Chemical Analysis Report

SE-DIST-2021-02-12-02

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

Event Description: **SMP - Fort Pierce/Drum 01/20**
Request ID: **RQ-2021-01-18-34**
Customer: **SE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
2199 South Rock Road
Fort Pierce, FL 34945
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Certified by: Colin Wright, Program Administrator

Date Certified: 09-MAR-2021 12:20

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: Fort Pierce Farm Canal @ Taylor Dairy **Collection Date/Time: 02/11/2021 10:45**

Field ID: G2SE0002 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2225221	EPA 180.1 Rev. 2.0	Turbidity	2.3	A	NTU	P393728	
	EPA 300.0 Rev. 2.1	Chloride	340		mg Cl/L	P394003	
		Sulfate	84		mg SO4/L	P394006	
	SM 2120 B-2011	Color (true)	48		PCU	P393734	
	SM 2320 B-2011	Total Alkalinity	169		mg CaCO3/L	P393801	
	SM 2540 C-2011	TDS	832		mg/L	P394109	
	SM 2540 D-2011	TSS	2	I	mg/L	P394093	
	SM 4500 F-C-2011	Fluoride	0.41		mg F/L	P393804	
2225222	EPA 350.1 Rev. 2.0	Ammonia-N	0.005		mg N/L	P394187	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.66		mg N/L	P393952	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P393758	
	EPA 365.1 Rev. 2.0	Total-P	0.065		mg P/L	P393873	
	SM 5310 B-2011	Organic Carbon	11		mg C/L	P394373	
2225223	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.027		mg P/L	P393731	
2225236	EPA 8321B	Aldicarb	0.020	U	ug/L	P393832	
		Aldicarb Sulfone	0.0020	U	ug/L	P393832	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P393832	
		Carbaryl	0.0020	U	ug/L	P393832	
		Carbofuran	0.0020	U	ug/L	P393832	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P393832	RPD
		Methiocarb	0.0020	U	ug/L	P393832	
		Methomyl	0.0020	U	ug/L	P393832	RPD
		Oxamyl	0.0020	U	ug/L	P393832	
		Propoxur	0.0020	U	ug/L	P393832	
2225237		2,4-D	0.019		ug/L	P393796	
		Acesulfame K	0.18	I	ug/L	P393743	MS
		AMPA	1.2		ug/L	P393743	MS
		Sucralose	0.34		ug/L	P393743	
		Acetaminophen**	0.0080	U	ug/L	P393796	
		Acetamiprid**	0.0020	U	ug/L	P393796	
		Endothall	0.25	U	ug/L	P393743	
		Glufosinate	0.10	U	ug/L	P393743	MS
		Glyphosate	2.6		ug/L	P393743	MS
		Afidopyropen**	0.0020	U	ug/L	P393796	
		Bentazon	0.017		ug/L	P393796	MS
		Benzovindiflupyr**	0.0020	U	ug/L	P393796	
		Carbamazepine**	9.4E-04	I	ug/L	P393796	
		Clothianidin**	0.0020	U	ug/L	P393796	
		Dinotefuran**	0.0020	U	ug/L	P393796	
		Diuron	0.0020	U	ug/L	P393796	
		Fenuron	0.016	U	ug/L	P393796	
		Fluridone**	0.0019	I	ug/L	P393796	
		Imazapyr**	0.083		ug/L	P393796	

Field ID: G2SE0002 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2225237	EPA 8321B	Hydrocodone**	0.0020	U	ug/L	P393796	
		Ibuprofen**	0.020	U	ug/L	P393796	
		Imidacloprid	0.0038	I	ug/L	P393796	
		Linuron	0.0040	U	ug/L	P393796	
		Mandestrobin**	0.0020	U	ug/L	P393796	
		MCPP	0.0020	U	ug/L	P393796	
		Naproxen**	0.0080	U	ug/L	P393796	
		Primidone**	0.0040	U	ug/L	P393796	
		Pyraclostrobin**	0.0020	U	ug/L	P393796	
		Thiamethoxam**	0.0020	U	ug/L	P393796	
		Tolfenpyrad**	0.0020	U	ug/L	P393796	
		Triclopyr**	0.0040	U	ug/L	P393796	
2225240	EPA 8270E	Aldrin	0.83	U	ng/L	P393752	
		Dieldrin	0.44	U	ng/L	P393752	
		Alpha-BHC	2.2	U	ng/L	P393752	
		Kepone**	6.1	U	ng/L	P393752	
		Alpha-Chlordane	1.1	U	ng/L	P393752	
		Beta-BHC	8.9	U	ng/L	P393752	
		Beta-Cyfluthrin**	17	U	ng/L	P393752	
		Bifenthrin**	4.4	U	ng/L	P393752	
		Delta-BHC	8.9	U	ng/L	P393752	
		Gamma-BHC	8.9	U	ng/L	P393752	
		Chlorothalonil	2.2	UJ	ng/L	P393752	RPD
		Cis-Nonachlor**	1.1	U	ng/L	P393752	
		Cypermethrin	22	U	ng/L	P393752	
		Dacthal**	1.1	U	ng/L	P393752	
		DDD-p,p'	5.6	U	ng/L	P393752	
		DDE-p,p'	5.6	U	ng/L	P393752	
		DDT-p,p'	6.7	U	ng/L	P393752	
		Deltamethrin**	22	U	ng/L	P393752	
		Dicofol	33	U	ng/L	P393752	
		Endosulfan I	4.4	U	ng/L	P393752	
		Endosulfan II	4.4	U	ng/L	P393752	
		Endosulfan Sulfate	2.2	U	ng/L	P393752	
		Endrin	2.2	U	ng/L	P393752	
		Endrin Aldehyde	2.2	U	ng/L	P393752	
		Endrin Ketone	2.2	U	ng/L	P393752	
		Ethalfluralin**	3.3	U	ng/L	P393752	
		Gamma-Chlordane	1.1	U	ng/L	P393752	
		Dichlobenil**	2.2	U	ng/L	P393752	
		Esfenvalerate**	22	U	ng/L	P393752	
		Fenpropathrin**	11	U	ng/L	P393752	
		Heptachlor	1.7	U	ng/L	P393752	
		Heptachlor Epoxide	2.2	U	ng/L	P393752	
		Hexachlorobenzene	2.2	U	ng/L	P393752	

Field ID: G2SE0002 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2225240	EPA 8270E	Lambda-Cyhalothrin**	17	U	ng/L	P393752	
		Methoxychlor	4.4	U	ng/L	P393752	
		Mirex	2.2	U	ng/L	P393752	
		MGK-264**	3.3	U	ng/L	P393752	
		Permethrin	11	U	ng/L	P393752	
		Phenothrin**	33	U	ng/L	P393752	
		Piperonyl Butoxide**	1.7	U	ng/L	P393752	
		Prallethrin**	28	U	ng/L	P393752	
		Tau-Fluvalinate**	3.9	U	ng/L	P393752	
		Tetramethrin**	8.9	U	ng/L	P393752	
		Trans-Nonachlor**	1.1	U	ng/L	P393752	
		Triclosan Methyl**	1.1	U	ng/L	P393752	
		Trifluralin	2.8	U	ng/L	P393752	
	EPA 8276	Chlordane	5.6	U	ng/L	P393752	MS
		Toxaphene	33	UJ	ng/L	P393752	LCS
2225241	EPA 8270E	Acetochlor	0.28	U	ng/L	P393800	
		Alachlor	0.28	U	ng/L	P393800	
		Ametryn	0.67	U	ng/L	P393800	
		Atrazine	6.9		ng/L	P393800	
		Atrazine Desethyl	1.7	U	ng/L	P393800	
		Azinphos Methyl	2.2	U	ng/L	P393800	
		Azoxystrobin**	0.56	U	ng/L	P393800	
		Bromacil	0.63	I	ng/L	P393800	
		Butylate	0.44	U	ng/L	P393800	
		Caffeine**	13	IV	ng/L	P393800	MS
		Carbophenothion	0.56	U	ng/L	P393800	
		Carfentrazone Ethyl**	0.11	U	ng/L	P393800	
		Chlorpyrifos Ethyl	0.28	U	ng/L	P393800	MS
		Chlorpyrifos Methyl	0.056	U	ng/L	P393800	
		Cyanazine	3.6	U	ng/L	P393800	
		Demeton	1.7	U	ng/L	P393800	
		Diazinon	0.14	U	ng/L	P393800	
		Difenoconazole**	0.67	U	ng/L	P393800	
		Dimethenamid**	0.11	U	ng/L	P393800	
		Disulfoton	0.56	U	ng/L	P393800	
		Dithiopyr**	0.19	U	ng/L	P393800	MS
		EPTC	1.4	U	ng/L	P393800	
		Ethion	0.17	U	ng/L	P393800	
		Ethoprop	0.11	U	ng/L	P393800	
		Fenamiphos	0.56	U	ng/L	P393800	
		Fenbuconazole**	0.35	I	ng/L	P393800	
		Fipronil	0.28	U	ng/L	P393800	
		Fipronil Desulfinyl**	0.14	U	ng/L	P393800	
		Fipronil Sulfide	0.17	U	ng/L	P393800	
		Fipronil Sulfone	0.17	U	ng/L	P393800	

Field ID: G2SE0002 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2225241	EPA 8270E	Fluazifop-P-butyl**	0.11	U	ng/L	P393800	
		Fludioxonil**	0.14	U	ng/L	P393800	
		Flumioxazin**	1.9	U	ng/L	P393800	
		Flutolanil**	0.11	U	ng/L	P393800	
		Fluxapyroxad**	0.11	U	ng/L	P393800	
		Fonofos	0.22	U	ng/L	P393800	
		Hexazinone	2.5		ng/L	P393800	
		Imazalil**	0.83	U	ng/L	P393800	
		Iprodione**	0.67	U	ng/L	P393800	
		Malathion	0.39	U	ng/L	P393800	
		Metalaxyl	2.8	I	ng/L	P393800	
		Metolachlor	27		ng/L	P393800	
		Metribuzin	3.6	U	ng/L	P393800	
		Mevinphos	1.2	U	ng/L	P393800	
		Molinate	0.33	U	ng/L	P393800	
		Myclobutanil**	0.28	U	ng/L	P393800	
		Naled**	1.7	U	ng/L	P393800	
		Norflurazon	32		ng/L	P393800	
		Oxadiazon	0.97	I	ng/L	P393800	
		Oxyfluorfen**	0.17	U	ng/L	P393800	
		Parathion Ethyl	0.28	U	ng/L	P393800	
		Parathion Methyl	0.61	U	ng/L	P393800	
		Pendimethalin	1.1	U	ng/L	P393800	
		Phorate	0.58	U	ng/L	P393800	
		Prodiamine**	0.19	U	ng/L	P393800	
		Prometon	67		ng/L	P393800	
		Prometryn	0.22	U	ng/L	P393800	
		Pronamide**	0.17	U	ng/L	P393800	
		Propiconazole**	0.56	U	ng/L	P393800	
		Pyriproxyfen**	0.14	U	ng/L	P393800	
		Simazine	0.56	U	ng/L	P393800	
		Sulfentrazone**	0.93	I	ng/L	P393800	
		Tebuconazole**	0.56	U	ng/L	P393800	
		Terbufos	0.11	U	ng/L	P393800	
		Terbuthylazine	0.47	U	ng/L	P393800	

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8276: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8270E: V - Due to the presence of caffeine in both the Method Blank and the sample. Result for caffeine confirmed by re-extraction and re-analysis. MS accuracy for fipronil sulfone and fipronil not assessed due to high content of these parameters in the sample spiked.

