin	4.52	LCS	P	0 - 30
LFB	Carbophenothion	12.3	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P399210

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Chlorothalonil	4.02	LCS	P	0 - 50
LFB	Cis-Nonachlor	9.03	LCS	P	0 - 30
LFB	Cypermethrin	8.24	LCS	P	0 - 30
LFB	Dacthal	7.20	LCS	P	0 - 30
LFB	DDD-p,p'	6.09	LCS	P	0 - 30
LFB	DDE-p,p'	4.05	LCS	P	0 - 30
LFB	DDT-p,p'	2.25	LCS	P	0 - 30
LFB	Delta-BHC	2.66	LCS	P	0 - 30
LFB	Deltamethrin	20.4	LCS	P	0 - 30
LFB	Dichlobenil	3.85	LCS	P	0 - 30
LFB	Dicofol	6.39	LCS	P	0 - 30
LFB	Dieldrin	4.64	LCS	P	0 - 30
LFB	Endosulfan I	4.14	LCS	P	0 - 30
LFB	Endosulfan II	7.60	LCS	P	0 - 30
LFB	Endosulfan Sulfate	15.0	LCS	P	0 - 30
LFB	Endrin	8.74	LCS	P	0 - 30
LFB	Endrin Aldehyde	1.84	LCS	P	0 - 30
LFB	Endrin Ketone	10.8	LCS	P	0 - 30
LFB	Esfenvalerate	10.8	LCS	P	0 - 30
LFB	Ethalfuralin	2.70	LCS	P	0 - 30
LFB	Fenpropathrin	11.8	LCS	P	0 - 30
LFB	Gamma-BHC	1.79	LCS	P	0 - 30
LFB	Gamma-Chlordane	2.86	LCS	P	0 - 30
LFB	Heptachlor	1.73	LCS	P	0 - 30
LFB	Heptachlor Epoxide	3.02	LCS	P	0 - 30
LFB	Hexachlorobenzene	7.52	LCS	P	0 - 30
LFB	Kepone	15.0	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	23.3	LCS	P	0 - 30
LFB	Methoxychlor	5.04	LCS	P	0 - 30
LFB	MGK-264	10.9	LCS	P	0 - 30
LFB	Mirex	12.3	LCS	P	0 - 30
LFB	Permethrin	8.45	LCS	P	0 - 30
LFB	Phenothrin	14.5	LCS	P	0 - 30
LFB	Piperonyl Butoxide	27.3	LCS	P	0 - 30
LFB	Prallethrin	12.8	LCS	P	0 - 30
LFB	Tau-Fluvalinate	11.8	LCS	P	0 - 30
LFB	Tetramethrin	11.5	LCS	P	0 - 30
LFB	Trans-Nonachlor	7.42	LCS	P	0 - 30
LFB	Triclosan Methyl	4.29	LCS	P	0 - 30
LFB	Trifluralin	0.465	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P399210

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2252329	Chlordane	10.6	Spike	P	0 - 30
2252329	Toxaphene	12.2	Spike	P	0 - 30
LFB	Chlordane	2.29	LCS	P	0 - 30
LFB	Toxaphene	2.31	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P399017

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250902	Acesulfame K	3.94	Spike	P	0 - 30
2250902	AMPA	1.92	Spike	P	0 - 30
2250902	Endothall	10.5	Spike	P	0 - 30
2250902	Glufosinate	8.87	Spike	P	0 - 30
2250902	Glyphosate	8.49	Spike	P	0 - 30
2250902	Sucralose	27.3	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P399076

