

Chemical Analysis Report

CEN-DIST-2020-12-15-01

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

Event Description: **Reedy Creek**
Request ID: **RQ-2020-12-14-10**
Customer: **CEN-DIST**
Project ID: **SMP**

Send Reports to:
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3319 Maguire Blvd., Suite 232
Orlando, FL 32803-3767
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Certified by: Thekkekalathil Chandrasekhar, Chemist Administrator

Date Certified: 05-JAN-2021 14:52



Case Narrative

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

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

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

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

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

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

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

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

Precision is reported as relative percent difference unless otherwise noted.

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

QC Codes used in this report may include:

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

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

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

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

Sample Location: Livingston Creek @ Rucks Dairy Rd.

Collection Date/Time: 12/14/2020 12:06

Field ID: G4CE0194

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2213255	EPA 180.1 Rev. 2.0	Turbidity	3.4	A	NTU	P391261	
	EPA 300.0 Rev. 2.1	Chloride	17		mg Cl/L	P391347	
		Sulfate	29		mg SO4/L	P391349	
	SM 2120 B-2011	Color (true)	140		PCU	P391194	
	SM 2320 B-2011	Total Alkalinity	22		mg CaCO3/L	P391317	
	SM 2540 C-2011	TDS	126		mg/L	P391664	
	SM 2540 D-2011	TSS	6	I	mg/L	P391638	
	SM 4500 F-C-2011	Fluoride	0.079	I	mg F/L	P391320	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.24		mg N/L	P391489	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P391650	
2213256	EPA 353.2 Rev. 2.0	NO2NO3-N	0.28		mg N/L	P391256	
	EPA 365.1 Rev. 2.0	Total-P	0.073		mg P/L	P391616	
	SM 5310 B-2011	Organic Carbon	15		mg C/L	P391366	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P391224	
	EPA 8321B	Aldicarb	0.020	U	ug/L	P391140	
2213257		Aldicarb Sulfone	0.0020	U	ug/L	P391140	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P391140	
		Carbaryl	0.0020	U	ug/L	P391140	
		Carbofuran	0.0020	U	ug/L	P391140	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P391140	
		Methiocarb	0.0020	U	ug/L	P391140	
		Methomyl	0.0020	U	ug/L	P391140	
		Oxamyl	0.0020	U	ug/L	P391140	
		Propoxur	0.0020	U	ug/L	P391140	
		2,4-D	0.0020	U	ug/L	P391438	
2213268		Acesulfame K**	0.10	U	ug/L	P391314	
		AMPA**	0.10	U	ug/L	P391314	
		Sucralose**	0.16		ug/L	P391314	
		Acetaminophen**	0.0080	U	ug/L	P391438	RPD
		Acetamiprid**	0.0020	U	ug/L	P391438	
		Endothal**	0.25	U	ug/L	P391314	
		Glufosinate**	0.10	U	ug/L	P391314	
		Glyphosate**	0.10	U	ug/L	P391314	
		Afidopyropen**	0.0020	U	ug/L	P391438	
		Bentazon	0.0021	I	ug/L	P391438	
		Benzovindiflupyr**	0.0020	U	ug/L	P391438	
		Carbamazepine**	8.0E-04	U	ug/L	P391438	
		Clothianidin**	0.0020	U	ug/L	P391438	
		Dinotefuran**	0.0020	U	ug/L	P391438	
		Diuron	0.0020	U	ug/L	P391438	
		Fenuron	0.016	U	ug/L	P391438	
		Fluridone**	8.0E-04	U	ug/L	P391438	
		Imazapyr**	0.0044	I	ug/L	P391438	MS

Field ID: G4CE0194

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2213268	EPA 8321B	Hydrocodone**	0.0020	U	ug/L	P391438	
		Ibuprofen**	0.020	U	ug/L	P391438	
		Imidacloprid	0.050		ug/L	P391438	
		Linuron	0.0040	U	ug/L	P391438	
		Mandestrobin**	0.0020	U	ug/L	P391438	
		MCP	0.0020	U	ug/L	P391438	
		Naproxen**	0.0080	U	ug/L	P391438	
		Primidone**	0.0040	U	ug/L	P391438	
		Pyraclostrobin**	0.0020	U	ug/L	P391438	
		Thiamethoxam**	0.0048	I	ug/L	P391438	
		Tolfenpyrad**	0.0020	U	ug/L	P391438	
		Triclopyr**	0.0040	U	ug/L	P391438	
2213275	EPA 8270E	Aldrin	4.3	U	ng/L	P391086	
		Alpha-BHC	2.1	U	ng/L	P391086	
		Alpha-Chlordane	1.1	U	ng/L	P391086	
		Beta-BHC	8.6	U	ng/L	P391086	
		Beta-Cyfluthrin**	16	U	ng/L	P391086	
		Bifenthrin**	4.3	U	ng/L	P391086	
		Delta-BHC	8.6	U	ng/L	P391086	
		Gamma-BHC	8.6	U	ng/L	P391086	
		Chlorothalonil	2.1	U	ng/L	P391086	
		Cis-Nonachlor**	1.1	U	ng/L	P391086	
		Cypermethrin	21	U	ng/L	P391086	
		Dacthal**	1.1	U	ng/L	P391086	
		DDD-p,p'	5.4	U	ng/L	P391086	
		DDE-p,p'	5.4	U	ng/L	P391086	
		DDT-p,p'	6.4	U	ng/L	P391086	
		Deltamethrin**	21	U	ng/L	P391086	
		Dicofol	32	U	ng/L	P391086	
		Dieldrin	4.3	U	ng/L	P391086	
		Endosulfan I	4.3	U	ng/L	P391086	
		Endosulfan II	4.3	U	ng/L	P391086	
		Endosulfan Sulfate	2.1	U	ng/L	P391086	
		Endrin	2.1	U	ng/L	P391086	
		Endrin Aldehyde	2.1	U	ng/L	P391086	
		Endrin Ketone	2.1	U	ng/L	P391086	
		Ethalfuralin**	3.2	U	ng/L	P391086	MS
		Gamma-Chlordane	1.1	U	ng/L	P391086	
		Dichlobenil**	2.1	U	ng/L	P391086	
		Esfenvalerate**	21	U	ng/L	P391086	
		Fenpropathrin**	11	U	ng/L	P391086	MS
		Heptachlor	1.6	U	ng/L	P391086	
		Heptachlor Epoxide	2.1	U	ng/L	P391086	
		Hexachlorobenzene	2.1	U	ng/L	P391086	
		Lambda-Cyhalothrin**	16	U	ng/L	P391086	

Field ID: G4CE0194

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2213275	EPA 8270E	Methoxychlor	4.3	U	ng/L	P391086	
		Mirex	2.1	U	ng/L	P391086	
		MGK-264**	3.2	U	ng/L	P391086	
		Permethrin	11	U	ng/L	P391086	
		Phenothrin**	32	U	ng/L	P391086	
		Piperonyl Butoxide**	1.6	U	ng/L	P391086	
		Prallethrin**	27	U	ng/L	P391086	
		Tau-Fluvalinate**	3.7	U	ng/L	P391086	MS
		Tetramethrin**	8.6	U	ng/L	P391086	
		Trans-Nonachlor**	1.1	U	ng/L	P391086	
		Triclosan Methyl**	1.1	U	ng/L	P391086	
		Trifluralin	2.7	U	ng/L	P391086	MS
		Chlordane	5.4	U	ng/L	P391086	
		Toxaphene	32	UJ	ng/L	P391086	CCV
2213276	EPA 8270E	Acetochlor	0.24	U	ng/L	P391270	
		Alachlor	0.24	U	ng/L	P391270	
		Ametryn	0.58	U	ng/L	P391270	
		Atrazine	1.3		ng/L	P391270	
		Atrazine Desethyl	1.5	UJ	ng/L	P391270	RPD
		Azinphos Methyl	1.9	UJ	ng/L	P391270	LCS, MS
		Azoxystrobin**	0.49	UJ	ng/L	P391270	LCS, RPD
		Bromacil	230	J	ng/L	P391270	RPD
		Butylate	0.39	U	ng/L	P391270	
		Carbophenothion	0.49	U	ng/L	P391270	
		Carfentrazone Ethyl**	0.097	U	ng/L	P391270	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P391270	
		Chlorpyrifos Methyl	0.049	U	ng/L	P391270	
		Cyanazine	3.2	UJ	ng/L	P391270	RPD
		Demeton	1.5	U	ng/L	P391270	
		Diazinon	0.12	U	ng/L	P391270	
		Difenoconazole**	0.58	UJ	ng/L	P391270	RPD
		Dimethenamid**	0.097	U	ng/L	P391270	
		Disulfoton	0.49	U	ng/L	P391270	
		Dithiopyr**	0.097	U	ng/L	P391270	
		EPTC	1.2	U	ng/L	P391270	
		Ethion	0.15	U	ng/L	P391270	
		Ethoprop	0.097	U	ng/L	P391270	RPD
		Fenamiphos	0.49	U	ng/L	P391270	
		Fenbuconazole**	0.34	IJ	ng/L	P391270	RPD
		Fipronil	0.24	UJ	ng/L	P391270	RPD
		Fipronil Desulfinyl**	0.12	U	ng/L	P391270	
		Fipronil Sulfide	0.15	U	ng/L	P391270	
		Fipronil Sulfone	0.15	U	ng/L	P391270	
		Fluazifop-P-butyl**	0.097	U	ng/L	P391270	
		Fludioxonil**	0.12	UJ	ng/L	P391270	RPD