Sample Location: Field Blank **Collection Date/Time: 02/11/2021 11:00**

Field ID: FB_021121 Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2225227	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P393728	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P394003	
		Sulfate	0.20	U	mg SO4/L	P394006	
	SM 2120 B-2011	Color (true)	2.5	U	PCU	P393734	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P393801	
	SM 2540 C-2011	TDS	15	U	mg/L	P394108	
	SM 2540 D-2011	TSS	2	U	mg/L	P394092	
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P393804	
2225228	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P394187	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P393952	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P393888	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P393873	
	SM 5310 B-2011	Organic Carbon	0.50	U	mg C/L	P394373	
2225229	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P393731	
2225238	EPA 8321B	Aldicarb	0.020	U	ug/L	P393832	
		Aldicarb Sulfone	0.0020	U	ug/L	P393832	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P393832	
		Carbaryl	0.0020	U	ug/L	P393832	
		Carbofuran	0.0020	U	ug/L	P393832	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P393832	RPD
		Methiocarb	0.0020	U	ug/L	P393832	
		Methomyl	0.0020	U	ug/L	P393832	RPD
		Oxamyl	0.0020	U	ug/L	P393832	
		Propoxur	0.0020	U	ug/L	P393832	
2225239		2,4-D	0.0020	U	ug/L	P393796	
		Acesulfame K	0.10	U	ug/L	P393743	MS
		AMPA	0.10	U	ug/L	P393743	MS
		Sucralose	0.010	U	ug/L	P393743	
		Acetaminophen**	0.0080	U	ug/L	P393796	
		Acetamiprid**	0.0020	U	ug/L	P393796	
		Endothall	0.25	U	ug/L	P393743	
		Glufosinate	0.10	U	ug/L	P393743	MS
		Glyphosate	0.10	U	ug/L	P393743	MS
		Afidopyropen**	0.0020	U	ug/L	P393796	
		Bentazon	8.0E-04	U	ug/L	P393796	MS
		Benzovindiflupyr**	0.0020	U	ug/L	P393796	
		Carbamazepine**	8.0E-04	U	ug/L	P393796	
		Clothianidin**	0.0020	U	ug/L	P393796	
		Dinotefuran**	0.0020	U	ug/L	P393796	
		Diuron	0.0020	U	ug/L	P393796	
		Fenuron	0.016	U	ug/L	P393796	
		Fluridone**	8.0E-04	U	ug/L	P393796	
		Imazapyr**	0.0040	U	ug/L	P393796	

Field ID: FB_021121 Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2225239	EPA 8321B	Hydrocodone**	0.0020	U	ug/L	P393796	
		Ibuprofen**	0.020	U	ug/L	P393796	
		Imidacloprid	0.0020	U	ug/L	P393796	
		Linuron	0.0040	U	ug/L	P393796	
		Mandestrobin**	0.0020	U	ug/L	P393796	
		MCPP	0.0020	U	ug/L	P393796	
		Naproxen**	0.0080	U	ug/L	P393796	
		Primidone**	0.0040	U	ug/L	P393796	
		Pyraclostrobin**	0.0020	U	ug/L	P393796	
		Thiamethoxam**	0.0020	U	ug/L	P393796	
		Tolfenpyrad**	0.0020	U	ug/L	P393796	
		Triclopyr**	0.0040	U	ug/L	P393796	
2225242	EPA 8270E	Aldrin	0.82	U	ng/L	P393752	
		Dieldrin	0.44	U	ng/L	P393752	
		Alpha-BHC	2.2	U	ng/L	P393752	
		Kepone**	6.0	U	ng/L	P393752	
		Alpha-Chlordane	1.1	U	ng/L	P393752	
		Beta-BHC	8.8	U	ng/L	P393752	
		Beta-Cyfluthrin**	16	U	ng/L	P393752	
		Bifenthrin**	4.4	U	ng/L	P393752	
		Delta-BHC	8.8	U	ng/L	P393752	
		Gamma-BHC	8.8	U	ng/L	P393752	
		Chlorothalonil	2.2	UJ	ng/L	P393752	RPD
		Cis-Nonachlor**	1.1	U	ng/L	P393752	
		Cypermethrin	22	U	ng/L	P393752	
		Dacthal**	1.1	U	ng/L	P393752	
		DDD-p,p'	5.5	U	ng/L	P393752	
		DDE-p,p'	5.5	U	ng/L	P393752	
		DDT-p,p'	6.6	U	ng/L	P393752	
		Deltamethrin**	22	U	ng/L	P393752	
		Dicofol	33	U	ng/L	P393752	
		Endosulfan I	4.4	U	ng/L	P393752	
		Endosulfan II	4.4	U	ng/L	P393752	
		Endosulfan Sulfate	2.2	U	ng/L	P393752	
		Endrin	2.2	U	ng/L	P393752	
		Endrin Aldehyde	2.2	U	ng/L	P393752	
		Endrin Ketone	2.2	U	ng/L	P393752	
		Ethalfluralin**	3.3	U	ng/L	P393752	
		Gamma-Chlordane	1.1	U	ng/L	P393752	
		Dichlobenil**	2.2	U	ng/L	P393752	
		Esfenvalerate**	22	U	ng/L	P393752	
		Fenpropathrin**	11	U	ng/L	P393752	
		Heptachlor	1.6	U	ng/L	P393752	
		Heptachlor Epoxide	2.2	U	ng/L	P393752	
		Hexachlorobenzene	2.2	U	ng/L	P393752	

Field ID: FB_021121 Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2225242	EPA 8270E	Lambda-Cyhalothrin**	16	U	ng/L	P393752	
		Methoxychlor	4.4	U	ng/L	P393752	
		Mirex	2.2	U	ng/L	P393752	
		MGK-264**	3.3	U	ng/L	P393752	
		Permethrin	11	U	ng/L	P393752	
		Phenothrin**	33	U	ng/L	P393752	
		Piperonyl Butoxide**	1.6	U	ng/L	P393752	
		Prallethrin**	27	U	ng/L	P393752	
		Tau-Fluvalinate**	3.8	U	ng/L	P393752	
		Tetramethrin**	8.8	U	ng/L	P393752	
		Trans-Nonachlor**	1.1	U	ng/L	P393752	
		Triclosan Methyl**	1.1	U	ng/L	P393752	
		Trifluralin	2.7	U	ng/L	P393752	
	EPA 8276	Chlordane	5.5	U	ng/L	P393752	MS
		Toxaphene	33	UJ	ng/L	P393752	LCS
2225243	EPA 8270E	Acetochlor	0.25	U	ng/L	P393800	
		Alachlor	0.25	U	ng/L	P393800	
		Ametryn	0.60	U	ng/L	P393800	
		Atrazine	0.25	U	ng/L	P393800	
		Atrazine Desethyl	1.5	U	ng/L	P393800	
		Azinphos Methyl	2.0	U	ng/L	P393800	
		Azoxystrobin**	0.50	U	ng/L	P393800	
		Bromacil	0.50	U	ng/L	P393800	
		Butylate	0.40	U	ng/L	P393800	
		Caffeine**	5.0	UQ	ng/L	P394411	
		Carbophenothion	0.50	U	ng/L	P393800	
		Carfentrazone Ethyl**	0.10	U	ng/L	P393800	
		Chlorpyrifos Ethyl	0.25	U	ng/L	P393800	MS
		Chlorpyrifos Methyl	0.050	U	ng/L	P393800	
		Cyanazine	3.2	U	ng/L	P393800	
		Demeton	1.5	U	ng/L	P393800	
		Diazinon	0.12	U	ng/L	P393800	
		Difenoconazole**	0.60	U	ng/L	P393800	
		Dimethenamid**	0.10	U	ng/L	P393800	
		Disulfoton	0.50	U	ng/L	P393800	
		Dithiopyr**	0.17	U	ng/L	P393800	MS
		EPTC	1.2	U	ng/L	P393800	
		Ethion	0.15	U	ng/L	P393800	
		Ethoprop	0.10	U	ng/L	P393800	
		Fenamiphos	0.50	U	ng/L	P393800	
		Fenbuconazole**	0.12	U	ng/L	P393800	
		Fipronil	0.25	U	ng/L	P393800	
		Fipronil Desulfinyl**	0.12	U	ng/L	P393800	
		Fipronil Sulfide	0.15	U	ng/L	P393800	
		Fipronil Sulfone	0.15	U	ng/L	P393800	

Field ID: FB_021121 Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2225243	EPA 8270E	Fluazifop-P-butyl**	0.10	U	ng/L	P393800	
		Fludioxonil**	0.12	U	ng/L	P393800	
		Flumioxazin**	1.7	U	ng/L	P393800	
		Flutolanil**	0.10	U	ng/L	P393800	
		Fluxapyroxad**	0.10	U	ng/L	P393800	
		Fonofos	0.20	U	ng/L	P393800	
		Hexazinone	0.50	U	ng/L	P393800	
		Imazalil**	0.75	U	ng/L	P393800	
		Iprodione**	0.60	U	ng/L	P393800	
		Malathion	0.35	U	ng/L	P393800	
		Metalaxyl	0.75	U	ng/L	P393800	
		Metolachlor	0.35	U	ng/L	P393800	
		Metribuzin	3.2	U	ng/L	P393800	
		Mevinphos	1.0	U	ng/L	P393800	
		Molinate	0.30	U	ng/L	P393800	
		Myclobutanil**	0.25	U	ng/L	P393800	
		Naled**	1.5	U	ng/L	P393800	
		Norflurazon	0.50	U	ng/L	P393800	
		Oxadiazon	0.30	U	ng/L	P393800	
		Oxyfluorfen**	0.15	U	ng/L	P393800	
		Parathion Ethyl	0.25	U	ng/L	P393800	
		Parathion Methyl	0.55	U	ng/L	P393800	
		Pendimethalin	1.0	U	ng/L	P393800	
		Phorate	0.52	U	ng/L	P393800	
		Prodiamine**	0.17	U	ng/L	P393800	
		Prometon	0.90	U	ng/L	P393800	
		Prometryn	0.20	U	ng/L	P393800	
		Pronamide**	0.15	U	ng/L	P393800	
		Propiconazole**	0.50	U	ng/L	P393800	
		Pyriproxyfen**	0.12	U	ng/L	P393800	
		Simazine	0.50	U	ng/L	P393800	
		Sulfentrazone**	0.50	U	ng/L	P393800	
		Tebuconazole**	0.50	U	ng/L	P393800	
		Terbufos	0.10	U	ng/L	P393800	
		Terbuthylazine	0.42	U	ng/L	P393800	

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8276: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8270E: MS accuracy for fipronil sulfone and fipronil not assessed due to high content of these parameters in the sample spiked. Sample expired for preparation for caffeine due to need for re-extraction.