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2251243	2,4-D	4.60	Spike	P	0 - 30
2251243	2,4,5-T	1.50	Spike	P	0 - 30
2251243	Acetaminophen	9.36	Spike	P	0 - 30
2251243	Acetamiprid	8.91	Spike	P	0 - 30
2251243	Afidopyropen	15.1	Spike	P	0 - 30
2251243	Bentazon	8.47	Spike	P	0 - 30
2251243	Benzovindiflupyr	1.20	Spike	P	0 - 30
2251243	Carbamazepine	0.696	Spike	P	0 - 30
2251243	Clothianidin	7.13	Spike	P	0 - 30
2251243	Dinotefuran	7.30	Spike	P	0 - 30
2251243	Diuron	5.56	Spike	P	0 - 30
2251243	Fenuron	2.56	Spike	P	0 - 30
2251243	Fluridone	5.29	Spike	P	0 - 30
2251243	Hydrocodone	5.95	Spike	P	0 - 30
2251243	Ibuprofen	1.86	Spike	P	0 - 30
2251243	Imazapyr	7.71	Spike	P	0 - 30
2251243	Imidacloprid	12.1	Spike	P	0 - 30
2251243	Linuron	6.44	Spike	P	0 - 30
2251243	Mandestrobin	3.39	Spike	P	0 - 30
2251243	MCPP	1.91	Spike	P	0 - 30
2251243	Naproxen	29.7	Spike	P	0 - 30
2251243	Primidone	21.9	Spike	P	0 - 30
2251243	Pyraclostrobin	2.81	Spike	P	0 - 30
2251243	Thiamethoxam	12.3	Spike	P	0 - 30
2251243	Tolfenpyrad	5.84	Spike	P	0 - 30
2251243	Triclopyr	5.64	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P399077

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250951	3-Hydroxycarbofuran	6.87	Spike	P	0 - 30
2250951	Aldicarb	43.6	Spike	F	0 - 30
2250951	Aldicarb Sulfone	4.41	Spike	P	0 - 30
2250951	Aldicarb Sulfoxide	4.61	Spike	P	0 - 30
2250951	Carbaryl	5.43	Spike	P	0 - 30
2250951	Carbofuran	14.1	Spike	P	0 - 30
2250951	Methiocarb	1.13	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P399077

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250951	Methomyl	0.568	Spike	P	0 - 30
2250951	Oxamyl	10.0	Spike	P	0 - 30
2250951	Propoxur	9.66	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P399280

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2251254	Total Alkalinity	0.417	Sample	P	0 - 5.2

Reference Method: SM 4500 F-C-2011
Batch ID: P399274

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2251254	Fluoride	0.502	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
Batch ID: P399731

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2252393	Organic Carbon	0.289	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2251431
Field Sample ID: G2SE0048

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	50.5	P	30 - 160

Lab Sample ID: 2251432
Field Sample ID: G2SE0048

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	120	P	30 - 160
EPA 8321B	Acetaminophen-d4	113	P	30 - 160
EPA 8321B	Carbamazepine-d10	99.9	P	30 - 160
EPA 8321B	Diuron-d6	75.3	P	30 - 160
EPA 8321B	Endothall-d6	90.7	P	30 - 160
EPA 8321B	Endothall-d6	90.7	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	80.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	80.5	P	30 - 160
EPA 8321B	Ibuprofen-d3	80.8	P	30 - 160
EPA 8321B	Primidone-d5	109	P	30 - 160
EPA 8321B	Sucralose-d6	90.7	P	30 - 160
EPA 8321B	Sucralose-d6	90.7	P	30 - 160

Lab Sample ID: 2251433
Field Sample ID: G2SE0048

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	90.5	P	35 - 120
EPA 8270E	Tetrachloro-m-xylene	71.4	P	30 - 110
EPA 8276	Decachlorobiphenyl	75.9	P	29 - 92.0
EPA 8276	PCNB	82.3	P	43 - 134

Lab Sample ID: 2251434
Field Sample ID: G2SE0048

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	60.3	P	20 - 200
EPA 8270E	Simazine-d10	109	P	73 - 135
EPA 8270E	Terbufos-d10	77.7	P	58 - 130

Lab Sample ID: 2251435
Field Sample ID: FB_06012021

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	84.0	P	35 - 120
EPA 8270E	Tetrachloro-m-xylene	87.3	P	30 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A105825

Included Lab Sample IDs: 2251426

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.0	99.0	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A105826

Included Lab Sample IDs: 2251428

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	99.4	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A105827

Included Lab Sample IDs: 2251432

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	113	139	P/P	60 - 160
Endothall	125	126	P/P	60 - 160
Sucralose	116	101	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A105839

Included Lab Sample IDs: 2251432

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	119	121	P/P	60 - 160
Glufosinate	113	118	P/P	60 - 160
Glyphosate	109	119	P/P	60 - 160

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A105841

Included Lab Sample IDs: 2251427

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A105861

Included Lab Sample IDs: 2251445

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	99.1	98.4	P/P	90 - 110
Chromium	98.4	99.1	P/P	90 - 110
Iron	101	100	P/P	90 - 110
Magnesium	100	99.5	P/P	90 - 110
Manganese	102	101	P/P	90 - 110
Zinc	97.9	98.6	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A105868