Field ID: G4CE0194

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2213276	EPA 8270E	Flumioxazin**	1.7	U	ng/L	P391270	
		Flutolanil**	0.097	U	ng/L	P391270	
		Fluxapyroxad**	0.097	UJ	ng/L	P391270	RPD
		Fonofos	0.19	U	ng/L	P391270	
		Hexazinone	6.8	J	ng/L	P391270	RPD
		Imazalil**	0.73	UJ	ng/L	P391270	RPD
		Iprodione**	0.58	U	ng/L	P391270	
		Malathion	0.34	U	ng/L	P391270	
		Metaxyl	7.3	J	ng/L	P391270	RPD
		Metolachlor	0.49	U	ng/L	P391270	
		Metribuzin	3.2	U	ng/L	P391270	
		Mevinphos	0.49	UJ	ng/L	P391270	LCS, MS
		Molinate	0.29	U	ng/L	P391270	
		Myclobutanil**	0.24	UJ	ng/L	P391270	RPD
		Naled**	1.5	U	ng/L	P391270	
		Norflurazon	140	J	ng/L	P391270	RPD
		Oxadiazon	0.097	U	ng/L	P391270	
		Oxyfluorfen**	0.15	U	ng/L	P391270	
		Parathion Ethyl	0.24	U	ng/L	P391270	RPD
		Parathion Methyl	0.53	U	ng/L	P391270	
		Pendimethalin	0.97	U	ng/L	P391270	
		Phorate	0.24	U	ng/L	P391270	
		Prodiamine**	0.17	U	ng/L	P391270	
		Prometon	0.87	U	ng/L	P391270	
		Prometryn	0.19	UJ	ng/L	P391270	LCS
		Pronamide**	0.15	U	ng/L	P391270	
		Propiconazole**	0.49	UJ	ng/L	P391270	RPD
		Pyriproxyfen**	0.12	U	ng/L	P391270	
		Simazine	2.0		ng/L	P391270	
		Sulfentrazone**	0.49	UJ	ng/L	P391270	RPD
		Tebuconazole**	0.49	UJ	ng/L	P391270	RPD
		Terbufos	0.097	U	ng/L	P391270	RPD
		Terbutylazine	0.41	U	ng/L	P391270	

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: MS accuracy for bentazon could not be assessed due to high concentration of parameter in the spiked sample.
EPA 8276: 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.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P391261

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P391347

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P391349

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391489

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P391650

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P391256

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P391616

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P391224

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

Reference Method: EPA 8270E
Batch ID: P391086

Component	Result	Code	Units
Aldrin	4.0	U	ng/L
Alpha-BHC	2.0	U	ng/L
Alpha-Chlordane	1.0	U	ng/L
Beta-BHC	8.0	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P391086

Component	Result	Code	Units
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
Dicofol	30	U	ng/L
Dieldrin	4.0	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
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 8270E
Batch ID: P391270

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E
 Batch ID: P391270

Component	Result	Code	Units
Azoxystrobin	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Carbophenothion	0.50	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Cyanazine	3.2	U	ng/L
Demeton	1.5	U	ng/L
Diazinon	0.12	U	ng/L
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.10	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.12	U	ng/L
Flumioxazin	1.8	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.75	U	ng/L
Iprodione	0.60	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.75	U	ng/L
Metolachlor	0.50	U	ng/L
Metribuzin	3.2	U	ng/L
Mevinphos	0.50	U	ng/L
Molinate	0.30	U	ng/L
Myclobutanil	0.25	U	ng/L
Naled	1.5	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.10	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.25	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Pronamide	0.15	U	ng/L
Propiconazole	0.50	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E
Batch ID: P391270

Component	Result	Code	Units
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 8276
Batch ID: P391086

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

Reference Method: EPA 8321B
Batch ID: P391140

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: EPA 8321B
Batch ID: P391314

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

Reference Method: EPA 8321B
Batch ID: P391438

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P391438

Component	Result	Code	Units
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.030	I	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2120 B-2011
Batch ID: P391194

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P391317

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

Reference Method: SM 2540 C-2011
Batch ID: P391664

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P391638

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P391320

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P391366

Component	Result	Code	Units
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Quality Assurance Report

Method Blank Results

Reference Method: SM 5310 B-2011
Batch ID: P391366

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P391347

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

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P391349

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

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P391489

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

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P391650

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: P391256

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: P391616

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P391224

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

Reference Method: EPA 8270E
 Batch ID: P391086

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	58.7	62.2	P/P	20 - 87.0
Alpha-BHC	82.7	87.9	P/P	65 - 142
Alpha-Chlordane	81.3	88.8	P/P	58 - 106
Beta-BHC	96.3	100	P/P	65 - 179
Beta-Cyfluthrin	118	118	P/P	39 - 153
Bifenthrin	87.6	94.0	P/P	38 - 128
Chlorothalonil	92.0	98.1	P/P	20 - 214
Cis-Nonachlor	83.8	92.3	P/P	56 - 113
Cypermethrin	106	112	P/P	37 - 130
Dacthal	90.5	97.2	P/P	75 - 109

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P391086

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
DDD-p,p'	88.2	97.0	P/P	66 - 119
DDE-p,p'	79.0	86.9	P/P	53 - 108
DDT-p,p'	82.2	86.3	P/P	57 - 133
Delta-BHC	144	147	P/P	68 - 187
Deltamethrin	116	121	P/P	50 - 200
Dichlobenil	73.3	73.9	P/P	25 - 140
Dicofol	82.4	99.7	P/P	66 - 123
Dieldrin	83.5	91.8	P/P	65 - 111
Endosulfan I	91.9	97.5	P/P	65 - 115
Endosulfan II	94.0	102	P/P	68 - 133
Endosulfan Sulfate	108	112	P/P	62 - 127
Endrin	86.5	96.6	P/P	64 - 122
Endrin Aldehyde	84.8	109	P/P	61 - 132
Endrin Ketone	91.7	94.7	P/P	66 - 120
Esfenvalerate	102	106	P/P	50 - 150
Ethalfuralin	77.9	81.4	P/P	57 - 127
Fenpropathrin	128	143	P/P	60 - 160
Gamma-BHC	102	108	P/P	71 - 158
Gamma-Chlordane	78.5	85.4	P/P	53 - 106
Heptachlor	69.0	75.0	P/P	45 - 96.0
Heptachlor Epoxide	83.7	89.8	P/P	64 - 109
Hexachlorobenzene	64.5	70.4	P/P	46 - 103
Lambda-Cyhalothrin	113	117	P/P	38 - 145
Methoxychlor	89.9	94.5	P/P	69 - 149
MGK-264	79.7	88.2	P/P	50 - 150
Mirex	71.4	75.0	P/P	31 - 90.0
Permethrin	85.4	91.5	P/P	41 - 108
Phenothrin	72.4	77.2	P/P	22 - 91.0
Piperonyl Butoxide	94.8	101	P/P	50 - 150
Prallethrin	71.1	85.1	P/P	32 - 92.0
Tau-Fluvalinate	132	135	P/P	50 - 150
Tetramethrin	109	133	P/P	60 - 160
Trans-Nonachlor	79.9	87.7	P/P	50 - 107
Triclosan Methyl	94.4	103	P/P	50 - 150
Trifluralin	78.2	81.4	P/P	58 - 119

Reference Method: EPA 8270E

Batch ID: P391270

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	77.9	98.4	P/P	71 - 122
Alachlor	85.6	111	P/P	70 - 121
Ametryn	107	131	P/P	49 - 137
Atrazine	80.7	108	P/P	76 - 125
Atrazine Desethyl	90.6	138	P/P	31 - 144
Azinphos Methyl	138	183	P/F	67 - 150
Azoxystrobin	69.4	125	F/P	70 - 170
Bromacil	74.2	110	P/P	36 - 121
Butylate	72.3	82.4	P/P	33 - 88.0
Carbophenothion	85.2	106	P/P	66 - 116
Carfentrazone Ethyl	91.4	120	P/P	50 - 150
Chlorpyrifos Ethyl	73.5	90.2	P/P	73 - 117

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P391270

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlorpyrifos Methyl	84.5	98.6	P/P	68 - 121
Cyanazine	82.1	120	P/P	20 - 250
Demeton	81.1	98.0	P/P	30 - 123
Diazinon	84.8	112	P/P	70 - 128
Difenoconazole	87.5	138	P/P	50 - 150
Dimethenamid	83.0	104	P/P	66 - 122
Disulfoton	82.1	98.3	P/P	46 - 124
Dithiopyr	78.6	97.7	P/P	69 - 122
EPTC	65.2	73.6	P/P	31 - 90.0
Ethion	65.7	81.5	P/P	45 - 135
Ethoprop	83.8	107	P/P	59 - 118
Fenamiphos	82.6	109	P/P	30 - 136
Fenbuconazole	71.3	137	P/P	50 - 150
Fipronil	86.7	119	P/P	57 - 127
Fipronil Desulfinyl	84.8	107	P/P	51 - 122
Fipronil Sulfide	99.8	106	P/P	57 - 119
Fipronil Sulfone	80.6	92.2	P/P	51 - 119
Fluazifop-P-butyl	92.0	119	P/P	50 - 150
Fludioxonil	83.4	116	P/P	50 - 150
Flumioxazin	114	150	P/P	20 - 250
Flutolanil	92.6	124	P/P	50 - 150
Fluxapyroxad	70.8	102	P/P	50 - 150
Fonofos	83.7	91.9	P/P	60 - 120
Hexazinone	60.6	117	P/P	57 - 142
Imazalil	62.3	135	P/P	30 - 139
Iprodione	75.6	94.0	P/P	50 - 150
Malathion	76.5	92.4	P/P	67 - 128
Metaxyl	74.1	115	P/P	21 - 148
Metolachlor	71.3	94.0	P/P	70 - 120
Metribuzin	86.8	112	P/P	20 - 250
Mevinphos	108	140	P/F	47 - 116
Molinate	77.1	88.6	P/P	41 - 99.0
Myclobutanil	69.6	126	P/P	50 - 150
Naled	48.1	55.9	P/P	38 - 97.0
Norflurazon	74.4	112	P/P	54 - 127
Oxadiazon	81.1	106	P/P	65 - 122
Oxyfluorfen	103	134	P/P	50 - 150
Parathion Ethyl	79.4	106	P/P	71 - 113
Parathion Methyl	93.6	122	P/P	73 - 129
Pendimethalin	68.3	83.3	P/P	63 - 130
Phorate	70.8	76.9	P/P	48 - 118
Prodiamine	35.8	43.3	P/P	20 - 144
Prometon	83.1	110	P/P	53 - 120
Prometryn	94.8	124	P/F	63 - 119
Pronamide	87.8	110	P/P	81 - 122
Propiconazole	80.3	112	P/P	62 - 124
Pyriproxyfen	88.2	112	P/P	50 - 150
Simazine	93.9	124	P/P	77 - 129
Sulfentrazone	65.6	120	P/P	20 - 137
Tebuconazole	48.7	78.5	P/P	20 - 118
Terbufos	74.5	92.1	P/P	61 - 119
Terbutylazine	79.2	100	P/P	75 - 119