Sample Location: Sweetwater Branch @ 441 **Collection Date/Time: 02/11/2021 12:45**

Field ID: G3SE0025 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2225235	EPA 8321B	2,4-D	0.0049	I	ug/L	P393796	
		Acesulfame K	0.10	U	ug/L	P393743	MS
		AMPA	0.10	U	ug/L	P393743	MS
		Sucralose	0.010	U	ug/L	P393743	
		Acetaminophen**	0.013	I	ug/L	P393796	
		Acetamiprid**	0.0020	U	ug/L	P393796	
		Endothall	0.25	U	ug/L	P393743	
		Glufosinate	0.10	U	ug/L	P393743	MS
		Glyphosate	0.10	U	ug/L	P393743	MS
		Afidopyropen**	0.0020	U	ug/L	P393796	
		Bentazon	8.0E-04	U	ug/L	P393796	MS
		Benzovindiflupyr**	0.0020	U	ug/L	P393796	
		Carbamazepine**	8.0E-04	U	ug/L	P393796	
		Clothianidin**	0.0020	U	ug/L	P393796	
		Dinotefuran**	0.0020	U	ug/L	P393796	
		Diuron	0.0020	U	ug/L	P393796	
		Fenuron	0.016	U	ug/L	P393796	
		Fluridone**	8.0E-04	U	ug/L	P393796	
		Imazapyr**	0.034		ug/L	P393796	
		Hydrocodone**	0.0020	U	ug/L	P393796	
		Ibuprofen**	0.020	U	ug/L	P393796	
		Imidacloprid	0.0020	U	ug/L	P393796	
		Linuron	0.0040	U	ug/L	P393796	
		Mandestrobin**	0.0020	U	ug/L	P393796	
		MCPP	0.0020	U	ug/L	P393796	
		Naproxen**	0.0080	U	ug/L	P393796	
		Primidone**	0.0040	U	ug/L	P393796	
		Pyraclostrobin**	0.0020	U	ug/L	P393796	
		Thiamethoxam**	0.0020	U	ug/L	P393796	
		Tolfenpyrad**	0.0020	U	ug/L	P393796	
		Triclopyr**	0.0040	U	ug/L	P393796	

Sample Location: Fort Drum Creek @ 441 **Collection Date/Time: 02/11/2021 13:00**

Field ID: G3SE0024 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2225224	EPA 180.1 Rev. 2.0	Turbidity	1.1		NTU	P393728	
	EPA 300.0 Rev. 2.1	Chloride	17		mg Cl/L	P394003	
		Sulfate	0.20	U	mg SO4/L	P394006	
	SM 2120 B-2011	Color (true)	160		PCU	P393734	
	SM 2320 B-2011	Total Alkalinity	10		mg CaCO3/L	P393801	
	SM 2540 C-2011	TDS	79		mg/L	P394110	
	SM 2540 D-2011	TSS	2	I A	mg/L	P394094	
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P393804	
2225225	EPA 350.1 Rev. 2.0	Ammonia-N	0.021		mg N/L	P394187	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.55		mg N/L	P393952	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	I	mg N/L	P393759	
	EPA 365.1 Rev. 2.0	Total-P	0.071		mg P/L	P393873	
	SM 5310 B-2011	Organic Carbon	13		mg C/L	P394373	
2225226	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.056		mg P/L	P393731	

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P393728

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P394003

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P394006

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P394187

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P393952

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P393758

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P393759

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P393888

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P393873

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: P393731

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

Reference Method: EPA 8270E
Batch ID: P393752

Component	Result	Code	Units
Aldrin	0.75	U	ng/L
Alpha-BHC	2.0	U	ng/L
Alpha-Chlordane	1.0	U	ng/L
Beta-BHC	8.0	U	ng/L
Beta-Cyfluthrin	15	U	ng/L
Bifenthrin	4.0	U	ng/L
Chlorothalonil	2.0	U	ng/L
Cis-Nonachlor	1.0	U	ng/L
Cypermethrin	20	U	ng/L
Dacthal	1.0	U	ng/L
DDD-p,p'	5.0	U	ng/L
DDE-p,p'	5.0	U	ng/L
DDT-p,p'	6.0	U	ng/L
Delta-BHC	8.0	U	ng/L
Deltamethrin	20	U	ng/L
Dichlobenil	2.0	U	ng/L
Dicofol	30	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	4.0	U	ng/L
Endosulfan II	4.0	U	ng/L
Endosulfan Sulfate	2.0	U	ng/L
Endrin	2.0	U	ng/L
Endrin Aldehyde	2.0	U	ng/L
Endrin Ketone	2.0	U	ng/L
Esfenvalerate	20	U	ng/L
Ethalfluralin	3.0	U	ng/L
Fenpropathrin	10	U	ng/L
Gamma-BHC	8.0	U	ng/L
Gamma-Chlordane	1.0	U	ng/L
Heptachlor	1.5	U	ng/L
Heptachlor Epoxide	2.0	U	ng/L
Hexachlorobenzene	2.0	U	ng/L
Kepone	5.5	U	ng/L
Lambda-Cyhalothrin	15	U	ng/L
Methoxychlor	4.0	U	ng/L
MGK-264	3.0	U	ng/L
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L
Phenothrin	30	U	ng/L
Piperonyl Butoxide	1.5	U	ng/L
Prallethrin	25	U	ng/L
Tau-Fluvalinate	3.5	U	ng/L
Tetramethrin	8.0	U	ng/L
Trans-Nonachlor	1.0	U	ng/L
Triclosan Methyl	1.0	U	ng/L
Trifluralin	2.5	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P393800

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azoxystrobin	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Caffeine	6.2	I	ng/L
Carbophenothion	0.50	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Cyanazine	3.2	U	ng/L
Demeton	1.5	U	ng/L
Diazinon	0.12	U	ng/L
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.18	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.12	U	ng/L
Flumioxazin	1.8	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.75	U	ng/L
Iprodione	0.60	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.75	U	ng/L
Metolachlor	0.35	U	ng/L
Metribuzin	3.2	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.30	U	ng/L
Myclobutanil	0.25	U	ng/L
Naled	1.5	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P393800

Component	Result	Code	Units
Pendimethalin	1.0	U	ng/L
Phorate	0.52	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Pronamide	0.15	U	ng/L
Propiconazole	0.50	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Simazine	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L

Reference Method: EPA 8270E
Batch ID: P394411

Component	Result	Code	Units
Caffeine	5.0	U	ng/L

Reference Method: EPA 8276
Batch ID: P393752

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

Reference Method: EPA 8321B
Batch ID: P393743

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: P393796

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
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8321B
Batch ID: P393796

Component	Result	Code	Units
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: P393832

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 2120 B-2011
Batch ID: P393734

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P393801

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

Reference Method: SM 2540 C-2011
Batch ID: P394108

Component	Result	Code	Units
TDS	15	U	mg/L

Quality Assurance Report
Method Blank Results

Reference Method: SM 2540 C-2011
Batch ID: P394109

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-2011
Batch ID: P394110

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P394092

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P394093

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P394094

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P393804

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P394373

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: P394003

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P394006

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P394187

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P393952

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	98.9		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P393758

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P393759

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	106		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P393888

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P393873

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: P393731

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: P393752

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	44.2	44.7	P/P	20 - 110
Alpha-BHC	80.6	82.3	P/P	58 - 130
Alpha-Chlordane	90.5	89.3	P/P	61 - 105
Beta-BHC	94.9	101	P/P	53 - 164
Beta-Cyfluthrin	105	82.4	P/P	40 - 140
Bifenthrin	82.4	72.5	P/P	44 - 122
Chlorothalonil	96.3	62.6	P/P	20 - 201
Cis-Nonachlor	95.1	93.7	P/P	60 - 110
Cypermethrin	75.5	66.8	P/P	43 - 131
Dacthal	97.4	98.4	P/P	76 - 108
DDD-p,p'	104	101	P/P	68 - 118
DDE-p,p'	82.6	83.4	P/P	56 - 107
DDT-p,p'	90.4	86.6	P/P	55 - 122
Delta-BHC	116	102	P/P	60 - 181
Deltamethrin	99.3	89.1	P/P	51 - 139
Dichlobenil	39.0	45.5	P/P	20 - 106
Dicofol	117	116	P/P	56 - 130
Dieldrin	89.2	88.0	P/P	58 - 112
Endosulfan I	93.9	85.0	P/P	68 - 115
Endosulfan II	132	108	P/P	69 - 133
Endosulfan Sulfate	89.7	82.6	P/P	65 - 126
Endrin	86.4	90.7	P/P	66 - 118
Endrin Aldehyde	102	98.6	P/P	60 - 132
Endrin Ketone	94.9	92.9	P/P	68 - 121
Esfenvalerate	94.5	79.5	P/P	42 - 116
Ethalfluralin	80.8	79.9	P/P	50 - 118
Fenpropathrin	117	97.2	P/P	55 - 132
Gamma-BHC	94.2	95.4	P/P	65 - 147
Gamma-Chlordane	86.3	85.7	P/P	56 - 103
Heptachlor	65.2	63.5	P/P	47 - 95.0
Heptachlor Epoxide	90.7	89.8	P/P	67 - 107
Hexachlorobenzene	62.8	64.0	P/P	45 - 99.0
Kepone	110	117	P/P	28 - 128
Lambda-Cyhalothrin	97.1	71.8	P/P	41 - 135
Methoxychlor	101	98.2	P/P	61 - 138
MGK-264	62.7	66.9	P/P	20 - 109
Mirex	62.3	60.0	P/P	36 - 92.0
Permethrin	78.4	70.3	P/P	45 - 111
Phenothrin	52.8	44.4	P/P	22 - 88.0
Piperonyl Butoxide	108	106	P/P	67 - 120
Prallethrin	73.7	70.9	P/P	28 - 92.0
Tau-Fluvalinate	101	80.8	P/P	38 - 145
Tetramethrin	122	123	P/P	29 - 150
Trans-Nonachlor	85.0	85.0	P/P	54 - 105
Triclosan Methyl	102	105	P/P	76 - 115
Trifluralin	78.2	79.5	P/P	53 - 111