Included Lab Sample IDs: 2251431

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

Reference Method: EPA 8321B
Run ID: A105868
Included Lab Sample IDs: 2251431

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	95.1	88.9	P/P	60 - 150
Aldicarb	118	122	P/P	60 - 150
Aldicarb Sulfone	111	105	P/P	50 - 150
Aldicarb Sulfoxide	109	98.2	P/P	50 - 150
Carbaryl	104	100	P/P	60 - 150
Carbofuran	107	91.2	P/P	50 - 150
Methiocarb	112	102	P/P	50 - 150
Methomyl	103	114	P/P	50 - 150
Oxamyl	115	108	P/P	50 - 150
Propoxur	107	99.6	P/P	50 - 150

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A105875
Included Lab Sample IDs: 2251427

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	91.3	90.9	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Run ID: A105892
Included Lab Sample IDs: 2251426

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

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A105899
Included Lab Sample IDs: 2251445

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	107	110	P/P	90 - 110
Antimony	105	107	P/P	90 - 110
Arsenic	106	107	P/P	90 - 110
Beryllium	105	106	P/P	90 - 110
Cadmium	105	105	P/P	90 - 110
Nickel	103	107	P/P	90 - 110
Selenium	108	107	P/P	90 - 110
Silver	101	103	P/P	90 - 110
Thallium	99.3	101	P/P	90 - 110

Reference Method: SM 2320 B-2011
Run ID: A105902
Included Lab Sample IDs: 2251426

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.3	96.5	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A105923

Included Lab Sample IDs: 2251445

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Copper	93.8	92.7	P/P	90 - 110
Lead	101	102	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A105993

Included Lab Sample IDs: 2251427

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.1	97.6	P/P	90 - 110

Reference Method: EPA 8276

Run ID: A106022

Included Lab Sample IDs: 2251433

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	96.4		P	80 - 120
Toxaphene	106		P	80 - 120

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A106033

Included Lab Sample IDs: 2251427

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

Reference Method: EPA 8270E

Run ID: A106037

Included Lab Sample IDs: 2251433, 2251435

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	101		P	80 - 120
Alpha-BHC	99.7		P	80 - 120
Alpha-Chlordane	104		P	80 - 120
Beta-BHC	102		P	80 - 120
Beta-Cyfluthrin	101		P	80 - 120
Bifenthrin	102		P	80 - 120
Carbophenothion	98.3		P	80 - 120
Chlorothalonil	96.7		P	80 - 120
Cis-Nonachlor	101		P	80 - 120
Cypermethrin	103		P	80 - 120
Dacthal	102		P	80 - 120
DDD-p,p'	104		P	80 - 120
DDE-p,p'	103		P	80 - 120
DDT-p,p'	101		P	80 - 120
Delta-BHC	100		P	80 - 120
Deltamethrin	95.8		P	80 - 120
Dichlobenil	105		P	80 - 120
Dicofol	98.7		P	80 - 120
Dieldrin	104		P	80 - 120
Endosulfan I	101		P	80 - 120
Endosulfan II	102		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A106037

Included Lab Sample IDs: 2251433, 2251435

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Endosulfan Sulfate	101		P	80 - 120
Endrin	104		P	80 - 120
Endrin Aldehyde	98.4		P	80 - 120
Endrin Ketone	104		P	80 - 120
Esfenvalerate	97.8		P	80 - 120
Ethalfuralin	99.8		P	80 - 120
Fenpropathrin	105		P	80 - 120
Gamma-BHC	98.7		P	80 - 120
Gamma-Chlordane	103		P	80 - 120
Heptachlor	102		P	80 - 120
Heptachlor Epoxide	102		P	80 - 120
Hexachlorobenzene	101		P	80 - 120
Kepone	93.5		P	80 - 120
Lambda-Cyhalothrin	118		P	80 - 120
Methoxychlor	101		P	80 - 120
MGK-264	102		P	80 - 120
Mirex	102		P	80 - 120
Permethrin	101		P	80 - 120
Phenothrin	103		P	80 - 120
Piperonyl Butoxide	97.6		P	80 - 120
Prallethrin	102		P	80 - 120
Tau-Fluvalinate	98.4		P	80 - 120
Tetramethrin	103		P	80 - 120
Trans-Nonachlor	101		P	80 - 120
Triclosan Methyl	101		P	80 - 120
Trifluralin	97.1		P	80 - 120