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8276

Batch ID: P391086

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	80.8	83.0	P/P	47 - 119
Toxaphene	79.4	76.1	P/P	41 - 112

Reference Method: EPA 8321B

Batch ID: P391140

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	74.7		P	30 - 160
Aldicarb	55.8		P	30 - 150
Aldicarb Sulfone	80.3		P	30 - 160
Aldicarb Sulfoxide	78.8		P	30 - 160
Carbaryl	79.7		P	30 - 160
Carbofuran	74.0		P	30 - 160
Methiocarb	74.3		P	30 - 160
Methomyl	85.7		P	30 - 160
Oxamyl	81.7		P	30 - 160
Propoxur	74.4		P	30 - 160

Reference Method: EPA 8321B

Batch ID: P391314

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	106		P	40 - 150
AMPA	93.5		P	40 - 150
Endothall	90.9		P	40 - 150
Glufosinate	96.9		P	40 - 150
Glyphosate	92.3		P	40 - 140
Sucralose	105		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P391438

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	68.4		P	30 - 160
Acetaminophen	68.2		P	30 - 150
Acetamiprid	96.5		P	30 - 160
Afidopyropen	70.6		P	30 - 160
Bentazon	52.0		P	30 - 150
Benzovindiflupyr	83.9		P	30 - 160
Carbamazepine	66.9		P	30 - 160
Clothianidin	87.6		P	30 - 160
Dinotefuran	82.9		P	30 - 160
Diuron	54.9		P	30 - 160
Fenuron	97.0		P	30 - 160
Fluridone	73.6		P	30 - 160
Hydrocodone	92.6		P	30 - 160
Ibuprofen	50.3		P	30 - 160
Imazapyr	68.4		P	30 - 160
Imidacloprid	96.9		P	30 - 160
Linuron	62.6		P	30 - 160
Mandestrobin	81.0		P	30 - 160
MCPP	80.0		P	30 - 160

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P391438

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Naproxen	48.0		P	30 - 160
Primidone	73.8		P	30 - 160
Pyraclostrobin	72.2		P	30 - 160
Thiamethoxam	91.6		P	30 - 160
Tolfenpyrad	49.7		P	30 - 160
Triclopyr	69.6		P	30 - 160

Reference Method: SM 2120 B-2011
Batch ID: P391194

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

Reference Method: SM 2320 B-2011
Batch ID: P391317

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	93 - 104

Reference Method: SM 4500 F-C-2011
Batch ID: P391320

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.8		P	90 - 106

Reference Method: SM 5310 B-2011
Batch ID: P391366

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.7		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P391347

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2213228	Chloride	100	101	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P391349

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2213228	Sulfate	100	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P391489

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2213318	Ammonia-N	97.6	96.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P391650

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2213284	Kjeldahl Nitrogen	97.1	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P391256

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2213261	NO2NO3-N	96.2	95.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P391616

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2213256	Total-P	106	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P391224

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2213250	O-Phosphate-P	104	105	P/P	90 - 110

Reference Method: EPA 8270E
 Batch ID: P391086

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2212441	Aldrin	62.2	57.4	P/P	32 - 82.0
2212441	Alpha-BHC	90.1	84.5	P/P	68 - 157
2212441	Alpha-Chlordane	82.1	74.3	P/P	54 - 108
2212441	Beta-BHC	94.6	87.0	P/P	54 - 200
2212441	Beta-Cyfluthrin	139	124	P/P	50 - 154
2212441	Bifenthrin	90.3	88.0	P/P	49 - 124
2212441	Chlorothalonil	151	162	P/P	10 - 289
2212441	Cis-Nonachlor	85.8	78.5	P/P	53 - 112
2212441	Cypermethrin	111	105	P/P	43 - 141
2212441	Dacthal	96.8	88.8	P/P	75 - 112

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P391086

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2212441	DDD-p,p'	91.2	85.5	P/P	58 - 125
2212441	DDE-p,p'	81.3	74.8	P/P	50 - 108
2212441	DDT-p,p'	81.5	77.1	P/P	52 - 140
2212441	Delta-BHC	201	191	P/P	61 - 228
2212441	Deltamethrin	117	121	P/P	50 - 200
2212441	Dichlobenil	75.5	63.0	P/P	25 - 140
2212441	Dicofol	74.5	73.2	P/P	59 - 130
2212441	Dieldrin	87.2	79.3	P/P	57 - 121
2212441	Endosulfan I	104	93.6	P/P	62 - 123
2212441	Endosulfan II	117	90.3	P/P	48 - 163
2212441	Endosulfan Sulfate	121	111	P/P	63 - 132
2212441	Endrin	90.8	81.3	P/P	58 - 128
2212441	Endrin Aldehyde	84.7	80.6	P/P	44 - 126
2212441	Endrin Ketone	92.0	88.1	P/P	68 - 127
2212441	Esfenvalerate	113	95.8	P/P	50 - 150
2212441	Ethalfuralin	134	121	F/P	55 - 131
2212441	Fenpropathrin	205	176	F/F	60 - 160
2212441	Gamma-BHC	111	104	P/P	54 - 206
2212441	Gamma-Chlordane	79.0	71.4	P/P	52 - 105
2212441	Heptachlor	70.2	60.7	P/P	47 - 94.0
2212441	Heptachlor Epoxide	84.1	77.1	P/P	61 - 113
2212441	Hexachlorobenzene	59.1	55.0	P/P	45 - 100
2212441	Lambda-Cyhalothrin	151	145	P/P	37 - 165
2212441	Methoxychlor	92.1	87.8	P/P	63 - 153
2212441	MGK-264	89.9	83.7	P/P	50 - 150
2212441	Mirex	71.8	66.4	P/P	38 - 90.0
2212441	Permethrin	90.1	86.3	P/P	45 - 112
2212441	Phenothrin	77.2	76.4	P/P	22 - 118
2212441	Piperonyl Butoxide	102	98.7	P/P	50 - 150
2212441	Prallethrin	76.4	72.4	P/P	21 - 114
2212441	Tau-Fluvalinate	153	135	F/P	50 - 150
2212441	Tetramethrin	153	134	P/P	60 - 160
2212441	Trans-Nonachlor	79.6	69.4	P/P	50 - 103
2212441	Triclosan Methyl	97.0	91.6	P/P	50 - 150
2212441	Trifluralin	127	117	F/P	57 - 122

Reference Method: EPA 8270E
Batch ID: P391270

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2213074	Acetochlor	71.0	83.1	P/P	68 - 126
2213074	Alachlor	87.6	107	P/P	66 - 125
2213074	Ametryn	111	137	P/P	31 - 182
2213074	Atrazine	94.0	112	P/P	68 - 137
2213074	Atrazine Desethyl	81.2	105	P/P	13 - 161
2213074	Azinphos Methyl	152	191	P/F	54 - 162
2213074	Azoxystrobin	72.9	71.5	P/P	70 - 170
2213074	Bromacil	80.4	86.1	P/P	34 - 144
2213074	Butylate	66.9	77.1	P/P	16 - 92.0
2213074	Carbophenothion	80.0	102	P/P	30 - 131
2213074	Carfentrazone Ethyl	91.2	113	P/P	50 - 150
2213074	Chlorpyrifos Ethyl	67.1	86.6	P/P	63 - 124