Reference Method: EPA 8270E
Batch ID: P393800

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	91.6	87.6	P/P	70 - 121

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P393800

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Alachlor	86.5	84.4	P/P	70 - 119
Ametryn	90.8	88.7	P/P	61 - 135
Atrazine	95.7	92.8	P/P	76 - 123
Atrazine Desethyl	98.2	99.6	P/P	35 - 140
Azinphos Methyl	119	106	P/P	57 - 163
Azoxystrobin	226	230	P/P	43 - 231
Bromacil	88.9	84.4	P/P	42 - 123
Butylate	73.8	70.8	P/P	34 - 92.0
Caffeine	77.7	89.2	P/P	70 - 130
Carbophenothion	80.6	77.0	P/P	61 - 121
Carfentrazone Ethyl	87.5	82.9	P/P	62 - 139
Chlorpyrifos Ethyl	75.2	74.4	P/P	67 - 121
Chlorpyrifos Methyl	82.4	86.6	P/P	67 - 120
Cyanazine	107	105	P/P	20 - 226
Demeton	74.0	76.5	P/P	35 - 125
Diazinon	93.0	89.4	P/P	70 - 122
Difenoconazole	153	132	P/P	56 - 186
Dimethenamid	87.1	88.5	P/P	67 - 119
Disulfoton	75.4	83.0	P/P	47 - 120
Dithiopyr	79.2	75.1	P/P	67 - 118
EPTC	65.0	60.8	P/P	33 - 90.0
Ethion	69.6	64.2	P/P	40 - 133
Ethoprop	86.8	86.6	P/P	61 - 121
Fenamiphos	81.0	69.8	P/P	31 - 139
Fenbuconazole	100	94.5	P/P	66 - 141
Fipronil	91.1	86.8	P/P	62 - 129
Fipronil Desulfinyl	82.3	83.5	P/P	59 - 126
Fipronil Sulfide	74.1	67.5	P/P	63 - 117
Fipronil Sulfone	65.7	65.4	P/P	57 - 117
Fluazifop-P-butyl	88.6	83.2	P/P	63 - 124
Fludioxonil	80.2	80.6	P/P	63 - 123
Flumioxazin	212	190	P/P	34 - 245
Flutolanil	83.1	75.7	P/P	56 - 131
Fluxapyroxad	73.6	70.3	P/P	57 - 117
Fonofos	87.4	84.3	P/P	61 - 116
Hexazinone	82.9	81.1	P/P	55 - 138
Imazalil	89.2	88.1	P/P	33 - 143
Iprodione	87.2	79.1	P/P	59 - 118
Malathion	93.2	90.4	P/P	62 - 138
Metalaxyl	80.3	79.0	P/P	24 - 147
Metolachlor	80.4	78.0	P/P	68 - 118
Metribuzin	93.0	93.4	P/P	20 - 239
Mevinphos	84.4	85.1	P/P	46 - 124
Molinate	71.6	69.3	P/P	46 - 100
Myclobutanil	74.5	73.7	P/P	32 - 149
Naled	53.3	52.3	P/P	32 - 95.0
Norflurazon	79.4	74.5	P/P	57 - 127
Oxadiazon	80.3	75.1	P/P	63 - 118
Oxyfluorfen	92.1	90.1	P/P	69 - 137
Parathion Ethyl	91.9	89.3	P/P	70 - 113
Parathion Methyl	110	119	P/P	71 - 130
Pendimethalin	78.1	77.1	P/P	55 - 118

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P393800

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Phorate	77.0	77.9	P/P	46 - 125
Prodiamine	45.4	41.2	P/P	20 - 141
Prometon	80.9	83.5	P/P	54 - 122
Prometryn	88.8	87.6	P/P	66 - 124
Pronamide	93.3	93.9	P/P	79 - 122
Propiconazole	77.6	72.6	P/P	61 - 126
Pyriproxyfen	80.4	75.6	P/P	52 - 131
Simazine	97.9	101	P/P	75 - 128
Sulfentrazone	76.8	75.3	P/P	20 - 132
Tebuconazole	29.1	25.7	P/P	20 - 116
Terbufos	87.0	87.1	P/P	61 - 117
Terbuthylazine	86.8	84.9	P/P	74 - 116

Reference Method: EPA 8270E
Batch ID: P394411

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Caffeine	82.1	81.2	P/P	70 - 130

Reference Method: EPA 8276
Batch ID: P393752

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	107	100	P/P	56 - 117
Toxaphene	128	120	F/F	45 - 116

Reference Method: EPA 8321B
Batch ID: P393743

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	96.6		P	40 - 150
AMPA	115		P	40 - 150
Endothall	143		P	40 - 150
Glufosinate	127		P	40 - 150
Glyphosate	114		P	40 - 140
Sucralose	98.0		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P393796

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	129		P	30 - 160
Acetaminophen	105		P	30 - 160
Acetamiprid	104		P	30 - 160
Afidopyropen	86.0		P	30 - 160
Bentazon	81.0		P	30 - 160
Benzovindiflupyr	78.1		P	30 - 160
Carbamazepine	107		P	30 - 160
Clothianidin	107		P	30 - 160
Dinotefuran	102		P	30 - 160
Diuron	82.9		P	30 - 160
Fenuron	99.7		P	30 - 160

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P393796

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluridone	90.1		P	30 - 160
Hydrocodone	107		P	30 - 160
Ibuprofen	83.2		P	30 - 160
Imazapyr	103		P	30 - 160
Imidacloprid	118		P	30 - 160
Linuron	84.1		P	30 - 160
Mandestrobin	89.6		P	30 - 160
MCPP	111		P	30 - 160
Naproxen	69.2		P	30 - 160
Primidone	115		P	30 - 160
Pyraclostrobin	74.5		P	30 - 160
Thiamethoxam	121		P	30 - 160
Tolfenpyrad	40.7		P	30 - 160
Triclopyr	101		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P393832

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	87.1		P	30 - 160
Aldicarb	78.9		P	30 - 160
Aldicarb Sulfone	102		P	30 - 160
Aldicarb Sulfoxide	121		P	30 - 160
Carbaryl	62.3		P	30 - 160
Carbofuran	67.5		P	30 - 160
Methiocarb	70.1		P	30 - 160
Methomyl	97.2		P	30 - 160
Oxamyl	103		P	30 - 160
Propoxur	64.8		P	30 - 160

Reference Method: SM 2120 B-2011
Batch ID: P393734

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	97.4		P	85 - 115

Reference Method: SM 2320 B-2011
Batch ID: P393801

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.7		P	93 - 104

Reference Method: SM 4500 F-C-2011
Batch ID: P393804

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.7		P	90 - 106

Reference Method: SM 5310 B-2011
Batch ID: P394373

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P394373

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.2		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P394003

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2225224	Chloride	98.6		P	90 - 110
2225313	Chloride	98.3		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P394006

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2225224	Sulfate	100		P	90 - 110
2225313	Sulfate	98.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P394187

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2225169	Ammonia-N	96.4	97.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P393952

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2225273	Kjeldahl Nitrogen	101	105	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P393758

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2225145	NO2NO3-N	99.9	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P393759

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2225225	NO2NO3-N	100	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P393888

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2224756	NO2NO3-N	99.0		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P393873

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2225222	Total-P	106	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P393731

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2225172	O-Phosphate-P	95.8	96.7	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P393752

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2225254	Alpha-BHC	73.8	84.3	P/P	53 - 147
2225254	Alpha-Chlordane	82.7	85.7	P/P	56 - 107
2225254	Beta-BHC	95.1	101	P/P	43 - 182
2225254	Beta-Cyfluthrin	74.5	94.7	P/P	42 - 157
2225254	Bifenthrin	81.0	88.5	P/P	52 - 124
2225254	Chlorothalonil	81.4	95.8	P/P	10 - 265
2225254	Cis-Nonachlor	84.1	90.4	P/P	55 - 112
2225254	Cypermethrin	61.6	79.1	P/P	46 - 144
2225254	Dacthal	91.1	90.9	P/P	72 - 110
2225254	DDD-p,p'	88.7	93.1	P/P	58 - 123
2225254	DDE-p,p'	77.0	82.4	P/P	52 - 106
2225254	DDT-p,p'	84.6	89.2	P/P	50 - 127
2225254	Delta-BHC	110	133	P/P	56 - 222
2225254	Deltamethrin	82.9	100	P/P	47 - 152
2225254	Dichlobenil	40.0	36.4	P/P	22 - 99.0
2225254	Dicofol	97.9	96.7	P/P	38 - 145
2225254	Endosulfan I	84.8	87.5	P/P	64 - 124
2225254	Endosulfan II	95.0	106	P/P	52 - 159
2225254	Endosulfan Sulfate	71.2	81.0	P/P	62 - 136
2225254	Endrin	96.6	98.5	P/P	57 - 126
2225254	Endrin Aldehyde	91.3	100	P/P	41 - 128
2225254	Endrin Ketone	87.9	90.4	P/P	67 - 129
2225254	Esfenvalerate	79.1	97.1	P/P	50 - 120
2225254	Ethalfluralin	75.4	77.1	P/P	41 - 125
2225254	Fenpropathrin	95.9	119	P/P	40 - 202
2225254	Gamma-BHC	110	115	P/P	58 - 180
2225254	Gamma-Chlordane	77.2	81.3	P/P	54 - 103
2225254	Heptachlor	59.7	65.0	P/P	46 - 94.0
2225254	Heptachlor Epoxide	82.1	87.1	P/P	62 - 111
2225254	Hexachlorobenzene	60.1	65.8	P/P	42 - 95.0
2225254	Lambda-Cyhalothrin	79.4	99.3	P/P	37 - 162
2225254	Methoxychlor	96.9	103	P/P	52 - 143
2225254	MGK-264	54.3	67.5	P/P	37 - 102
2225254	Mirex	64.6	70.3	P/P	43 - 91.0
2225254	Permethrin	69.5	80.1	P/P	48 - 113
2225254	Phenothrin	48.5	65.5	P/P	30 - 104
2225254	Piperonyl Butoxide	98.0	113	P/P	67 - 127
2225254	Prallethrin	52.2	66.3	P/P	28 - 102
2225254	Tau-Fluvalinate	80.6	96.0	P/P	46 - 174
2225254	Tetramethrin	125	111	P/P	28 - 176
2225254	Trans-Nonachlor	77.6	82.3	P/P	51 - 103
2225254	Triclosan Methyl	92.3	96.0	P/P	67 - 116
2225254	Trifluralin	74.4	76.8	P/P	47 - 118
2225283	Aldrin	70.9	60.5	P/P	22 - 127
2225283	Dieldrin	91.3	81.6	P/P	52 - 123
2225283	Kepone	70.8	78.1	P/P	18 - 138

Reference Method: EPA 8270E
Batch ID: P393800

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2225498	Acetochlor	81.3	93.2	P/P	66 - 122

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P393800

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2225498	Alachlor	81.5	94.0	P/P	65 - 122
2225498	Ametryn	131	152	P/P	45 - 173
2225498	Atrazine	82.4	94.6	P/P	70 - 134
2225498	Atrazine Desethyl	93.7	104	P/P	25 - 150
2225498	Azinphos Methyl	94.9	110	P/P	44 - 174
2225498	Azoxystrobin	108	104	P/P	10 - 268
2225498	Bromacil	83.0	91.4	P/P	31 - 145
2225498	Butylate	46.7	47.9	P/P	15 - 97.0
2225498	Caffeine	194	174	F/F	70 - 130
2225498	Carbophenothion	56.1	58.5	P/P	42 - 129
2225498	Carfentrazone Ethyl	78.6	85.2	P/P	62 - 145
2225498	Chlorpyrifos Ethyl	49.4	56.6	F/F	60 - 124
2225498	Chlorpyrifos Methyl	70.4	82.5	P/P	66 - 119
2225498	Cyanazine	86.2	99.1	P/P	17 - 225
2225498	Demeton	73.4	80.8	P/P	36 - 142
2225498	Diazinon	92.3	105	P/P	70 - 128
2225498	Difenoconazole	107	120	P/P	33 - 222
2225498	Dimethenamid	78.6	89.9	P/P	54 - 125
2225498	Disulfoton	122	121	P/P	49 - 133
2225498	Dithiopyr	49.0	48.4	F/F	55 - 123
2225498	EPTC	44.9	48.7	P/P	19 - 91.0
2225498	Ethion	37.8	40.3	P/P	13 - 143
2225498	Ethoprop	84.6	96.9	P/P	49 - 144
2225498	Fenamiphos	60.2	60.8	P/P	32 - 136
2225498	Fenbuconazole	80.3	89.5	P/P	73 - 148
2225498	Fipronil Desulfinyl	80.7	90.8	P/P	49 - 127
2225498	Fipronil Sulfide	61.8	70.8	P/P	44 - 127
2225498	Fluazifop-P-butyl	72.9	82.4	P/P	67 - 129
2225498	Fludioxonil	76.9	85.3	P/P	61 - 126
2225498	Flumioxazin	161	177	P/P	38 - 279
2225498	Flutolanil	73.6	84.2	P/P	55 - 136
2225498	Fluxapyroxad	53.7	55.8	P/P	33 - 140
2225498	Fonofos	82.1	98.6	P/P	58 - 125
2225498	Hexazinone	80.2	91.3	P/P	57 - 148
2225498	Imazalil	83.4	76.5	P/P	10 - 221
2225498	Iprodione	66.6	70.8	P/P	32 - 140
2225498	Malathion	72.2	78.1	P/P	52 - 138
2225498	Metalaxyl	77.9	87.6	P/P	46 - 134
2225498	Metolachlor	73.2	83.5	P/P	58 - 122
2225498	Metribuzin	91.3	110	P/P	16 - 272
2225498	Mevinphos	85.9	99.7	P/P	45 - 140
2225498	Molinate	55.6	60.8	P/P	41 - 103
2225498	Myclobutanil	78.4	84.5	P/P	60 - 134
2225498	Naled	55.4	59.3	P/P	20 - 113
2225498	Norflurazon	65.6	72.9	P/P	51 - 123
2225498	Oxadiazon	59.0	61.0	P/P	44 - 125
2225498	Oxyfluorfen	83.3	91.9	P/P	66 - 176
2225498	Parathion Ethyl	71.5	81.1	P/P	57 - 132
2225498	Parathion Methyl	103	121	P/P	59 - 156
2225498	Pendimethalin	74.6	82.2	P/P	59 - 129
2225498	Phorate	65.7	82.0	P/P	47 - 136
2225498	Prodiamine	54.9	60.8	P/P	10 - 159