Reference Method: EPA 8321B

Run ID: A106040

Included Lab Sample IDs: 2251432

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	88.8	82.9	P/P	50 - 150
2,4,5-T	110	119	P/P	50 - 150
Acetaminophen	93.0	91.7	P/P	60 - 160
Acetamiprid	105	105	P/P	50 - 150
Afidopyropen	117	122	P/P	50 - 150
Bentazon	134	139	P/P	50 - 160
Benzovindiflupyr	98.9	109	P/P	50 - 150
Carbamazepine	104	108	P/P	60 - 150
Clothianidin	103	99.7	P/P	60 - 150
Dinotefuran	101	97.6	P/P	50 - 150
Diuron	111	101	P/P	60 - 160
Fenuron	93.4	91.3	P/P	60 - 150
Fluridone	109	106	P/P	60 - 160
Hydrocodone	97.8	94.2	P/P	60 - 150
Ibuprofen	109	95.4	P/P	50 - 160
Imazapyr	113	123	P/P	50 - 150
Imidacloprid	93.2	91.3	P/P	60 - 150
Linuron	104	95.6	P/P	60 - 150
Mandestrobin	106	96.7	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
 Run ID: A106040
 Included Lab Sample IDs: 2251432

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
MCPD	109	121	P/P	50 - 150
Naproxen	85.2	102	P/P	50 - 160
Primidone	108	113	P/P	60 - 150
Pyraclostrobin	108	107	P/P	60 - 150
Thiamethoxam	99.3	99.3	P/P	50 - 150
Tolfenpyrad	99.6	97.9	P/P	60 - 150
Triclopyr	104	103	P/P	50 - 150

Reference Method: EPA 8270E
 Run ID: A106042
 Included Lab Sample IDs: 2251434

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	101		P	80 - 120
Alachlor	98.5		P	80 - 120
Ametryn	97.0		P	80 - 120
Atrazine Desethyl	102		P	80 - 120
Azinphos Methyl	95.2		P	80 - 120
Azoxystrobin	108		P	80 - 120
Bromacil	99.5		P	80 - 120
Butylate	96.4		P	80 - 120
Caffeine	92.2		P	80 - 120
Carbophenothion	93.6		P	80 - 120
Carfentrazone Ethyl	96.5		P	80 - 120
Chlorpyrifos Ethyl	101		P	80 - 120
Chlorpyrifos Methyl	95.7		P	80 - 120
Cyanazine	103		P	80 - 120
Demeton	92.8		P	80 - 120
Diazinon	98.1		P	80 - 120
Difenoconazole	97.4		P	80 - 120
Dimethenamid	98.6		P	80 - 120
Disulfoton	92.7		P	80 - 120
Dithiopyr	98.6		P	80 - 120
EPTC	98.5		P	80 - 120
Ethion	95.1		P	80 - 120
Ethoprop	99.0		P	80 - 120
Fenamiphos	101		P	80 - 120
Fenbuconazole	96.7		P	80 - 120
Fipronil	96.2		P	80 - 120
Fipronil Desulfinyl	98.4		P	80 - 120
Fipronil Sulfide	101		P	80 - 120
Fipronil Sulfone	97.6		P	80 - 120
Fluazifop-P-butyl	105		P	80 - 120
Fludioxonil	99.5		P	80 - 120
Flumioxazin	90.9		P	80 - 120
Flutolanil	99.0		P	80 - 120
Fonofos	96.2		P	80 - 120
Hexazinone	99.0		P	80 - 120
Imazalil	104		P	80 - 120
Iprodione	100		P	80 - 120
Malathion	95.3		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A106042
Included Lab Sample IDs: 2251434