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P391270

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2213074	Chlorpyrifos Methyl	81.2	101	P/P	64 - 125
2213074	Cyanazine	93.9	123	P/P	13 - 245
2213074	Demeton	79.5	104	P/P	20 - 154
2213074	Diazinon	84.8	106	P/P	66 - 141
2213074	Difenoconazole	99.5	95.9	P/P	50 - 150
2213074	Dimethenamid	77.7	89.1	P/P	50 - 130
2213074	Disulfoton	85.7	116	P/P	55 - 130
2213074	Dithiopyr	76.0	91.2	P/P	66 - 122
2213074	EPTC	56.9	60.1	P/P	15 - 93.0
2213074	Ethion	58.1	55.1	P/P	15 - 148
2213074	Ethoprop	80.2	112	P/P	59 - 126
2213074	Fenamiphos	73.3	69.4	P/P	39 - 137
2213074	Fenbuconazole	85.8	104	P/P	50 - 150
2213074	Fipronil	88.8	110	P/P	47 - 131
2213074	Fipronil Desulfinyl	80.4	99.6	P/P	43 - 121
2213074	Fipronil Sulfide	91.4	94.3	P/P	29 - 134
2213074	Fipronil Sulfone	76.1	101	P/P	19 - 131
2213074	Fluazifop-P-butyl	87.9	110	P/P	50 - 150
2213074	Fludioxonil	77.9	98.2	P/P	50 - 150
2213074	Flumioxazin	110	119	P/P	10 - 300
2213074	Flutolanil	89.7	103	P/P	50 - 150
2213074	Fluxapyroxad	72.3	80.7	P/P	50 - 150
2213074	Fonofos	85.0	107	P/P	62 - 128
2213074	Hexazinone	75.0	98.0	P/P	58 - 154
2213074	Imazalil	65.1	71.8	P/P	10 - 215
2213074	Iprodione	72.2	84.9	P/P	50 - 150
2213074	Malathion	70.2	86.9	P/P	54 - 135
2213074	Metalaxyl	80.6	107	P/P	46 - 136
2213074	Metolachlor	70.5	86.6	P/P	62 - 126
2213074	Metribuzin	85.3	111	P/P	44 - 277
2213074	Mevinphos	103	138	P/F	44 - 135
2213074	Molinate	72.6	86.3	P/P	31 - 104
2213074	Myclobutanil	89.8	99.3	P/P	50 - 150
2213074	Naled	41.4	45.5	P/P	33 - 113
2213074	Norflurazon	82.3	97.0	P/P	32 - 134
2213074	Oxadiazon	80.2	98.3	P/P	55 - 123
2213074	Oxyfluorfen	111	137	P/P	50 - 150
2213074	Parathion Ethyl	80.0	110	P/P	67 - 120
2213074	Parathion Methyl	102	129	P/P	70 - 140
2213074	Pendimethalin	83.6	112	P/P	59 - 145
2213074	Phorate	69.2	90.3	P/P	52 - 127
2213074	Prodiamine	47.7	56.4	P/P	11 - 157
2213074	Prometon	83.2	105	P/P	55 - 130
2213074	Prometryn	93.6	122	P/P	55 - 127
2213074	Pronamide	88.8	120	P/P	66 - 150
2213074	Propiconazole	86.8	102	P/P	14 - 178
2213074	Pyriproxyfen	82.7	94.3	P/P	50 - 150
2213074	Simazine	92.6	119	P/P	58 - 159
2213074	Sulfentrazone	79.4	101	P/P	21 - 144
2213074	Tebuconazole	51.7	44.4	P/P	10 - 122
2213074	Terbufos	76.9	106	P/P	65 - 131
2213074	Terbutylazine	77.2	99.9	P/P	63 - 131

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8276
Batch ID: P391086

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2212447	Chlordane	87.8	90.1	P/P	34 - 129
2212447	Toxaphene	93.4	92.0	P/P	16 - 148

Reference Method: EPA 8321B
Batch ID: P391140

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2212044	3-Hydroxycarbofuran	52.8	47.4	P/P	30 - 160
2212044	Aldicarb	39.7	41.3	P/P	30 - 150
2212044	Aldicarb Sulfone	45.7	45.7	P/P	30 - 160
2212044	Aldicarb Sulfoxide	34.7	33.8	P/P	30 - 160
2212044	Carbaryl	49.6	44.5	P/P	30 - 160
2212044	Carbofuran	46.8	46.9	P/P	30 - 160
2212044	Methiocarb	57.4	50.1	P/P	30 - 160
2212044	Methomyl	56.8	53.3	P/P	30 - 160
2212044	Oxamyl	60.6	54.5	P/P	30 - 160
2212044	Propoxur	46.4	45.8	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P391314

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2213076	Acesulfame K	110	109	P/P	40 - 150
2213076	AMPA	130	144	P/P	40 - 150
2213076	Endothall	106	117	P/P	40 - 150
2213076	Glufosinate	95.1	110	P/P	40 - 150
2213076	Glyphosate	72.1	89.2	P/P	40 - 140
2213076	Sucralose	104	109	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P391438

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2212466	2,4-D	60.9	71.6	P/P	30 - 160
2212466	Acetaminophen	63.8	107	P/P	30 - 150
2212466	Acetamiprid	93.8	90.8	P/P	30 - 160
2212466	Afidopyropen	58.9	70.8	P/P	30 - 160
2212466	Benzovindiflupyr	74.6	74.7	P/P	30 - 160
2212466	Carbamazepine	58.9	59.8	P/P	30 - 160
2212466	Clothianidin	73.6	73.0	P/P	30 - 160
2212466	Dinotefuran	98.1	97.0	P/P	30 - 160
2212466	Diuron	42.3	40.6	P/P	30 - 160
2212466	Fenuron	76.9	77.6	P/P	30 - 160
2212466	Fluridone	69.6	58.1	P/P	30 - 160
2212466	Hydrocodone	101	102	P/P	30 - 160
2212466	Ibuprofen	37.2	48.6	P/P	30 - 160
2212466	Imazapyr	15.0	13.7	F/F	30 - 160
2212466	Imidacloprid	128	123	P/P	30 - 160
2212466	Linuron	56.1	58.4	P/P	30 - 160
2212466	Mandestrobin	70.8	68.2	P/P	30 - 160
2212466	MCP	65.5	65.3	P/P	30 - 160
2212466	Naproxen	35.2	42.7	P/P	30 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P391438

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2212466	Primidone	69.4	71.7	P/P	30 - 160
2212466	Pyraclostrobin	73.9	75.0	P/P	30 - 160
2212466	Thiamethoxam	114	120	P/P	30 - 160
2212466	Tolfenpyrad	50.5	44.8	P/P	30 - 160
2212466	Triclopyr	64.4	66.0	P/P	30 - 160

Reference Method: SM 4500 F-C-2011
Batch ID: P391320

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2213233	Fluoride	97.3	97.3	P/P	94 - 107

Reference Method: SM 5310 B-2011
Batch ID: P391366

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2213092	Organic Carbon	102	101	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P391261

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2213255	Turbidity	6.98	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P391347

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2213228	Chloride	0.587	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P391349

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2213228	Sulfate	0.489	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391489

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2213318	Ammonia-N	1.45	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P391650

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2213284	Kjeldahl Nitrogen	2.64	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P391256

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2213261	NO2NO3-N	0.491	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P391616

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2213256	Total-P	2.20	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P391224

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2213250	O-Phosphate-P	0.669	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P391086

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2212441	Aldrin	8.09	Spike	P	0 - 30
2212441	Alpha-BHC	6.40	Spike	P	0 - 30
2212441	Alpha-Chlordane	10.0	Spike	P	0 - 30
2212441	Beta-BHC	8.31	Spike	P	0 - 30
2212441	Beta-Cyfluthrin	11.1	Spike	P	0 - 30
2212441	Bifenthrin	2.60	Spike	P	0 - 30
2212441	Chlorothalonil	6.98	Spike	P	0 - 30
2212441	Cis-Nonachlor	8.89	Spike	P	0 - 30
2212441	Cypermethrin	6.21	Spike	P	0 - 30
2212441	Dacthal	8.57	Spike	P	0 - 30
2212441	DDD-p,p'	6.51	Spike	P	0 - 30
2212441	DDE-p,p'	8.31	Spike	P	0 - 30
2212441	DDT-p,p'	5.57	Spike	P	0 - 30
2212441	Delta-BHC	5.01	Spike	P	0 - 30
2212441	Deltamethrin	3.42	Spike	P	0 - 30
2212441	Dichlobenil	18.1	Spike	P	0 - 30
2212441	Dicofol	1.82	Spike	P	0 - 30
2212441	Dieldrin	9.45	Spike	P	0 - 30
2212441	Endosulfan I	10.4	Spike	P	0 - 30
2212441	Endosulfan II	26.1	Spike	P	0 - 30
2212441	Endosulfan Sulfate	8.64	Spike	P	0 - 30
2212441	Endrin	11.0	Spike	P	0 - 30
2212441	Endrin Aldehyde	5.02	Spike	P	0 - 30
2212441	Endrin Ketone	4.33	Spike	P	0 - 30
2212441	Esfenvalerate	16.6	Spike	P	0 - 30
2212441	Ethalfuralin	10.0	Spike	P	0 - 30
2212441	Fenpropathrin	14.8	Spike	P	0 - 30
2212441	Gamma-BHC	7.08	Spike	P	0 - 30
2212441	Gamma-Chlordane	10.1	Spike	P	0 - 30
2212441	Heptachlor	14.4	Spike	P	0 - 30
2212441	Heptachlor Epoxide	8.68	Spike	P	0 - 30
2212441	Hexachlorobenzene	7.19	Spike	P	0 - 30
2212441	Lambda-Cyhalothrin	4.50	Spike	P	0 - 30
2212441	Methoxychlor	4.84	Spike	P	0 - 30
2212441	MGK-264	7.15	Spike	P	0 - 30
2212441	Mirex	7.74	Spike	P	0 - 30
2212441	Permethrin	4.26	Spike	P	0 - 30
2212441	Phenothrin	1.07	Spike	P	0 - 30
2212441	Piperonyl Butoxide	3.12	Spike	P	0 - 30
2212441	Prallethrin	5.28	Spike	P	0 - 30
2212441	Tau-Fluvalinate	12.6	Spike	P	0 - 30
2212441	Tetramethrin	13.2	Spike	P	0 - 30
2212441	Trans-Nonachlor	13.6	Spike	P	0 - 30
2212441	Triclosan Methyl	5.71	Spike	P	0 - 30
2212441	Trifluralin	8.84	Spike	P	0 - 30
LFB	Aldrin	5.76	LCS	P	0 - 30
LFB	Alpha-BHC	6.07	LCS	P	0 - 30
LFB	Alpha-Chlordane	8.80	LCS	P	0 - 30
LFB	Beta-BHC	4.01	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	0.135	LCS	P	0 - 30
LFB	Bifenthrin	7.08	LCS	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P391086