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P393800

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2225498	Prometon	96.0	115	P/P	59 - 127
2225498	Prometryn	75.7	84.0	P/P	59 - 129
2225498	Pronamide	83.0	93.4	P/P	65 - 145
2225498	Propiconazole	80.1	81.9	P/P	28 - 165
2225498	Pyriproxyfen	63.2	65.1	P/P	21 - 180
2225498	Simazine	81.6	89.8	P/P	63 - 147
2225498	Sulfentrazone	61.4	60.5	P/P	32 - 136
2225498	Tebuconazole	45.5	48.0	P/P	10 - 117
2225498	Terbufos	78.3	88.5	P/P	61 - 131
2225498	Terbuthylazine	79.2	92.4	P/P	62 - 126

Reference Method: EPA 8270E
Batch ID: P394411

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2225241	Caffeine	76.8	78.6	P/P	70 - 130

Reference Method: EPA 8276
Batch ID: P393752

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2225283	Chlordane	142	114	F/P	47 - 128
2225283	Toxaphene	161	147	P/P	11 - 163

Reference Method: EPA 8321B
Batch ID: P393743

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2224945	Acesulfame K	5.72	5.08	F/F	40 - 150
2224945	AMPA	12.2	11.8	F/F	40 - 150
2224945	Endothall	139	139	P/P	40 - 150
2224945	Glufosinate	9.96	9.16	F/F	40 - 150
2224945	Glyphosate	493	517	F/F	40 - 140
2224945	Sucralose	81.2	92.5	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P393796

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2225022	2,4-D	91.0	95.1	P/P	30 - 160
2225022	Acetaminophen	125	120	P/P	30 - 160
2225022	Acetamiprid	75.4	76.8	P/P	30 - 160
2225022	Afidopyropen	71.0	60.9	P/P	30 - 160
2225022	Bentazon	26.0	41.6	F/P	30 - 160
2225022	Benzovindiflupyr	77.4	76.3	P/P	30 - 160
2225022	Carbamazepine	72.6	75.9	P/P	30 - 160
2225022	Clothianidin	87.9	108	P/P	30 - 160
2225022	Dinotefuran	106	108	P/P	30 - 160
2225022	Diuron	52.7	52.0	P/P	30 - 160
2225022	Fenuron	60.2	67.6	P/P	30 - 160
2225022	Fluridone	78.7	75.8	P/P	30 - 160
2225022	Hydrocodone	87.4	92.7	P/P	30 - 160

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P393796

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2225022	Ibuprofen	77.7	85.9	P/P	30 - 160
2225022	Imazapyr	70.9	84.8	P/P	30 - 160
2225022	Imidacloprid	133	137	P/P	30 - 160
2225022	Linuron	68.8	66.3	P/P	30 - 160
2225022	Mandestrobin	82.5	79.0	P/P	30 - 160
2225022	MCPP	88.4	87.2	P/P	30 - 160
2225022	Naproxen	59.8	64.9	P/P	30 - 160
2225022	Primidone	79.9	101	P/P	30 - 160
2225022	Pyraclostrobin	79.7	81.6	P/P	30 - 160
2225022	Thiamethoxam	130	142	P/P	30 - 160
2225022	Tolfenpyrad	53.3	64.2	P/P	30 - 160
2225022	Triclopyr	92.0	85.6	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P393832

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2224881	3-Hydroxycarbofuran	47.0	84.8	P/P	30 - 160
2224881	Aldicarb	65.9	82.9	P/P	30 - 160
2224881	Aldicarb Sulfone	98.5	95.4	P/P	30 - 160
2224881	Aldicarb Sulfoxide	39.8	40.4	P/P	30 - 160
2224881	Carbaryl	36.6	36.7	P/P	30 - 160
2224881	Carbofuran	36.8	39.2	P/P	30 - 160
2224881	Methiocarb	47.3	52.7	P/P	30 - 160
2224881	Methomyl	55.0	75.0	P/P	30 - 160
2224881	Oxamyl	72.0	83.9	P/P	30 - 160
2224881	Propoxur	41.2	38.1	P/P	30 - 160

Reference Method: SM 4500 F-C-2011
Batch ID: P393804

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2225166	Fluoride	96.7	96.7	P/P	94 - 107

Reference Method: SM 5310 B-2011
Batch ID: P394373

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2225271	Organic Carbon	105		P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P393728

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2225221	Turbidity	2.64	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P394003

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2225313	Chloride	0.0594	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P394006

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2225313	Sulfate	1.80	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P394187

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2225169	Ammonia-N	0.858	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P393952

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2225273	Kjeldahl Nitrogen	2.69	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P393758

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2225145	NO2NO3-N	0.416	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P393759

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2225225	NO2NO3-N	1.45	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P393888

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2224756	NO2NO3-N	0.198	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P393873

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2225222	Total-P	0.265	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P393731

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2225172	O-Phosphate-P	0.935	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P393752

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2225254	Alpha-BHC	13.2	Spike	P	0 - 30
2225254	Alpha-Chlordane	3.61	Spike	P	0 - 30
2225254	Beta-BHC	6.16	Spike	P	0 - 30
2225254	Beta-Cyfluthrin	24.0	Spike	P	0 - 30
2225254	Bifenthrin	8.86	Spike	P	0 - 30
2225254	Chlorothalonil	16.2	Spike	P	0 - 30
2225254	Cis-Nonachlor	7.24	Spike	P	0 - 30
2225254	Cypermethrin	24.8	Spike	P	0 - 30
2225254	Dacthal	0.281	Spike	P	0 - 30
2225254	DDD-p,p'	4.83	Spike	P	0 - 30
2225254	DDE-p,p'	6.89	Spike	P	0 - 30
2225254	DDT-p,p'	5.25	Spike	P	0 - 30
2225254	Delta-BHC	18.6	Spike	P	0 - 30
2225254	Deltamethrin	19.2	Spike	P	0 - 30
2225254	Dichlobenil	9.39	Spike	P	0 - 30
2225254	Dicofol	1.25	Spike	P	0 - 30
2225254	Endosulfan I	3.10	Spike	P	0 - 30
2225254	Endosulfan II	10.6	Spike	P	0 - 30
2225254	Endosulfan Sulfate	13.0	Spike	P	0 - 30
2225254	Endrin	1.91	Spike	P	0 - 30
2225254	Endrin Aldehyde	9.16	Spike	P	0 - 30
2225254	Endrin Ketone	2.80	Spike	P	0 - 30
2225254	Esfenvalerate	20.4	Spike	P	0 - 30
2225254	Ethalfluralin	2.24	Spike	P	0 - 30
2225254	Fenpropathrin	21.4	Spike	P	0 - 30
2225254	Gamma-BHC	4.36	Spike	P	0 - 30
2225254	Gamma-Chlordane	5.11	Spike	P	0 - 30
2225254	Heptachlor	8.45	Spike	P	0 - 30
2225254	Heptachlor Epoxide	4.99	Spike	P	0 - 30
2225254	Hexachlorobenzene	9.16	Spike	P	0 - 30
2225254	Lambda-Cyhalothrin	22.2	Spike	P	0 - 30
2225254	Methoxychlor	6.21	Spike	P	0 - 30
2225254	MGK-264	21.6	Spike	P	0 - 30
2225254	Mirex	8.39	Spike	P	0 - 30
2225254	Permethrin	14.2	Spike	P	0 - 30
2225254	Phenothrin	29.7	Spike	P	0 - 30
2225254	Piperonyl Butoxide	14.2	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P393752

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2225254	Prallethrin	23.8	Spike	P	0 - 30
2225254	Tau-Fluvalinate	17.5	Spike	P	0 - 30
2225254	Tetramethrin	12.1	Spike	P	0 - 30
2225254	Trans-Nonachlor	5.94	Spike	P	0 - 30
2225254	Triclosan Methyl	3.86	Spike	P	0 - 30
2225254	Trifluralin	3.19	Spike	P	0 - 30
2225283	Aldrin	15.8	Spike	P	0 - 30
2225283	Dieldrin	11.2	Spike	P	0 - 30
2225283	Kepone	9.80	Spike	P	0 - 30
LFB	Aldrin	1.08	LCS	P	0 - 30
LFB	Alpha-BHC	2.07	LCS	P	0 - 30
LFB	Alpha-Chlordane	1.39	LCS	P	0 - 30
LFB	Beta-BHC	5.92	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	24.3	LCS	P	0 - 30
LFB	Bifenthrin	12.8	LCS	P	0 - 30
LFB	Chlorothalonil	42.4	LCS	F	0 - 30
LFB	Cis-Nonachlor	1.46	LCS	P	0 - 30
LFB	Cypermethrin	12.2	LCS	P	0 - 30
LFB	Dacthal	1.05	LCS	P	0 - 30
LFB	DDD-p,p'	2.79	LCS	P	0 - 30
LFB	DDE-p,p'	0.973	LCS	P	0 - 30
LFB	DDT-p,p'	4.33	LCS	P	0 - 30
LFB	Delta-BHC	13.1	LCS	P	0 - 30
LFB	Deltamethrin	10.9	LCS	P	0 - 30
LFB	Dichlobenil	15.3	LCS	P	0 - 30
LFB	Dicofol	0.828	LCS	P	0 - 30
LFB	Dieldrin	1.41	LCS	P	0 - 30
LFB	Endosulfan I	10.0	LCS	P	0 - 30
LFB	Endosulfan II	19.8	LCS	P	0 - 30
LFB	Endosulfan Sulfate	8.26	LCS	P	0 - 30
LFB	Endrin	4.82	LCS	P	0 - 30
LFB	Endrin Aldehyde	3.52	LCS	P	0 - 30
LFB	Endrin Ketone	2.18	LCS	P	0 - 30
LFB	Esfenvalerate	17.3	LCS	P	0 - 30
LFB	Ethalfluralin	1.10	LCS	P	0 - 30
LFB	Fenpropathrin	18.3	LCS	P	0 - 30
LFB	Gamma-BHC	1.34	LCS	P	0 - 30
LFB	Gamma-Chlordane	0.652	LCS	P	0 - 30
LFB	Heptachlor	2.63	LCS	P	0 - 30
LFB	Heptachlor Epoxide	1.10	LCS	P	0 - 30
LFB	Hexachlorobenzene	1.89	LCS	P	0 - 30
LFB	Kepone	5.89	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	29.9	LCS	P	0 - 30
LFB	Methoxychlor	2.51	LCS	P	0 - 30
LFB	MGK-264	6.53	LCS	P	0 - 30
LFB	Mirex	3.77	LCS	P	0 - 30
LFB	Permethrin	10.8	LCS	P	0 - 30
LFB	Phenothrin	17.2	LCS	P	0 - 30
LFB	Piperonyl Butoxide	2.67	LCS	P	0 - 30
LFB	Prallethrin	3.87	LCS	P	0 - 30
LFB	Tau-Fluvalinate	22.1	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P393752