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Metalaxyl	101		P	80 - 120
Metolachlor	99.1		P	80 - 120
Metribuzin	94.0		P	80 - 120
Mevinphos	94.8		P	80 - 120
Molinate	100		P	80 - 120
Myclobutanil	95.1		P	80 - 120
Naled	98.5		P	80 - 120
Norflurazon	97.2		P	80 - 120
Oxadiazon	101		P	80 - 120
Oxyfluorfen	96.7		P	80 - 120
Parathion Ethyl	92.9		P	80 - 120
Parathion Methyl	99.7		P	80 - 120
Pendimethalin	96.8		P	80 - 120
Phorate	93.7		P	80 - 120
Prodiamine	92.8		P	80 - 120
Prometon	96.5		P	80 - 120
Prometryn	98.3		P	80 - 120
Pronamide	97.5		P	80 - 120
Propiconazole	99.3		P	80 - 120
Pyriproxyfen	98.9		P	80 - 120
Simazine	106		P	80 - 120
Sulfentrazone	100		P	80 - 120
Tebuconazole	95.5		P	80 - 120
Terbufos	94.8		P	80 - 120
Terbutylazine	98.9		P	80 - 120

Reference Method: SM 5310 B-2011
Run ID: A106083
Included Lab Sample IDs: 2251427

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.8	98.9	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A106162
Included Lab Sample IDs: 2251434

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluxapyroxad	96.4		P	80 - 120

Reference Method: EPA 8270E
Run ID: A106167
Included Lab Sample IDs: 2251434

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Atrazine	94.8		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		LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity						3.26	
EPA 200.7 Rev. 4.4	Calcium	107						0.615
	Chromium	93.1		90.3	92.9			2.72
	Iron	103		105	105			0.112
	Magnesium	103						0.744
	Manganese	98.3		99.8	101			1.64
	Zinc	93.5		105	106			0.423
EPA 200.8 Rev. 5.4	Aluminum	100		108	113			4.03
	Antimony	103		104	109			4.90
	Arsenic	103		106	112			4.68
	Beryllium	93.3		81.8	86.4			5.45
	Cadmium	104		97.1	102			5.32
	Copper	101		106	111			4.29
	Lead	105		113	114			1.06
	Nickel	101		104	111			4.37
	Selenium	101		98.1	101			2.71
	Silver	105		93.1	95.5			2.54
	Thallium	106		111	117			5.83
EPA 350.1 Rev. 2.0	Ammonia-N	99.0		100	99.8			0.374
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	98.7		101	95.7			4.12
EPA 353.2 Rev. 2.0	NO2NO3-N	99.0		98.5	98.0			0.509
EPA 365.1 Rev. 2.0	Total-P	103		102	102			0.611
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	102		93.4	97.6			4.21
EPA 8270E	Acetochlor	86.7	91.5	93.8	99.8	5.31		6.11
	Alachlor	85.2	89.1	89.1	88.7	4.46		0.449
	Aldrin	48.1	47.7	62.0	70.7	0.885		13.2
	Alpha-BHC	94.4	92.8	86.9	89.5	1.71		3.01
	Alpha-Chlordane	81.6	86.8	107	82.9	6.16		24.9
	Ametryn	103	105	118	123	1.74		4.21
	Atrazine	91.0	95.8			5.15		7.54
	Atrazine Desethyl	75.3	97.5	58.4	70.1	25.7		12.3
	Azinphos Methyl	117	115	207	211	1.77		1.88
	Azoxystrobin	122	151	71.4	40.4	21.7		55.4
	Beta-BHC	106	104	86.0	89.3	2.48		3.71
	Beta-Cyfluthrin	98.0	112	130	118	13.8		9.86
	Bifenthrin	72.3	75.6	75.5	82.7	4.52		9.10
	Bromacil	77.7	86.1	91.5	95.9	10.3		4.63
	Butylate	49.7	57.9	49.5	43.2	15.2		13.5
	Caffeine	94.0	86.6			8.29		3.30
	Carbophenothion	106	106	99.7	99.4	0.301		0.331
	Carbophenothion	53.7	60.7	85.4	68.6	12.3		21.8
	Carfentrazone Ethyl	113	122	125	125	7.15		0.0240
	Chlorothalonil	81.7	85.0	51.3	58.5	4.02		13.1
	Chlorpyrifos Ethyl	92.3	85.6	85.2	81.3	7.50		4.70
	Chlorpyrifos Methyl	88.7	85.3	81.9	85.9	3.98		4.87
	Cis-Nonachlor	83.5	91.4	74.6	72.7	9.03		2.53
	Cyanazine	175	177	169	173	0.965		2.61
	Cypermethrin	107	98.2	96.5	97.4	8.24		0.878
	Dacthal	97.1	90.4	80.8	79.6	7.20		1.57
	DDD-p,p'	89.1	83.9	85.0	70.8	6.09		18.3
	DDE-p,p'	84.3	80.9	79.1	71.4	4.05		10.2
	DDT-p,p'	85.1	83.2	79.9	82.0	2.25		2.56
	Delta-BHC	112	109	110	106	2.66		3.50
	Deltamethrin	103	83.9	40.8	53.6	20.4		27.3