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Chlorothalonil	6.35	LCS	P	0 - 30
LFB	Cis-Nonachlor	9.74	LCS	P	0 - 30
LFB	Cypermethrin	5.44	LCS	P	0 - 30
LFB	Dacthal	7.19	LCS	P	0 - 30
LFB	DDD-p,p'	9.51	LCS	P	0 - 30
LFB	DDE-p,p'	9.52	LCS	P	0 - 30
LFB	DDT-p,p'	4.84	LCS	P	0 - 30
LFB	Delta-BHC	1.79	LCS	P	0 - 30
LFB	Deltamethrin	3.98	LCS	P	0 - 30
LFB	Dichlobenil	0.826	LCS	P	0 - 30
LFB	Dicofol	19.0	LCS	P	0 - 30
LFB	Dieldrin	9.48	LCS	P	0 - 30
LFB	Endosulfan I	5.90	LCS	P	0 - 30
LFB	Endosulfan II	8.30	LCS	P	0 - 30
LFB	Endosulfan Sulfate	3.38	LCS	P	0 - 30
LFB	Endrin	11.1	LCS	P	0 - 30
LFB	Endrin Aldehyde	25.1	LCS	P	0 - 30
LFB	Endrin Ketone	3.17	LCS	P	0 - 30
LFB	Esfenvalerate	3.89	LCS	P	0 - 30
LFB	Ethalfuralin	4.50	LCS	P	0 - 30
LFB	Fenpropathrin	10.6	LCS	P	0 - 30
LFB	Gamma-BHC	5.99	LCS	P	0 - 30
LFB	Gamma-Chlordane	8.50	LCS	P	0 - 30
LFB	Heptachlor	8.38	LCS	P	0 - 30
LFB	Heptachlor Epoxide	7.04	LCS	P	0 - 30
LFB	Hexachlorobenzene	8.74	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	3.08	LCS	P	0 - 30
LFB	Methoxychlor	5.06	LCS	P	0 - 30
LFB	MGK-264	10.1	LCS	P	0 - 30
LFB	Mirex	4.86	LCS	P	0 - 30
LFB	Permethrin	6.89	LCS	P	0 - 30
LFB	Phenothrin	6.35	LCS	P	0 - 30
LFB	Piperonyl Butoxide	6.33	LCS	P	0 - 30
LFB	Prallethrin	18.0	LCS	P	0 - 30
LFB	Tau-Fluvalinate	1.59	LCS	P	0 - 30
LFB	Tetramethrin	19.9	LCS	P	0 - 30
LFB	Trans-Nonachlor	9.29	LCS	P	0 - 30
LFB	Triclosan Methyl	9.12	LCS	P	0 - 30
LFB	Trifluralin	4.05	LCS	P	0 - 30

Reference Method: EPA 8270E

Batch ID: P391270

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2213074	Acetochlor	15.7	Spike	P	0 - 30
2213074	Alachlor	19.6	Spike	P	0 - 30
2213074	Ametryn	20.7	Spike	P	0 - 30
2213074	Atrazine	17.6	Spike	P	0 - 30
2213074	Atrazine Desethyl	25.6	Spike	P	0 - 30
2213074	Azinphos Methyl	22.6	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P391270

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2213074	Azoxystrobin	1.95	Spike	P	0 - 30
2213074	Bromacil	6.84	Spike	P	0 - 30
2213074	Butylate	14.2	Spike	P	0 - 30
2213074	Carbophenothion	23.7	Spike	P	0 - 30
2213074	Carfentrazone Ethyl	21.1	Spike	P	0 - 30
2213074	Chlorpyrifos Ethyl	25.3	Spike	P	0 - 30
2213074	Chlorpyrifos Methyl	21.7	Spike	P	0 - 30
2213074	Cyanazine	26.6	Spike	P	0 - 30
2213074	Demeton	26.3	Spike	P	0 - 30
2213074	Diazinon	22.6	Spike	P	0 - 30
2213074	Difenoconazole	3.69	Spike	P	0 - 30
2213074	Dimethenamid	13.7	Spike	P	0 - 30
2213074	Disulfoton	29.9	Spike	P	0 - 30
2213074	Dithiopyr	18.2	Spike	P	0 - 30
2213074	EPTC	5.58	Spike	P	0 - 30
2213074	Ethion	5.29	Spike	P	0 - 30
2213074	Ethoprop	33.4	Spike	F	0 - 30
2213074	Fenamiphos	5.35	Spike	P	0 - 30
2213074	Fenbuconazole	19.3	Spike	P	0 - 30
2213074	Fipronil	21.0	Spike	P	0 - 30
2213074	Fipronil Desulfinyl	21.3	Spike	P	0 - 30
2213074	Fipronil Sulfide	3.16	Spike	P	0 - 30
2213074	Fipronil Sulfone	28.0	Spike	P	0 - 30
2213074	Fluazifop-P-butyl	22.7	Spike	P	0 - 30
2213074	Fludioxonil	23.0	Spike	P	0 - 30
2213074	Flumioxazin	8.17	Spike	P	0 - 30
2213074	Flutolanil	14.0	Spike	P	0 - 30
2213074	Fluxapyroxad	10.9	Spike	P	0 - 30
2213074	Fonofos	22.8	Spike	P	0 - 30
2213074	Hexazinone	26.5	Spike	P	0 - 30
2213074	Imazalil	9.76	Spike	P	0 - 30
2213074	Iprodione	16.2	Spike	P	0 - 30
2213074	Malathion	21.2	Spike	P	0 - 30
2213074	Metalaxyl	27.7	Spike	P	0 - 30
2213074	Metolachlor	18.9	Spike	P	0 - 30
2213074	Metribuzin	25.9	Spike	P	0 - 30
2213074	Mevinphos	29.2	Spike	P	0 - 30
2213074	Molinate	17.2	Spike	P	0 - 30
2213074	Myclobutanil	10.1	Spike	P	0 - 30
2213074	Naled	9.47	Spike	P	0 - 30
2213074	Norflurazon	16.4	Spike	P	0 - 30
2213074	Oxadiazon	20.3	Spike	P	0 - 30
2213074	Oxyfluorfen	20.8	Spike	P	0 - 30
2213074	Parathion Ethyl	32.0	Spike	F	0 - 30
2213074	Parathion Methyl	23.7	Spike	P	0 - 30
2213074	Pendimethalin	28.6	Spike	P	0 - 30
2213074	Phorate	26.5	Spike	P	0 - 30
2213074	Prodiamine	16.7	Spike	P	0 - 30
2213074	Prometon	22.9	Spike	P	0 - 30
2213074	Prometryn	26.5	Spike	P	0 - 30
2213074	Pronamide	29.9	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P391270

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2213074	Propiconazole	16.2	Spike	P	0 - 30
2213074	Pyriproxyfen	13.2	Spike	P	0 - 30
2213074	Simazine	24.6	Spike	P	0 - 30
2213074	Sulfentrazone	24.2	Spike	P	0 - 30
2213074	Tebuconazole	15.2	Spike	P	0 - 30
2213074	Terbufos	31.8	Spike	F	0 - 30
2213074	Terbutylazine	25.7	Spike	P	0 - 30
LFB	Acetochlor	23.2	LCS	P	0 - 30
LFB	Alachlor	25.6	LCS	P	0 - 30
LFB	Ametryn	19.9	LCS	P	0 - 30
LFB	Atrazine	29.4	LCS	P	0 - 30
LFB	Atrazine Desethyl	41.2	LCS	F	0 - 30
LFB	Azinphos Methyl	27.7	LCS	P	0 - 30
LFB	Azoxystrobin	57.3	LCS	F	0 - 30
LFB	Bromacil	38.8	LCS	F	0 - 30
LFB	Butylate	13.0	LCS	P	0 - 30
LFB	Carbophenothion	21.6	LCS	P	0 - 30
LFB	Carfentrazone Ethyl	27.1	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	20.4	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	15.4	LCS	P	0 - 30
LFB	Cyanazine	37.2	LCS	F	0 - 30
LFB	Demeton	18.9	LCS	P	0 - 30
LFB	Diazinon	27.5	LCS	P	0 - 30
LFB	Difenoconazole	44.6	LCS	F	0 - 30
LFB	Dimethenamid	22.0	LCS	P	0 - 30
LFB	Disulfoton	18.0	LCS	P	0 - 30
LFB	Dithiopyr	21.6	LCS	P	0 - 30
LFB	EPTC	12.1	LCS	P	0 - 30
LFB	Ethion	21.4	LCS	P	0 - 30
LFB	Ethoprop	24.1	LCS	P	0 - 30
LFB	Fenamiphos	27.7	LCS	P	0 - 30
LFB	Fenbuconazole	63.1	LCS	F	0 - 30
LFB	Fipronil	31.6	LCS	F	0 - 30
LFB	Fipronil Desulfinyl	23.2	LCS	P	0 - 30
LFB	Fipronil Sulfide	6.06	LCS	P	0 - 30
LFB	Fipronil Sulfone	13.4	LCS	P	0 - 30
LFB	Fluazifop-P-butyl	25.2	LCS	P	0 - 30
LFB	Fludioxonil	32.6	LCS	F	0 - 30
LFB	Flumioxazin	26.7	LCS	P	0 - 30
LFB	Flutolanil	29.1	LCS	P	0 - 30
LFB	Fluxapyroxad	36.2	LCS	F	0 - 30
LFB	Fonofos	9.40	LCS	P	0 - 30
LFB	Hexazinone	63.8	LCS	F	0 - 30
LFB	Imazalil	73.8	LCS	F	0 - 30
LFB	Iprodione	21.6	LCS	P	0 - 30
LFB	Malathion	18.7	LCS	P	0 - 30
LFB	Metalaxyl	43.1	LCS	F	0 - 30
LFB	Metolachlor	27.4	LCS	P	0 - 30
LFB	Metribuzin	24.9	LCS	P	0 - 30
LFB	Mevinphos	26.3	LCS	P	0 - 30
LFB	Molinate	13.9	LCS	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P391270