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Tetramethrin	0.631	LCS	P	0 - 30
LFB	Trans-Nonachlor	0.0963	LCS	P	0 - 30
LFB	Triclosan Methyl	2.60	LCS	P	0 - 30
LFB	Trifluralin	1.61	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P393800

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2225498	Acetochlor	13.6	Spike	P	0 - 30
2225498	Alachlor	14.2	Spike	P	0 - 30
2225498	Ametryn	14.5	Spike	P	0 - 30
2225498	Atrazine	11.6	Spike	P	0 - 30
2225498	Atrazine Desethyl	10.9	Spike	P	0 - 30
2225498	Azinphos Methyl	14.8	Spike	P	0 - 30
2225498	Azoxystrobin	3.81	Spike	P	0 - 30
2225498	Bromacil	9.65	Spike	P	0 - 30
2225498	Butylate	2.61	Spike	P	0 - 30
2225498	Caffeine	11.2	Spike	P	0 - 30
2225498	Carbophenothion	4.21	Spike	P	0 - 30
2225498	Carfentrazone Ethyl	8.12	Spike	P	0 - 30
2225498	Chlorpyrifos Ethyl	13.7	Spike	P	0 - 30
2225498	Chlorpyrifos Methyl	15.8	Spike	P	0 - 30
2225498	Cyanazine	13.9	Spike	P	0 - 30
2225498	Demeton	9.67	Spike	P	0 - 30
2225498	Diazinon	12.9	Spike	P	0 - 30
2225498	Difenoconazole	11.2	Spike	P	0 - 30
2225498	Dimethenamid	13.4	Spike	P	0 - 30
2225498	Disulfoton	0.652	Spike	P	0 - 30
2225498	Dithiopyr	1.17	Spike	P	0 - 30
2225498	EPTC	8.10	Spike	P	0 - 30
2225498	Ethion	6.29	Spike	P	0 - 30
2225498	Ethoprop	13.6	Spike	P	0 - 30
2225498	Fenamiphos	0.983	Spike	P	0 - 30
2225498	Fenbuconazole	10.8	Spike	P	0 - 30
2225498	Fipronil	15.7	Spike	P	0 - 30
2225498	Fipronil Desulfinyl	11.4	Spike	P	0 - 30
2225498	Fipronil Sulfide	7.04	Spike	P	0 - 30
2225498	Fipronil Sulfone	3.39	Spike	P	0 - 30
2225498	Fluazifop-P-butyl	12.2	Spike	P	0 - 30
2225498	Fludioxonil	10.5	Spike	P	0 - 30
2225498	Flumioxazin	9.62	Spike	P	0 - 30
2225498	Flutolanil	13.4	Spike	P	0 - 30
2225498	Fluxapyroxad	3.92	Spike	P	0 - 30
2225498	Fonofos	18.2	Spike	P	0 - 30
2225498	Hexazinone	11.5	Spike	P	0 - 30
2225498	Imazalil	8.73	Spike	P	0 - 30
2225498	Iprodione	6.06	Spike	P	0 - 30
2225498	Malathion	7.78	Spike	P	0 - 30
2225498	Metalaxyl	11.7	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P393800

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2225498	Metolachlor	10.8	Spike	P	0 - 30
2225498	Metribuzin	18.3	Spike	P	0 - 30
2225498	Mevinphos	14.8	Spike	P	0 - 30
2225498	Molinate	8.85	Spike	P	0 - 30
2225498	Myclobutanil	7.49	Spike	P	0 - 30
2225498	Naled	6.73	Spike	P	0 - 30
2225498	Norflurazon	9.67	Spike	P	0 - 30
2225498	Oxadiazon	3.41	Spike	P	0 - 30
2225498	Oxyfluorfen	9.88	Spike	P	0 - 30
2225498	Parathion Ethyl	12.6	Spike	P	0 - 30
2225498	Parathion Methyl	15.8	Spike	P	0 - 30
2225498	Pendimethalin	9.68	Spike	P	0 - 30
2225498	Phorate	22.0	Spike	P	0 - 30
2225498	Prodiamine	10.2	Spike	P	0 - 30
2225498	Prometon	17.7	Spike	P	0 - 30
2225498	Prometryn	10.4	Spike	P	0 - 30
2225498	Pronamide	11.8	Spike	P	0 - 30
2225498	Propiconazole	2.25	Spike	P	0 - 30
2225498	Pyriproxyfen	2.91	Spike	P	0 - 30
2225498	Simazine	9.62	Spike	P	0 - 30
2225498	Sulfentrazone	1.29	Spike	P	0 - 30
2225498	Tebuconazole	4.56	Spike	P	0 - 30
2225498	Terbufos	12.3	Spike	P	0 - 30
2225498	Terbuthylazine	15.4	Spike	P	0 - 30
LFB	Acetochlor	4.51	LCS	P	0 - 30
LFB	Alachlor	2.46	LCS	P	0 - 30
LFB	Ametryn	2.39	LCS	P	0 - 30
LFB	Atrazine	3.05	LCS	P	0 - 30
LFB	Atrazine Desethyl	1.50	LCS	P	0 - 30
LFB	Azinphos Methyl	11.2	LCS	P	0 - 30
LFB	Azoxystrobin	1.87	LCS	P	0 - 30
LFB	Bromacil	5.25	LCS	P	0 - 30
LFB	Butylate	4.12	LCS	P	0 - 30
LFB	Caffeine	13.7	LCS	P	0 - 30
LFB	Carbophenothion	4.53	LCS	P	0 - 30
LFB	Carfentrazone Ethyl	5.37	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	1.11	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	5.03	LCS	P	0 - 30
LFB	Cyanazine	1.41	LCS	P	0 - 30
LFB	Demeton	3.39	LCS	P	0 - 30
LFB	Diazinon	3.92	LCS	P	0 - 30
LFB	Difenoconazole	14.9	LCS	P	0 - 30
LFB	Dimethenamid	1.64	LCS	P	0 - 30
LFB	Disulfoton	9.56	LCS	P	0 - 30
LFB	Dithiopyr	5.28	LCS	P	0 - 30
LFB	EPTC	6.60	LCS	P	0 - 30
LFB	Ethion	8.01	LCS	P	0 - 30
LFB	Ethoprop	0.212	LCS	P	0 - 30
LFB	Fenamiphos	14.9	LCS	P	0 - 30
LFB	Fenbuconazole	5.80	LCS	P	0 - 30
LFB	Fipronil	4.85	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P393800

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Fipronil Desulfinyl	1.49	LCS	P	0 - 30
LFB	Fipronil Sulfide	9.36	LCS	P	0 - 30
LFB	Fipronil Sulfone	0.517	LCS	P	0 - 30
LFB	Fluazifop-P-butyl	6.30	LCS	P	0 - 30
LFB	Fludioxonil	0.391	LCS	P	0 - 30
LFB	Flumioxazin	11.0	LCS	P	0 - 30
LFB	Flutolanil	9.32	LCS	P	0 - 30
LFB	Fluxapyroxad	4.52	LCS	P	0 - 30
LFB	Fonofos	3.62	LCS	P	0 - 30
LFB	Hexazinone	2.16	LCS	P	0 - 30
LFB	Imazalil	1.20	LCS	P	0 - 30
LFB	Iprodione	9.72	LCS	P	0 - 30
LFB	Malathion	3.03	LCS	P	0 - 30
LFB	Metalaxyl	1.55	LCS	P	0 - 30
LFB	Metolachlor	3.06	LCS	P	0 - 30
LFB	Metribuzin	0.464	LCS	P	0 - 30
LFB	Mevinphos	0.854	LCS	P	0 - 30
LFB	Molinate	3.40	LCS	P	0 - 30
LFB	Myclobutanil	1.09	LCS	P	0 - 30
LFB	Naled	1.98	LCS	P	0 - 30
LFB	Norflurazon	6.37	LCS	P	0 - 30
LFB	Oxadiazon	6.67	LCS	P	0 - 30
LFB	Oxyfluorfen	2.20	LCS	P	0 - 30
LFB	Parathion Ethyl	2.84	LCS	P	0 - 30
LFB	Parathion Methyl	7.86	LCS	P	0 - 30
LFB	Pendimethalin	1.36	LCS	P	0 - 30
LFB	Phorate	1.06	LCS	P	0 - 30
LFB	Prodiamine	9.74	LCS	P	0 - 30
LFB	Prometon	3.16	LCS	P	0 - 30
LFB	Prometryn	1.32	LCS	P	0 - 30
LFB	Pronamide	0.658	LCS	P	0 - 30
LFB	Propiconazole	6.54	LCS	P	0 - 30
LFB	Pyriproxyfen	6.12	LCS	P	0 - 30
LFB	Simazine	3.45	LCS	P	0 - 30
LFB	Sulfentrazone	2.01	LCS	P	0 - 30
LFB	Tebuconazole	12.4	LCS	P	0 - 30
LFB	Terbufos	0.100	LCS	P	0 - 30
LFB	Terbuthylazine	2.26	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P394411

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2225241	Caffeine	1.81	Spike	P	0 - 30
LFB	Caffeine	1.13	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8276
Batch ID: P393752

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2225283	Chlordane	21.5	Spike	P	0 - 30
2225283	Toxaphene	8.76	Spike	P	0 - 30
LFB	Chlordane	6.84	LCS	P	0 - 30
LFB	Toxaphene	6.76	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P393743

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2224945	Acesulfame K	11.9	Spike	P	0 - 30
2224945	AMPA	3.66	Spike	P	0 - 30
2224945	Endothall	0.576	Spike	P	0 - 30
2224945	Glufosinate	8.37	Spike	P	0 - 30
2224945	Glyphosate	4.72	Spike	P	0 - 30
2224945	Sucralose	11.3	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P393796