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						SMP	MS
EPA 8270E	Demeton	84.1	86.0	93.7	99.1	2.19	5.56
	Diazinon	84.3	87.4	93.3	98.3	3.61	5.23
	Dichlobenil	56.4	58.6	46.3	38.7	3.85	17.9
	Dicofol	81.2	86.5	59.1	64.7	6.39	9.18
	Dieldrin	87.5	91.6	143	73.8	4.64	64.1
	Difenoconazole	112	120	95.7	90.2	7.17	5.93
	Dimethenamid	83.0	86.3	83.2	85.4	3.94	2.61
	Disulfoton	88.1	86.9	89.3	91.3	1.38	2.19
	Dithiopyr	77.4	83.2	85.3	87.4	7.29	2.41
	Endosulfan I	86.3	90.0	94.5	77.6	4.14	19.7
	Endosulfan II	97.5	105	94.4	101	7.60	6.50
	Endosulfan Sulfate	99.9	116	79.2	75.1	15.0	5.38
	Endrin	86.1	94.0	85.5	81.4	8.74	4.92
	Endrin Aldehyde	82.5	84.1	44.4	53.3	1.84	18.1
	Endrin Ketone	110	122	115	104	10.8	9.45
	EPTC	44.2	52.2	45.9	38.2	16.6	18.2
	Esfenvalerate	89.1	99.4	106	100	10.8	5.70
	Ethalfuralin	80.6	82.8	88.1	93.0	2.70	5.42
	Ethion	90.1	70.2	40.7	36.4	24.9	11.3
	Ethoprop	97.5	101	103	106	3.71	2.72
	Fenamiphos	115	116	101	92.2	1.26	9.55
	Fenbuconazole	86.3	91.3	92.1	97.7	5.57	5.84
	Fenpropathrin	84.8	95.5	90.2	68.5	11.8	27.4
	Fipronil	77.1	91.9	95.8	104	17.6	8.52
	Fipronil Desulfinyl	82.6	85.9	90.2	96.3	4.02	6.57
	Fipronil Sulfide	83.7	92.2	86.5	91.1	9.63	5.22
	Fipronil Sulfone	96.0	88.8	83.6	82.8	7.79	0.918
	Fluazifop-P-butyl	105	117	113	115	10.4	1.90
	Fludioxonil	92.3	92.7	90.4	95.8	0.376	5.61
	Flumioxazin	97.7	118	107	100	19.2	6.70
	Flutolanil	99.6	109	118	96.7	8.70	20.1
	Fluxapyroxad	86.6	89.7	99.1	102	3.53	2.92
	Fonofos	91.1	92.5	87.3	98.4	1.52	11.9
	Gamma-BHC	97.9	99.7	79.9	63.3	1.79	23.2
	Gamma-Chlordane	81.0	83.4	91.2	72.7	2.86	22.7
	Heptachlor	78.6	77.2	80.6	95.5	1.73	16.9
	Heptachlor Epoxide	85.2	87.8	88.6	75.4	3.02	16.0
	Hexachlorobenzene	80.1	74.3	68.6	76.1	7.52	10.3
	Hexazinone	92.1	98.0	91.8	92.6	6.26	0.653
	Imazalil	101	103	141	143	1.99	1.36
	Iprodione	78.4	92.4	117	123	16.4	5.32
	Kepone	117	100	125	100	15.0	22.1
	Lambda-Cyhalothrin	65.6	83.0	116	108	23.3	6.59
	Malathion	100	101	99.3	103	0.925	3.68
	Metalaxyl	94.4	93.7	92.5	102	0.747	9.35
	Methoxychlor	93.2	98.1	101	90.7	5.04	10.8
	Metolachlor	87.8	91.9	88.1	95.3	4.62	7.34
	Metribuzin	81.7	91.5	100	111	11.4	9.77
	Mevinphos	88.7	94.9	101	105	6.77	3.64
	MGK-264	74.0	82.5	78.1	72.0	10.9	8.22
	Mirex	136	154	148	173	12.3	15.2
	Molinate	65.6	71.8	72.2	68.0	9.11	6.05
	Myclobutanil	96.6	102	107	105	5.12	1.44
	Naled	32.0	37.8	33.1	31.0	16.6	6.38