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Myclobutanil	57.9	LCS	F	0 - 30
LFB	Naled	15.0	LCS	P	0 - 30
LFB	Norflurazon	40.0	LCS	F	0 - 30
LFB	Oxadiazon	26.4	LCS	P	0 - 30
LFB	Oxyfluorfen	26.4	LCS	P	0 - 30
LFB	Parathion Ethyl	28.5	LCS	P	0 - 30
LFB	Parathion Methyl	26.6	LCS	P	0 - 30
LFB	Pendimethalin	19.7	LCS	P	0 - 30
LFB	Phorate	8.28	LCS	P	0 - 30
LFB	Prodiamine	18.9	LCS	P	0 - 30
LFB	Prometon	27.8	LCS	P	0 - 30
LFB	Prometryn	26.8	LCS	P	0 - 30
LFB	Pronamide	22.7	LCS	P	0 - 30
LFB	Propiconazole	33.1	LCS	F	0 - 30
LFB	Pyriproxyfen	24.2	LCS	P	0 - 30
LFB	Simazine	27.6	LCS	P	0 - 30
LFB	Sulfentrazone	58.7	LCS	F	0 - 30
LFB	Tebuconazole	46.8	LCS	F	0 - 30
LFB	Terbufos	21.1	LCS	P	0 - 30
LFB	Terbutylazine	23.5	LCS	P	0 - 30

Reference Method: EPA 8276

Batch ID: P391086

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2212447	Chlordane	2.62	Spike	P	0 - 30
2212447	Toxaphene	1.59	Spike	P	0 - 30
LFB	Chlordane	2.77	LCS	P	0 - 30
LFB	Toxaphene	4.17	LCS	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P391140

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2212044	3-Hydroxycarbofuran	10.8	Spike	P	0 - 30
2212044	Aldicarb	3.93	Spike	P	0 - 30
2212044	Aldicarb Sulfone	0.0750	Spike	P	0 - 30
2212044	Aldicarb Sulfoxide	2.55	Spike	P	0 - 30
2212044	Carbaryl	10.8	Spike	P	0 - 30
2212044	Carbofuran	0.132	Spike	P	0 - 30
2212044	Methiocarb	13.4	Spike	P	0 - 30
2212044	Methomyl	6.33	Spike	P	0 - 30
2212044	Oxamyl	10.6	Spike	P	0 - 30
2212044	Propoxur	1.33	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P391314

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2213076	Acesulfame K	0.833	Spike	P	0 - 30
2213076	AMPA	10.4	Spike	P	0 - 30
2213076	Endothall	9.97	Spike	P	0 - 30
2213076	Glufosinate	14.9	Spike	P	0 - 30
2213076	Glyphosate	21.3	Spike	P	0 - 30
2213076	Sucralose	3.89	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P391438

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2212466	2,4-D	16.0	Spike	P	0 - 30
2212466	Acetaminophen	50.9	Spike	F	0 - 30
2212466	Acetamiprid	3.22	Spike	P	0 - 30
2212466	Afidopyropen	18.4	Spike	P	0 - 30
2212466	Bentazon	4.05	Spike	P	0 - 30
2212466	Benzovindiflupyr	0.184	Spike	P	0 - 30
2212466	Carbamazepine	1.52	Spike	P	0 - 30
2212466	Clothianidin	0.915	Spike	P	0 - 30
2212466	Dinotefuran	1.09	Spike	P	0 - 30
2212466	Diuron	3.93	Spike	P	0 - 30
2212466	Fenuron	0.995	Spike	P	0 - 30
2212466	Fluridone	17.9	Spike	P	0 - 30
2212466	Hydrocodone	1.60	Spike	P	0 - 30
2212466	Ibuprofen	26.7	Spike	P	0 - 30
2212466	Imazapyr	1.65	Spike	P	0 - 30
2212466	Imidacloprid	4.29	Spike	P	0 - 30
2212466	Linuron	3.93	Spike	P	0 - 30
2212466	Mandestrobin	3.66	Spike	P	0 - 30
2212466	MCP	0.246	Spike	P	0 - 30
2212466	Naproxen	19.3	Spike	P	0 - 30
2212466	Primidone	3.21	Spike	P	0 - 30
2212466	Pyraclostrobin	1.41	Spike	P	0 - 30
2212466	Thiamethoxam	5.50	Spike	P	0 - 30
2212466	Tolfenpyrad	11.8	Spike	P	0 - 30
2212466	Triclopyr	2.49	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P391194

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2213283	Color (true)	0.599	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P391317

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2213233	Total Alkalinity	1.87	Sample	P	0 - 8.1

Quality Assurance Report Precision

Reference Method: SM 2540 C-2011
Batch ID: P391664

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2213172	TDS	2.90	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P391320

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2213233	Fluoride	0.0	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011
Batch ID: P391366

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2213092	Organic Carbon	0.609	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2213267
Field Sample ID: G4CE0194

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	49.3	P	30 - 160
EPA 8321B	Carbaryl-d7	49.3	P	30 - 160

Lab Sample ID: 2213268
Field Sample ID: G4CE0194

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	54.7	P	30 - 160
EPA 8321B	Acetaminophen-d4	53.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	41.6	P	30 - 160
EPA 8321B	Diuron-d6	44.3	P	30 - 160
EPA 8321B	Endothall-d6	98.9	P	40 - 160
EPA 8321B	Endothall-d6	98.9	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	138	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	138	P	40 - 160
EPA 8321B	Ibuprofen-d3	37.1	P	30 - 160
EPA 8321B	Primidone-d5	64.3	P	30 - 160
EPA 8321B	Sucralose-d6	109	P	30 - 160
EPA 8321B	Sucralose-d6	109	P	30 - 160

Lab Sample ID: 2213275
Field Sample ID: G4CE0194

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	81.0	P	44 - 112
EPA 8270E	Tetrachloro-m-xylene	44.9	P	34 - 106
EPA 8276	Decachlorobiphenyl	73.2	P	26 - 97.0
EPA 8276	PCNB	84.5	P	38 - 141

Lab Sample ID: 2213276
Field Sample ID: G4CE0194

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	131	P	72 - 135
EPA 8270E	Terbufos-d10	114	P	57 - 134

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B-2011

Run ID: A102597

Included Lab Sample IDs: 2213255

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A102610

Included Lab Sample IDs: 2213257

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A102615

Included Lab Sample IDs: 2213256

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A102617

Included Lab Sample IDs: 2213255

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

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A102618

Included Lab Sample IDs: 2213255

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	104	104	P/P	95 - 105

Reference Method: SM 2320 B-2011

Run ID: A102634

Included Lab Sample IDs: 2213255

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.1	103	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A102634

Included Lab Sample IDs: 2213255

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

Reference Method: EPA 8321B

Run ID: A102642

Included Lab Sample IDs: 2213267

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	106	93.9	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A102642
Included Lab Sample IDs: 2213267

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldicarb	106	99.3	P/P	60 - 150
Aldicarb Sulfone	109	103	P/P	50 - 150
Aldicarb Sulfoxide	110	117	P/P	50 - 150
Carbaryl	103	110	P/P	60 - 150
Carbofuran	113	99.9	P/P	50 - 150
Methiocarb	114	103	P/P	50 - 150
Methomyl	102	92.3	P/P	50 - 150
Oxamyl	106	100	P/P	50 - 150
Propoxur	121	102	P/P	50 - 150

Reference Method: SM 5310 B-2011
Run ID: A102649
Included Lab Sample IDs: 2213256

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

Reference Method: EPA 8321B
Run ID: A102674
Included Lab Sample IDs: 2213268

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	105	104	P/P	60 - 160

Reference Method: EPA 8276
Run ID: A102680
Included Lab Sample IDs: 2213275

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	97.8		P	80 - 120
Toxaphene	144*		F	80 - 120

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A102686
Included Lab Sample IDs: 2213256

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.9	99.2	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A102690
Included Lab Sample IDs: 2213275

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	99.6		P	80 - 120
Alpha-BHC	103		P	80 - 120
Alpha-Chlordane	101		P	80 - 120
Beta-BHC	97.4		P	80 - 120
Beta-Cyfluthrin	88.8		P	80 - 120
Bifenthrin	98.3		P	80 - 120
Chlorothalonil	117		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A102690
Included Lab Sample IDs: 2213275

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cis-Nonachlor	98.6		P	80 - 120
Cypermethrin	102		P	80 - 120
Dacthal	100		P	80 - 120
DDD-p,p'	98.9		P	80 - 120
DDE-p,p'	104		P	80 - 120
DDT-p,p'	98.7		P	80 - 120
Delta-BHC	100		P	80 - 120
Deltamethrin	101		P	80 - 120
Dichlobenil	98.6		P	80 - 120
Dicofol	99.0		P	80 - 120
Dieldrin	100		P	80 - 120
Endosulfan I	93.0		P	80 - 120
Endosulfan II	92.4		P	80 - 120
Endosulfan Sulfate	105		P	80 - 120
Endrin	101		P	80 - 120
Endrin Aldehyde	101		P	80 - 120
Endrin Ketone	101		P	80 - 120
Esfenvalerate	98.0		P	80 - 120
Ethalfuralin	97.9		P	80 - 120
Fenpropathrin	90.3		P	80 - 120
Gamma-BHC	107		P	80 - 120
Gamma-Chlordane	100		P	80 - 120
Heptachlor	98.3		P	80 - 120
Heptachlor Epoxide	99.9		P	80 - 120
Hexachlorobenzene	101		P	80 - 120
Lambda-Cyhalothrin	96.5		P	80 - 120
Methoxychlor	98.2		P	80 - 120
MGK-264	98.5		P	80 - 120
Mirex	100		P	80 - 120
Permethrin	94.9		P	80 - 120
Phenothrin	93.1		P	80 - 120
Piperonyl Butoxide	92.2		P	80 - 120
Prallethrin	90.4		P	80 - 120
Tau-Fluvalinate	99.7		P	80 - 120
Tetramethrin	95.4		P	80 - 120
Trans-Nonachlor	100		P	80 - 120
Triclosan Methyl	101		P	80 - 120
Trifluralin	96.6		P	80 - 120