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2225022	2,4-D	4.44	Spike	P	0 - 30
2225022	Acetaminophen	3.97	Spike	P	0 - 30
2225022	Acetamiprid	1.86	Spike	P	0 - 30
2225022	Afidopyropen	15.2	Spike	P	0 - 30
2225022	Bentazon	14.9	Spike	P	0 - 30
2225022	Benzovindiflupyr	1.45	Spike	P	0 - 30
2225022	Carbamazepine	4.43	Spike	P	0 - 30
2225022	Clothianidin	19.6	Spike	P	0 - 30
2225022	Dinotefuran	2.37	Spike	P	0 - 30
2225022	Diuron	1.32	Spike	P	0 - 30
2225022	Fenuron	11.7	Spike	P	0 - 30
2225022	Fluridone	2.76	Spike	P	0 - 30
2225022	Hydrocodone	5.85	Spike	P	0 - 30
2225022	Ibuprofen	10.1	Spike	P	0 - 30
2225022	Imazapyr	13.6	Spike	P	0 - 30
2225022	Imidacloprid	2.42	Spike	P	0 - 30
2225022	Linuron	3.67	Spike	P	0 - 30
2225022	Mandestrobin	4.27	Spike	P	0 - 30
2225022	MCPP	1.44	Spike	P	0 - 30
2225022	Naproxen	8.15	Spike	P	0 - 30
2225022	Primidone	23.0	Spike	P	0 - 30
2225022	Pyraclostrobin	2.39	Spike	P	0 - 30
2225022	Thiamethoxam	8.27	Spike	P	0 - 30
2225022	Tolfenpyrad	18.4	Spike	P	0 - 30
2225022	Triclopyr	7.20	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P393832

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2224881	3-Hydroxycarbofuran	57.3	Spike	F	0 - 30
2224881	Aldicarb	22.8	Spike	P	0 - 30
2224881	Aldicarb Sulfone	3.23	Spike	P	0 - 30
2224881	Aldicarb Sulfoxide	1.37	Spike	P	0 - 30
2224881	Carbaryl	0.367	Spike	P	0 - 30
2224881	Carbofuran	6.39	Spike	P	0 - 30
2224881	Methiocarb	10.8	Spike	P	0 - 30
2224881	Methomyl	30.8	Spike	F	0 - 30
2224881	Oxamyl	15.3	Spike	P	0 - 30
2224881	Propoxur	7.73	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P393734

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2225165	Color (true)	0.625	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P393801

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2225166	Total Alkalinity	1.22	Sample	P	0 - 8.1

Reference Method: SM 2540 C-2011
Batch ID: P394108

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2224788	TDS	3.21	Sample	P	0 - 10

Reference Method: SM 2540 C-2011
Batch ID: P394109

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2224986	TDS	2.35	Sample	P	0 - 10

Reference Method: SM 2540 C-2011
Batch ID: P394110

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2224713	TDS	7.32	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P393804

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits

Quality Assurance Report
Precision

Reference Method: SM 4500 F-C-2011
Batch ID: P393804

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2225166	Fluoride	0.0	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011
Batch ID: P394373

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2225271	Organic Carbon	0.187	Spike	P	0 - 20

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

Quality Assurance Report
Surrogates

Lab Sample ID: 2225235
Field Sample ID: G3SE0025

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	99.3	P	30 - 160
EPA 8321B	Acetaminophen-d4	119	P	30 - 160
EPA 8321B	Carbamazepine-d10	57.0	P	30 - 160
EPA 8321B	Diuron-d6	38.2	P	30 - 160
EPA 8321B	Endothall-d6	137	P	30 - 160
EPA 8321B	Endothall-d6	137	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	117	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	117	P	30 - 160
EPA 8321B	Ibuprofen-d3	73.2	P	30 - 160
EPA 8321B	Primidone-d5	75.2	P	30 - 160
EPA 8321B	Sucralose-d6	94.2	P	30 - 160
EPA 8321B	Sucralose-d6	94.2	P	30 - 160

Lab Sample ID: 2225236
Field Sample ID: G2SE0002

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	40.3	P	30 - 160

Lab Sample ID: 2225237
Field Sample ID: G2SE0002

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	107	P	30 - 160
EPA 8321B	Acetaminophen-d4	116	P	30 - 160
EPA 8321B	Carbamazepine-d10	63.1	P	30 - 160
EPA 8321B	Diuron-d6	48.3	P	30 - 160
EPA 8321B	Endothall-d6	147	P	30 - 160
EPA 8321B	Endothall-d6	147	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	98.1	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	98.1	P	30 - 160
EPA 8321B	Ibuprofen-d3	78.6	P	30 - 160
EPA 8321B	Primidone-d5	101	P	30 - 160
EPA 8321B	Sucralose-d6	92.3	P	30 - 160
EPA 8321B	Sucralose-d6	92.3	P	30 - 160

Lab Sample ID: 2225238
Field Sample ID: FB_021121

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	61.0	P	30 - 160

Lab Sample ID: 2225239
Field Sample ID: FB_021121

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	139	P	30 - 160
EPA 8321B	Acetaminophen-d4	97.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	92.1	P	30 - 160
EPA 8321B	Diuron-d6	79.2	P	30 - 160
EPA 8321B	Endothall-d6	127	P	30 - 160
EPA 8321B	Endothall-d6	127	P	30 - 160

Quality Assurance Report
Surrogates

Lab Sample ID: 2225239
Field Sample ID: FB_021121

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Glyphosate 13C 15N	120	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	120	P	30 - 160
EPA 8321B	Ibuprofen-d3	98.4	P	30 - 160
EPA 8321B	Primidone-d5	111	P	30 - 160
EPA 8321B	Sucralose-d6	92.2	P	30 - 160
EPA 8321B	Sucralose-d6	92.2	P	30 - 160

Lab Sample ID: 2225240
Field Sample ID: G2SE0002

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	86.3	P	40 - 123
EPA 8270E	Decachlorobiphenyl	77.2	P	47 - 111
EPA 8270E	Tetrachloro-m-xylene	43.1	P	31 - 100
EPA 8270E	Tetrachloro-m-xylene	48.7	P	33 - 102
EPA 8276	Decachlorobiphenyl	46.5	P	29 - 92.0
EPA 8276	PCNB	88.4	P	43 - 134

Lab Sample ID: 2225241
Field Sample ID: G2SE0002

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	57.7	P	20 - 200
EPA 8270E	Simazine-d10	107	P	73 - 135
EPA 8270E	Terbufos-d10	109	P	58 - 130

Lab Sample ID: 2225242
Field Sample ID: FB_021121

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	51.8	P	40 - 123
EPA 8270E	Decachlorobiphenyl	65.0	P	47 - 111
EPA 8270E	Tetrachloro-m-xylene	45.4	P	31 - 100
EPA 8270E	Tetrachloro-m-xylene	49.3	P	33 - 102
EPA 8276	Decachlorobiphenyl	46.6	P	29 - 92.0
EPA 8276	PCNB	77.6	P	43 - 134

Lab Sample ID: 2225243
Field Sample ID: FB_021121

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	72.8	P	20 - 200
EPA 8270E	Simazine-d10	107	P	73 - 135
EPA 8270E	Terbufos-d10	107	P	58 - 130

Quality Assurance Report
Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A103563
Included Lab Sample IDs: 2225221, 2225224, 2225227

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	101	101	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A103565
Included Lab Sample IDs: 2225223, 2225226, 2225229

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.8	99.6	P/P	90 - 110

Reference Method: SM 2120 B-2011
Run ID: A103566
Included Lab Sample IDs: 2225221, 2225224, 2225227

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	102	100	P/P	90 - 115
Color (true)	99.4	99.6	P/P	90 - 115

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A103580
Included Lab Sample IDs: 2225222, 2225225

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	106	104	P/P	90 - 110
NO2NO3-N	106	106	P/P	90 - 110

Reference Method: SM 2320 B-2011
Run ID: A103596
Included Lab Sample IDs: 2225221, 2225224, 2225227

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	93.6	95.8	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Run ID: A103596
Included Lab Sample IDs: 2225221, 2225224, 2225227

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

Reference Method: EPA 8321B
Run ID: A103625
Included Lab Sample IDs: 2225235, 2225237, 2225239

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	74.4	83.3	P/P	60 - 160
AMPA	103	120	P/P	40 - 160
Endothall	147	143	P/P	60 - 160
Glufosinate	117	118	P/P	60 - 200
Glyphosate	113	110	P/P	60 - 160

Quality Assurance Report
Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A103628
Included Lab Sample IDs: 2225221, 2225224, 2225227

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.3	99.6	P/P	90 - 110
Sulfate	98.8	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A103630
Included Lab Sample IDs: 2225228

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A103634
Included Lab Sample IDs: 2225228

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.2	100	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A103647
Included Lab Sample IDs: 2225235, 2225237, 2225239

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	101	93.1	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A103681
Included Lab Sample IDs: 2225235, 2225237, 2225239

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	119	107	P/P	50 - 150
3-Hydroxycarbofuran	113	86.1	P/P	60 - 150
Acetaminophen	90.0	103	P/P	60 - 160
Acetamiprid	104	112	P/P	50 - 150
Afidopyropen	92.6	93.5	P/P	50 - 150
Aldicarb	131	102	P/P	60 - 150
Aldicarb Sulfone	104	99.7	P/P	50 - 150
Aldicarb Sulfoxide	104	99.1	P/P	50 - 150
Bentazon	137	125	P/P	50 - 160
Benzovindiflupyr	95.4	96.6	P/P	50 - 160
Carbamazepine	99.6	106	P/P	60 - 150
Carbaryl	101	109	P/P	60 - 150
Carbofuran	106	102	P/P	50 - 150
Clothianidin	97.1	102	P/P	60 - 150
Dinotefuran	100	108	P/P	50 - 150
Diuron	106	125	P/P	60 - 160
Fenuron	91.6	99.4	P/P	60 - 150
Fluridone	113	117	P/P	60 - 160
Hydrocodone	96.9	98.5	P/P	60 - 150
Ibuprofen	134	120	P/P	50 - 160
Imazapyr	123	128	P/P	50 - 160
Imidacloprid	88.6	92.8	P/P	60 - 150

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A103681
Included Lab Sample IDs: 2225235, 2225237, 2225239

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Linuron	96.3	107	P/P	60 - 150
Mandestrobin	95.6	101	P/P	50 - 150
MCPP	112	120	P/P	50 - 150
Methiocarb	114	109	P/P	50 - 150
Methomyl	112	108	P/P	50 - 150
Naproxen	133	133	P/P	50 - 160
Oxamyl	110	108	P/P	50 - 150
Primidone	91.1	100	P/P	60 - 150
Propoxur	97.8	104	P/P	50 - 150
Pyraclostrobin	107	110	P/P	60 - 150
Thiamethoxam	111	110	P/P	50 - 150
Tolfenpyrad	99.2	86.3	P/P	60 - 150
Triclopyr	104	120	P/P	50 - 150

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A103688
Included Lab Sample IDs: 2225222, 2225225

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.6	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A103694
Included Lab Sample IDs: 2225222, 2225225, 2225228

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	99.8	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A103699
Included Lab Sample IDs: 2225240, 2225242