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Norflurazon	90.8	109	97.6	106	17.8	8.03
	Oxadiazon	96.7	105	102	111	8.63	8.43
	Oxyfluorfen	93.9	102	104	111	8.62	6.18
	Parathion Ethyl	84.8	88.5	87.3	96.0	4.24	9.49
	Parathion Methyl	80.9	97.1	98.0	104	18.3	5.50
	Pendimethalin	74.4	80.7	82.5	85.7	8.09	3.70
	Permethrin	93.5	102	111	83.2	8.45	29.1
	Phenothrin	54.4	62.9	102	75.9	14.5	29.3
	Phorate	106	104	112	116	2.46	3.96
	Piperonyl Butoxide	52.7	69.4	55.3	59.1	27.3	6.77
	Prallethrin	65.7	74.7	79.5	66.1	12.8	18.4
	Prodiamine	45.4	48.3	46.0	57.5	6.28	22.2
	Prometon	87.7	96.4	95.9	107	9.44	10.6
	Prometryn	98.0	100	103	110	2.30	6.15
	Pronamide	89.6	92.6	107	123	3.22	13.8
	Propiconazole	105	124	106	109	17.4	2.08
	Pyriproxyfen	81.1	84.5	126	138	4.10	9.35
	Simazine	84.2	93.3	98.9	104	10.2	4.89
	Sulfentrazone	68.7	76.0	120	135	10.1	11.3
	Tau-Fluvalinate	74.7	84.1	88.9	83.3	11.8	6.49
	Tebuconazole	93.2	87.1	53.9	51.4	6.80	3.19
	Terbufos	83.8	85.7	85.7	92.8	2.23	8.01
	Terbutylazine	88.0	91.3	91.1	101	3.69	10.1
	Tetramethrin	79.2	88.8	80.8	83.8	11.5	3.70
	Trans-Nonachlor	76.3	82.2	70.3	70.1	7.42	0.254
	Triclosan Methyl	84.0	87.7	71.5	71.4	4.29	0.128
	Trifluralin	82.9	83.3	87.9	90.2	0.465	2.54
EPA 8276	Chlordane	82.9	81.1	83.6	92.9	2.29	10.6
	Toxaphene	101	98.7	103	117	2.31	12.2
EPA 8321B	2,4-D	97.1		128	122		4.60
	2,4,5-T	103		107	105		1.50
	3-Hydroxycarbofuran	83.1		97.8	91.3		6.87
	Acesulfame K	94.1		84.9	81.4		3.94
	Acetaminophen	62.1		81.9	89.9		9.36
	Acetamiprid	88.6		94.5	103		8.91
	Afidopyropen	80.4		79.5	92.5		15.1
	Aldicarb	103		90.0	57.8		43.6
	Aldicarb Sulfone	88.8		108	104		4.41
	Aldicarb Sulfoxide	77.5		68.8	65.7		4.61
	AMPA	89.9		72.3	70.9		1.92
	Bentazon	110		102	94.0		8.47
	Benzovindiflupyr	96.8		97.1	98.2		1.20
	Carbamazepine	91.1		102	103		0.696
	Carbaryl	63.4		49.0	46.4		5.43
	Carbofuran	60.4		52.6	45.7		14.1
	Clothianidin	76.1		90.4	97.1		7.13
	Dinotefuran	71.4		85.7	92.2		7.30
	Diuron	88.2		75.4	79.8		5.56
	Endothall	88.2		93.1	103		10.5
	Fenuron	103		104	102		2.56
	Fluridone	89.3		80.8	85.2		5.29
	Glufosinate	104		105	95.8		8.87
	Glyphosate	104		99.6	90.0		8.49
	Hydrocodone	78.7		94.3	88.8		5.95