Reference Method: EPA 8270E
Run ID: A102693
Included Lab Sample IDs: 2213276

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	97.0		P	80 - 120
Alachlor	98.7		P	80 - 120
Ametryn	99.2		P	80 - 120
Atrazine	95.1		P	80 - 120
Atrazine Desethyl	104		P	80 - 120
Azinphos Methyl	110		P	80 - 120
Azoxystrobin	103		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A102693
Included Lab Sample IDs: 2213276

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Butylate	103		P	80 - 120
Carbophenothion	92.4		P	80 - 120
Carfentrazone Ethyl	97.7		P	80 - 120
Chlorpyrifos Ethyl	97.9		P	80 - 120
Chlorpyrifos Methyl	97.3		P	80 - 120
Cyanazine	91.8		P	80 - 120
Demeton	93.4		P	80 - 120
Diazinon	97.4		P	80 - 120
Difenoconazole	97.4		P	80 - 120
Dimethenamid	98.7		P	80 - 120
Disulfoton	95.6		P	80 - 120
Dithiopyr	98.7		P	80 - 120
EPTC	99.4		P	80 - 120
Ethion	93.4		P	80 - 120
Ethoprop	97.1		P	80 - 120
Fenamiphos	99.6		P	80 - 120
Fenbuconazole	92.3		P	80 - 120
Fipronil	97.1		P	80 - 120
Fipronil Desulfinyl	95.4		P	80 - 120
Fipronil Sulfide	97.4		P	80 - 120
Fipronil Sulfone	97.9		P	80 - 120
Fluazifop-P-butyl	95.0		P	80 - 120
Fludioxonil	96.0		P	80 - 120
Flumioxazin	94.1		P	80 - 120
Flutolanil	103		P	80 - 120
Fluxapyroxad	92.5		P	80 - 120
Fonofos	96.6		P	80 - 120
Hexazinone	99.5		P	80 - 120
Imazalil	95.6		P	80 - 120
Iprodione	94.1		P	80 - 120
Malathion	94.0		P	80 - 120
Metalaxyl	99.8		P	80 - 120
Metolachlor	93.9		P	80 - 120
Metribuzin	91.5		P	80 - 120
Mevinphos	112		P	80 - 120
Molinate	100		P	80 - 120
Myclobutanil	94.6		P	80 - 120
Naled	104		P	80 - 120
Norflurazon	91.6		P	80 - 120
Oxadiazon	97.7		P	80 - 120
Oxyfluorfen	96.9		P	80 - 120
Parathion Ethyl	98.9		P	80 - 120
Parathion Methyl	105		P	80 - 120
Pendimethalin	94.1		P	80 - 120
Phorate	96.2		P	80 - 120
Prodiamine	96.2		P	80 - 120
Prometon	99.0		P	80 - 120
Prometryn	103		P	80 - 120
Pronamide	95.7		P	80 - 120
Propiconazole	96.1		P	80 - 120
Pyriproxyfen	94.0		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A102693

Included Lab Sample IDs: 2213276

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Simazine	96.5		P	80 - 120
Sulfentrazone	93.9		P	80 - 120
Tebuconazole	97.1		P	80 - 120
Terbufos	95.1		P	80 - 120
Terbutylazine	94.5		P	80 - 120

Reference Method: EPA 8321B

Run ID: A102710

Included Lab Sample IDs: 2213268

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	97.9	103	P/P	60 - 160
AMPA	87.6	95.4	P/P	60 - 160
Endothall	99.2	105	P/P	60 - 160
Glufosinate	89.3	99.2	P/P	60 - 160
Glyphosate	103	89.1	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A102718

Included Lab Sample IDs: 2213268

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	84.2	75.1	P/P	50 - 150
Acetaminophen	108	105	P/P	60 - 160
Acetamiprid	125	111	P/P	50 - 150
Afidopyropen	120	98.9	P/P	50 - 150
Bentazon	120	102	P/P	50 - 160
Benzovindiflupyr	112	101	P/P	50 - 150
Carbamazepine	95.6	91.4	P/P	60 - 150
Clothianidin	102	109	P/P	60 - 150
Dinotefuran	92.3	106	P/P	50 - 150
Diuron	86.1	84.4	P/P	60 - 160
Fenuron	104	106	P/P	60 - 150
Fluridone	114	117	P/P	60 - 160
Hydrocodone	98.3	102	P/P	60 - 150
Ibuprofen	78.4	87.4	P/P	50 - 160
Imazapyr	82.4	82.0	P/P	50 - 150
Imidacloprid	104	98.1	P/P	60 - 150
Linuron	109	95.1	P/P	60 - 150
Mandestrobin	110	106	P/P	50 - 150
MCP	78.1	89.7	P/P	50 - 150
Naproxen	80.8	107	P/P	50 - 160
Primidone	96.1	91.7	P/P	60 - 150
Pyraclostrobin	105	106	P/P	60 - 150
Thiamethoxam	99.3	105	P/P	50 - 150
Tolfenpyrad	104	109	P/P	60 - 150
Triclopyr	94.6	99.8	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A102754
Included Lab Sample IDs: 2213276

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bromacil	92.0		P	80 - 120

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A102758
Included Lab Sample IDs: 2213256

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A102770
Included Lab Sample IDs: 2213256

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	103	97.8	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						6.98	
EPA 300.0 Rev. 2.1	Chloride	101		100	101			0.587
	Sulfate	101		100	101			0.489
EPA 350.1 Rev. 2.0	Ammonia-N	97.8		97.6	96.0			1.45
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101		97.1	102			2.64
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	99.0		96.2	95.6			0.491
EPA 365.1 Rev. 2.0	Total-P	101		106	103			2.20
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	100		104	105			0.669
EPA 8270E	Acetochlor	77.9	98.4	71.0	83.1	23.2		15.7
	Alachlor	85.6	111	87.6	107	25.6		19.6
	Aldrin	62.2	58.7	62.2	57.4	5.76		8.09
	Alpha-BHC	87.9	82.7	90.1	84.5	6.07		6.40
	Alpha-Chlordane	81.3	88.8	82.1	74.3	8.80		10.0
	Ametryn	107	131	111	137	19.9		20.7
	Atrazine	80.7	108	94.0	112	29.4		17.6
	Atrazine Desethyl	90.6	138	81.2	105	41.2		25.6
	Azinphos Methyl	138	183	152	191	27.7		22.6
	Azoxystrobin	125	69.4	72.9	71.5	57.3		1.95
	Beta-BHC	96.3	100	94.6	87.0	4.01		8.31
	Beta-Cyfluthrin	118	118	139	124	0.135		11.1
	Bifenthrin	87.6	94.0	90.3	88.0	7.08		2.60
	Bromacil	110	74.2	80.4	86.1	38.8		6.84
	Butylate	82.4	72.3	66.9	77.1	13.0		14.2
	Carbophenothion	85.2	106	80.0	102	21.6		23.7
	Carfentrazone Ethyl	91.4	120	91.2	113	27.1		21.1
	Chlorothalonil	98.1	92.0	151	162	6.35		6.98
	Chlorpyrifos Ethyl	73.5	90.2	67.1	86.6	20.4		25.3
	Chlorpyrifos Methyl	84.5	98.6	81.2	101	15.4		21.7
	Cis-Nonachlor	92.3	83.8	85.8	78.5	9.74		8.89
	Cyanazine	82.1	120	93.9	123	37.2		26.6
	Cypermethrin	112	106	111	105	5.44		6.21
	Dacthal	97.2	90.5	96.8	88.8	7.19		8.57
	DDD-p,p'	97.0	88.2	91.2	85.5	9.51		6.51
	DDE-p,p'	86.9	79.0	81.3	74.8	9.52		8.31
	DDT-p,p'	86.3	82.2	81.5	77.1	4.84		5.57
	Delta-BHC	144	147	201	191	1.79		5.01
	Deltamethrin	121	116	117	121	3.98		3.42
	Demeton	81.1	98.0	79.5	104	18.9		26.3
	Diazinon	84.8	112	84.8	106	27.5		22.6
	Dichlobenil	73.3	73.9	75.5	63.0	0.826		18.1
	Dicofol	99.7	82.4	74.5	73.2	19.0		1.82
	Dieldrin	91.8	83.5	87.2	79.3	9.48		9.45
	Difenoconazole	87.5	138	99.5	95.9	44.6		3.69
	Dimethenamid	83.0	104	77.7	89.1	22.0		13.7
	Disulfoton	82.1	98.3	85.7	116	18.0		29.9
	Dithiopyr	78.6	97.7	76.0	91.2	21.6		18.2
	Endosulfan I	97.5	91.9	104	93.6	5.90		10.4
	Endosulfan II	102	94.0	117	90.3	8.30		26.1
	Endosulfan Sulfate	112	108	121	111	3.38		8.64
	Endrin	86.5	96.6	90.8	81.3	11.1		11.0
	Endrin Aldehyde	84.8	109	84.7	80.6	25.1		5.02
	Endrin Ketone	91.7	94.7	92.0	88.1	3.17		4.33
	EPTC	65.2	73.6	56.9	60.1	12.1		5.58
	Esfenvalerate	102	106	113	95.8	3.89		16.6