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8321B	Ibuprofen	82.6	80.6	79.1			1.86
	Imazapyr	97.3	103	117			7.71
	Imidacloprid	78.0	116	130			12.1
	Linuron	81.4	79.9	74.9			6.44
	Mandestrobin	99.1	95.5	98.8			3.39
	MCPP	105	119	121			1.91
	Methiocarb	75.1	68.5	69.3			1.13
	Methomyl	72.1	68.6	69.0			0.568
	Naproxen	84.6	78.9	106			29.7
	Oxamyl	88.6	89.6	81.0			10.0
	Primidone	95.2	99.4	124			21.9
	Propoxur	65.9	51.0	46.3			9.66
	Pyraclostrobin	90.2	96.1	98.9			2.81
	Sucralose	113	38.7	52.0			27.3
	Thiamethoxam	82.0	108	122			12.3
	Tolfenpyrad	57.3	59.9	56.5			5.84
	Triclopyr	96.0	113	119			5.64
SM 2320 B-2011	Total Alkalinity	99.9				0.417	
SM 4500 F-C-2011	Fluoride	99.3	95.2	95.9			0.502
SM 5310 B-2011	Organic Carbon	99.8	98.8	98.4			0.289

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2251426
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2251445
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2251445
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2251427
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2251427
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2251427
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2251427
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2251428
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2251433, 2251435
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2251434
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2251433
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2251431
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2251432
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2251432
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2251426
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2251426
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2251426
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2251427

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	06/02/2021			06/02/2021 15:46	Sarah A Nixon	2251426
EPA 200.7 Rev. 4.4	06/02/2021	06/02/2021 14:00	Elliott D. Healy	06/04/2021 03:21	Betina Topolski	2251445
	06/02/2021	06/02/2021 14:00	Elliott D. Healy	06/04/2021 03:33	Betina Topolski	2251445
EPA 200.8 Rev. 5.4	06/02/2021	06/02/2021 14:00	Elliott D. Healy	06/04/2021 21:04	Alexander Thompson	2251445
	06/02/2021	06/02/2021 14:00	Elliott D. Healy	06/07/2021 12:32	Alexander Thompson	2251445
EPA 350.1 Rev. 2.0	06/02/2021			06/10/2021 13:03	Roberta Tatti	2251427
EPA 351.2 Rev. 2.0	06/02/2021	06/03/2021 13:01	Benjamin T. Nordmann	06/04/2021 10:32	Virginia P. Brown	2251427
EPA 353.2 Rev. 2.0	06/02/2021			06/03/2021 10:30	Beverly Y. Sanders	2251427
EPA 365.1 Rev. 2.0	06/02/2021	06/11/2021 14:33	Madeline Gruver	06/14/2021 08:30	Shengyu Ding	2251427
EPA 365.1 Rev. 2.0 dissolved	06/02/2021			06/02/2021 17:37	Ping Hua	2251428
EPA 8270E	06/02/2021	06/07/2021 08:00	Fe-Val Siddell	06/08/2021 18:27	Vandana T. Nagar	2251434
	06/02/2021	06/07/2021 08:00	Fe-Val Siddell	06/11/2021 21:05	Vandana T. Nagar	2251434
	06/02/2021	06/07/2021 08:00	Fe-Val Siddell	06/15/2021 14:28	Vandana T. Nagar	2251434
	06/02/2021	06/07/2021 08:00	Rasheda Ghaffari	06/11/2021 18:56	Michael Poppell	2251433
	06/02/2021	06/07/2021 08:00	Rasheda Ghaffari	06/11/2021 19:25	Michael Poppell	2251435
EPA 8276	06/02/2021	06/07/2021 08:00	Rasheda Ghaffari	06/11/2021 01:27	Chiran X. Ghimire	2251433
EPA 8321B	06/02/2021	06/02/2021 11:30	Juyoung Kim	06/02/2021 17:44	Pramila Ghimire	2251432
	06/02/2021	06/02/2021 11:30	Juyoung Kim	06/03/2021 09:00	Juyoung Kim	2251432
	06/02/2021	06/03/2021 09:00	Hoor Shaik	06/04/2021 01:49	Juyoung Kim	2251431
	06/02/2021	06/07/2021 09:00	Hoor Shaik	06/12/2021 03:32	Juyoung Kim	2251432
SM 2320 B-2011	06/02/2021			06/06/2021 19:25	Dale L. Simmons	2251426
SM 2540 D-2011	06/02/2021			06/04/2021 14:29	Yijie Li	2251426
SM 4500 F-C-2011	06/02/2021			06/04/2021 21:24	Dale L. Simmons	2251426
SM 5310 B-2011	06/02/2021			06/15/2021 12:24	Madeline Gruver	2251427