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Ethalfuralin	77.9	81.4	134	121	4.50	10.0
	Ethion	65.7	81.5	58.1	55.1	21.4	5.29
	Ethoprop	83.8	107	80.2	112	24.1	33.4
	Fenamiphos	82.6	109	73.3	69.4	27.7	5.35
	Fenbuconazole	71.3	137	85.8	104	63.1	19.3
	Fenpropathrin	128	143	205	176	10.6	14.8
	Fipronil	86.7	119	88.8	110	31.6	21.0
	Fipronil Desulfinyl	84.8	107	80.4	99.6	23.2	21.3
	Fipronil Sulfide	99.8	106	91.4	94.3	6.06	3.16
	Fipronil Sulfone	80.6	92.2	76.1	101	13.4	28.0
	Fluazifop-P-butyl	92.0	119	87.9	110	25.2	22.7
	Fludioxonil	83.4	116	77.9	98.2	32.6	23.0
	Flumioxazin	114	150	110	119	26.7	8.17
	Flutolanil	92.6	124	89.7	103	29.1	14.0
	Fluxapyroxad	70.8	102	72.3	80.7	36.2	10.9
	Fonofos	83.7	91.9	85.0	107	9.40	22.8
	Gamma-BHC	102	108	111	104	5.99	7.08
	Gamma-Chlordane	78.5	85.4	79.0	71.4	8.50	10.1
	Heptachlor	69.0	75.0	70.2	60.7	8.38	14.4
	Heptachlor Epoxide	83.7	89.8	84.1	77.1	7.04	8.68
	Hexachlorobenzene	64.5	70.4	59.1	55.0	8.74	7.19
	Hexazinone	60.6	117	75.0	98.0	63.8	26.5
	Imazalil	62.3	135	65.1	71.8	73.8	9.76
	Iprodione	75.6	94.0	72.2	84.9	21.6	16.2
	Lambda-Cyhalothrin	113	117	151	145	3.08	4.50
	Malathion	76.5	92.4	70.2	86.9	18.7	21.2
	Metalaxyl	74.1	115	80.6	107	43.1	27.7
	Methoxychlor	89.9	94.5	92.1	87.8	5.06	4.84
	Metolachlor	71.3	94.0	70.5	86.6	27.4	18.9
	Metribuzin	86.8	112	85.3	111	24.9	25.9
	Mevinphos	108	140	103	138	26.3	29.2
	MGK-264	79.7	88.2	89.9	83.7	10.1	7.15
	Mirex	71.4	75.0	71.8	66.4	4.86	7.74
	Molinate	77.1	88.6	72.6	86.3	13.9	17.2
	Myclobutanil	69.6	126	89.8	99.3	57.9	10.1
	Naled	48.1	55.9	41.4	45.5	15.0	9.47
	Norflurazon	74.4	112	82.3	97.0	40.0	16.4
	Oxadiazon	81.1	106	80.2	98.3	26.4	20.3
	Oxyfluorfen	103	134	111	137	26.4	20.8
	Parathion Ethyl	79.4	106	80.0	110	28.5	32.0
	Parathion Methyl	93.6	122	102	129	26.6	23.7
	Pendimethalin	68.3	83.3	83.6	112	19.7	28.6
	Permethrin	85.4	91.5	90.1	86.3	6.89	4.26
	Phenothrin	72.4	77.2	77.2	76.4	6.35	1.07
	Phorate	70.8	76.9	69.2	90.3	8.28	26.5
	Piperonyl Butoxide	94.8	101	102	98.7	6.33	3.12
	Prallethrin	71.1	85.1	76.4	72.4	18.0	5.28
	Prodiamine	35.8	43.3	47.7	56.4	18.9	16.7
	Prometon	83.1	110	83.2	105	27.8	22.9
	Prometryn	94.8	124	93.6	122	26.8	26.5
	Pronamide	87.8	110	88.8	120	22.7	29.9
	Propiconazole	80.3	112	86.8	102	33.1	16.2
	Pyriproxyfen	88.2	112	82.7	94.3	24.2	13.2
	Simazine	93.9	124	92.6	119	27.6	24.6

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270E	Sulfentrazone	120	65.6	79.4	101	58.7		24.2
	Tau-Fluvalinate	132	135	153	135	1.59		12.6
	Tebuconazole	78.5	48.7	51.7	44.4	46.8		15.2
	Terbufos	92.1	74.5	76.9	106	21.1		31.8
	Terbutylazine	100	79.2	77.2	99.9	23.5		25.7
	Tetramethrin	109	133	153	134	19.9		13.2
	Trans-Nonachlor	79.9	87.7	79.6	69.4	9.29		13.6
	Triclosan Methyl	94.4	103	97.0	91.6	9.12		5.71
EPA 8276	Trifluralin	78.2	81.4	127	117	4.05		8.84
	Chlordane	80.8	83.0	87.8	90.1	2.77		2.62
	Toxaphene	79.4	76.1	93.4	92.0	4.17		1.59
EPA 8321B	2,4-D	68.4		60.9	71.6			16.0
	3-Hydroxycarbofuran	74.7		52.8	47.4			10.8
	Acesulfame K	106		110	109			0.833
	Acetaminophen	68.2		63.8	107			50.9
	Acetamiprid	96.5		93.8	90.8			3.22
	Afidopyropen	70.6		58.9	70.8			18.4
	Aldicarb	55.8		39.7	41.3			3.93
	Aldicarb Sulfone	80.3		45.7	45.7			0.0750
	Aldicarb Sulfoxide	78.8		34.7	33.8			2.55
	AMPA	93.5		130	144			10.4
	Bentazon	52.0						4.05
	Benzovindiflupyr	83.9		74.6	74.7			0.184
	Carbamazepine	66.9		58.9	59.8			1.52
	Carbaryl	79.7		44.5	49.6			10.8
	Carbofuran	74.0		46.9	46.8			0.132
	Clothianidin	87.6		73.6	73.0			0.915
	Dinotefuran	82.9		98.1	97.0			1.09
	Diuron	54.9		42.3	40.6			3.93
	Endothall	90.9		106	117			9.97
	Fenuron	97.0		76.9	77.6			0.995
	Fluridone	73.6		69.6	58.1			17.9
	Glufosinate	96.9		95.1	110			14.9
	Glyphosate	92.3		72.1	89.2			21.3
	Hydrocodone	92.6		101	102			1.60
	Ibuprofen	50.3		37.2	48.6			26.7
	Imazapyr	68.4		15.0	13.7			1.65
	Imidacloprid	96.9		128	123			4.29
	Linuron	62.6		56.1	58.4			3.93
	Mandestrobin	81.0		70.8	68.2			3.66
	MCPP	80.0		65.5	65.3			0.246
	Methiocarb	74.3		50.1	57.4			13.4
	Methomyl	85.7		56.8	53.3			6.33
	Naproxen	48.0		35.2	42.7			19.3
	Oxamyl	81.7		60.6	54.5			10.6
	Primidone	73.8		69.4	71.7			3.21
	Propoxur	74.4		46.4	45.8			1.33
	Pyraclostrobin	72.2		73.9	75.0			1.41
	Sucralose	105		104	109			3.89
	Thiamethoxam	91.6		114	120			5.50
	Tolfenpyrad	49.7		50.5	44.8			11.8
	Triclopyr	69.6		64.4	66.0			2.49
SM 2120 B-2011	Color (true)	100					0.599	
SM 2320 B-2011	Total Alkalinity	102					1.87	

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
SM 2540 C-2011	TDS					2.90	
SM 4500 F-C-2011	Fluoride	97.8	97.3	97.3			0.0
SM 5310 B-2011	Organic Carbon	99.7	102	101			0.609

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2213255
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2213255
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2213255
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2213256
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2213256
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2213256
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2213256
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2213257
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS-SIM	2213275
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2213276
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2213275
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2213267
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2213268
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2213268
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2213255
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2213255
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2213255
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2213255
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2213255
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2213256

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	12/15/2020			12/15/2020 17:13	Yen Ta	2213255
EPA 300.0 Rev. 2.1	12/15/2020			12/16/2020 23:43	Lipi Saha	2213255
EPA 350.1 Rev. 2.0	12/15/2020			12/20/2020 18:07	Ping Hua	2213256
EPA 351.2 Rev. 2.0	12/15/2020	12/22/2020 14:35	David Boose	12/23/2020 17:06	Julia Storbeck	2213256
EPA 353.2 Rev. 2.0	12/15/2020			12/16/2020 09:45	Beverly Y. Sanders	2213256
EPA 365.1 Rev. 2.0	12/15/2020	12/22/2020 13:26	Yen Ta	12/23/2020 12:46	Benjamin T. Nordmann	2213256
EPA 365.1 Rev. 2.0 dissolved	12/15/2020			12/15/2020 16:40	Blanca Fach	2213257
EPA 8270E	12/15/2020	12/16/2020 02:00	Rasheda Ghaffari	12/17/2020 21:11	Vandana T. Nagar	2213276
	12/15/2020	12/16/2020 02:00	Rasheda Ghaffari	12/18/2020 13:52	Vandana T. Nagar	2213276
	12/15/2020	12/16/2020 08:00	Fe-Val Siddell	12/18/2020 22:43	Arthur Maknenko	2213275
EPA 8276	12/15/2020	12/16/2020 08:00	Fe-Val Siddell	12/18/2020 13:45	Michael Poppell	2213275
EPA 8321B	12/15/2020	12/15/2020 13:00	Hoor Shaik	12/17/2020 11:03	Juyoung Kim	2213267
	12/15/2020	12/17/2020 11:00	Hoor Shaik	12/21/2020 16:30	Juyoung Kim	2213268
	12/15/2020	12/17/2020 11:00	Rebecca Ware	12/17/2020 15:35	Rebecca Ware	2213268
	12/15/2020	12/17/2020 11:00	Rebecca Ware	12/18/2020 23:31	Rebecca Ware	2213268
SM 2120 B-2011	12/15/2020			12/15/2020 17:37	Julia Storbeck	2213255
SM 2320 B-2011	12/15/2020			12/16/2020 19:24	Dale L. Simmons	2213255
SM 2540 C-2011	12/15/2020			12/18/2020 15:11	Yijie Li	2213255
SM 2540 D-2011	12/15/2020			12/18/2020 15:11	Yijie Li	2213255
SM 4500 F-C-2011	12/15/2020			12/16/2020 19:24	Dale L. Simmons	2213255
SM 5310 B-2011	12/15/2020			12/16/2020 20:59	Touraj Touran	2213256