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Alpha-BHC	100		P	80 - 120
Alpha-Chlordane	101		P	80 - 120
Beta-BHC	99.9		P	80 - 120
Beta-Cyfluthrin	86.2		P	80 - 120
Bifenthrin	97.7		P	80 - 120
Chlorothalonil	108		P	80 - 120
Cis-Nonachlor	100		P	80 - 120
Cypermethrin	85.1		P	80 - 120
Dacthal	101		P	80 - 120
DDD-p,p'	104		P	80 - 120
DDE-p,p'	103		P	80 - 120
DDT-p,p'	107		P	80 - 120
Delta-BHC	103		P	80 - 120
Deltamethrin	94.4		P	80 - 120
Dichlobenil	96.3		P	80 - 120
Dicofol	95.6		P	80 - 120
Endosulfan I	98.8		P	80 - 120
Endosulfan II	87.1		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A103699
Included Lab Sample IDs: 2225240, 2225242

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Endosulfan Sulfate	80.5		P	80 - 120
Endrin	98.3		P	80 - 120
Endrin Aldehyde	95.1		P	80 - 120
Endrin Ketone	95.7		P	80 - 120
Esfenvalerate	91.9		P	80 - 120
Ethalfluralin	102		P	80 - 120
Fenpropathrin	88.8		P	80 - 120
Gamma-BHC	104		P	80 - 120
Gamma-Chlordane	99.8		P	80 - 120
Heptachlor	93.6		P	80 - 120
Heptachlor Epoxide	98.3		P	80 - 120
Hexachlorobenzene	98.6		P	80 - 120
Lambda-Cyhalothrin	87.4		P	80 - 120
Methoxychlor	107		P	80 - 120
MGK-264	100		P	80 - 120
Mirex	91.5		P	80 - 120
Permethrin	88.2		P	80 - 120
Phenothrin	83.4		P	80 - 120
Piperonyl Butoxide	96.2		P	80 - 120
Prallethrin	93.6		P	80 - 120
Tau-Fluvalinate	93.3		P	80 - 120
Tetramethrin	117		P	80 - 120
Trans-Nonachlor	97.6		P	80 - 120
Triclosan Methyl	103		P	80 - 120
Trifluralin	97.3		P	80 - 120

Reference Method: EPA 8270E
Run ID: A103700
Included Lab Sample IDs: 2225240, 2225242

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	100		P	80 - 120
Dieldrin	98.2		P	80 - 120
Kepone	106		P	80 - 120

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A103751
Included Lab Sample IDs: 2225222, 2225225, 2225228

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.2	99.6	P/P	90 - 110

Reference Method: EPA 8276
Run ID: A103753
Included Lab Sample IDs: 2225240, 2225242

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	98.9		P	80 - 120
Toxaphene	90.1		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A103762
Included Lab Sample IDs: 2225241, 2225243

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	97.6		P	80 - 120
Alachlor	97.9		P	80 - 120
Ametryn	95.8		P	80 - 120
Atrazine	98.8		P	80 - 120
Atrazine Desethyl	88.3		P	80 - 120
Azinphos Methyl	86.0		P	80 - 120
Azoxystrobin	91.6		P	80 - 120
Bromacil	94.3		P	80 - 120
Butylate	101		P	80 - 120
Caffeine	94.0		P	70 - 120
Carbophenothion	108		P	80 - 120
Carfentrazone Ethyl	96.9		P	80 - 120
Chlorpyrifos Ethyl	97.8		P	80 - 120
Chlorpyrifos Methyl	95.7		P	80 - 120
Cyanazine	93.0		P	80 - 120
Demeton	101		P	80 - 120
Diazinon	95.3		P	80 - 120
Difenoconazole	102		P	80 - 120
Dimethenamid	96.1		P	80 - 120
Disulfoton	97.1		P	80 - 120
Dithiopyr	96.2		P	80 - 120
EPTC	98.4		P	80 - 120
Ethion	102		P	80 - 120
Ethoprop	100		P	80 - 120
Fenamiphos	98.3		P	80 - 120
Fenbuconazole	94.8		P	80 - 120
Fipronil	93.3		P	80 - 120
Fipronil Desulfinyl	92.0		P	80 - 120
Fipronil Sulfide	96.2		P	80 - 120
Fipronil Sulfone	103		P	80 - 120
Fluazifop-P-butyl	103		P	80 - 120
Fludioxonil	95.2		P	80 - 120
Flumioxazin	97.1		P	80 - 120
Flutolanil	96.4		P	80 - 120
Fluxapyroxad	101		P	80 - 120
Fonofos	99.3		P	80 - 120
Hexazinone	94.1		P	80 - 120
Imazalil	109		P	80 - 120
Iprodione	100		P	80 - 120
Malathion	95.8		P	80 - 120
Metalaxyl	94.6		P	80 - 120
Metolachlor	95.5		P	80 - 120
Metribuzin	103		P	80 - 120
Mevinphos	110		P	80 - 120
Molinate	100		P	80 - 120
Myclobutanil	93.8		P	80 - 120
Naled	97.2		P	80 - 120
Norflurazon	92.3		P	80 - 120
Oxadiazon	100		P	80 - 120
Oxyfluorfen	101		P	80 - 120
Parathion Ethyl	94.4		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A103762
Included Lab Sample IDs: 2225241, 2225243

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Parathion Methyl	103		P	80 - 120
Pendimethalin	102		P	80 - 120
Phorate	101		P	80 - 120
Prodiamine	111		P	80 - 120
Prometon	98.2		P	80 - 120
Prometryn	92.7		P	80 - 120
Pronamide	95.0		P	80 - 120
Propiconazole	98.1		P	80 - 120
Pyriproxyfen	92.9		P	80 - 120
Simazine	99.3		P	80 - 120
Sulfentrazone	102		P	80 - 120
Tebuconazole	97.8		P	80 - 120
Terbufos	101		P	80 - 120
Terbuthylazine	92.9		P	80 - 120

Reference Method: SM 5310 B-2011
Run ID: A103844
Included Lab Sample IDs: 2225222, 2225225, 2225228

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.3	98.3	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A103936
Included Lab Sample IDs: 2225243

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Caffeine	96.5		P	80 - 120

* Pass/Fail determinations are made for each bracketing calibration verification check.
Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.
Where they are different, both control limits are provided.

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 180.1 Rev. 2.0	Turbidity						2.64	
EPA 300.0 Rev. 2.1	Chloride	100		98.3	98.6		0.0594	
	Sulfate	100		98.2	100		1.80	
EPA 350.1 Rev. 2.0	Ammonia-N	102		96.4	97.4			0.858
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	98.9		101	105			2.69
EPA 353.2 Rev. 2.0	NO2NO3-N	104		99.9	100			0.416
	NO2NO3-N	106		100	102			1.45
	NO2NO3-N	102		99.0				0.198
EPA 365.1 Rev. 2.0	Total-P	103		106	106			0.265
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	102		95.8	96.7			0.935
EPA 8270E	Acetochlor	91.6	87.6	81.3	93.2	4.51		13.6
	Alachlor	86.5	84.4	81.5	94.0	2.46		14.2
	Aldrin	44.2	44.7	70.9	60.5	1.08		15.8
	Alpha-BHC	80.6	82.3	73.8	84.3	2.07		13.2
	Alpha-Chlordane	90.5	89.3	82.7	85.7	1.39		3.61
	Ametryn	90.8	88.7	131	152	2.39		14.5
	Atrazine	95.7	92.8	82.4	94.6	3.05		11.6
	Atrazine Desethyl	98.2	99.6	93.7	104	1.50		10.9
	Azinphos Methyl	119	106	94.9	110	11.2		14.8
	Azoxystrobin	226	230	108	104	1.87		3.81
	Beta-BHC	94.9	101	95.1	101	5.92		6.16
	Beta-Cyfluthrin	105	82.4	74.5	94.7	24.3		24.0
	Bifenthrin	82.4	72.5	81.0	88.5	12.8		8.86
	Bromacil	88.9	84.4	83.0	91.4	5.25		9.65
	Butylate	73.8	70.8	46.7	47.9	4.12		2.61
	Caffeine	77.7	89.2	194	174	13.7		11.2
	Caffeine	82.1	81.2	76.8	78.6	1.13		1.81
	Carbophenothion	80.6	77.0	56.1	58.5	4.53		4.21
	Carfentrazone Ethyl	87.5	82.9	78.6	85.2	5.37		8.12
	Chlorothalonil	96.3	62.6	95.8	81.4	42.4		16.2
	Chlorpyrifos Ethyl	75.2	74.4	49.4	56.6	1.11		13.7
	Chlorpyrifos Methyl	82.4	86.6	70.4	82.5	5.03		15.8
	Cis-Nonachlor	95.1	93.7	84.1	90.4	1.46		7.24
	Cyanazine	107	105	86.2	99.1	1.41		13.9
	Cypermethrin	75.5	66.8	61.6	79.1	12.2		24.8
	Dacthal	97.4	98.4	91.1	90.9	1.05		0.281
	DDD-p,p'	104	101	88.7	93.1	2.79		4.83
	DDE-p,p'	82.6	83.4	77.0	82.4	0.973		6.89
	DDT-p,p'	90.4	86.6	84.6	89.2	4.33		5.25
	Delta-BHC	116	102	110	133	13.1		18.6
	Deltamethrin	99.3	89.1	82.9	100	10.9		19.2
	Demeton	74.0	76.5	73.4	80.8	3.39		9.67
	Diazinon	93.0	89.4	92.3	105	3.92		12.9
	Dichlobenil	39.0	45.5	40.0	36.4	15.3		9.39
	Dicofol	117	116	97.9	96.7	0.828		1.25
	Dieldrin	89.2	88.0	91.3	81.6	1.41		11.2
	Difenoconazole	153	132	107	120	14.9		11.2
	Dimethenamid	87.1	88.5	78.6	89.9	1.64		13.4
	Disulfoton	75.4	83.0	122	121	9.56		0.652
	Dithiopyr	79.2	75.1	49.0	48.4	5.28		1.17
	Endosulfan I	93.9	85.0	84.8	87.5	10.0		3.10
	Endosulfan II	132	108	95.0	106	19.8		10.6
	Endosulfan Sulfate	89.7	82.6	71.2	81.0	8.26		13.0
	Endrin	86.4	90.7	96.6	98.5	4.82		1.91

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270E	Endrin Aldehyde	102	98.6	91.3	100	3.52		9.16
	Endrin Ketone	94.9	92.9	87.9	90.4	2.18		2.80
	EPTC	65.0	60.8	44.9	48.7	6.60		8.10
	Esfenvalerate	94.5	79.5	79.1	97.1	17.3		20.4
	Ethalfluralin	80.8	79.9	75.4	77.1	1.10		2.24
	Ethion	69.6	64.2	37.8	40.3	8.01		6.29
	Ethoprop	86.8	86.6	84.6	96.9	0.212		13.6
	Fenamiphos	81.0	69.8	60.2	60.8	14.9		0.983
	Fenbuconazole	100	94.5	80.3	89.5	5.80		10.8
	Fenpropathrin	117	97.2	95.9	119	18.3		21.4
	Fipronil	91.1	86.8			4.85		15.7
	Fipronil Desulfinyl	82.3	83.5	80.7	90.8	1.49		11.4
	Fipronil Sulfide	74.1	67.5	61.8	70.8	9.36		7.04
	Fipronil Sulfone	65.7	65.4			0.517		3.39
	Fluazifop-P-butyl	88.6	83.2	72.9	82.4	6.30		12.2
	Fludioxonil	80.2	80.6	76.9	85.3	0.391		10.5
	Flumioxazin	212	190	161	177	11.0		9.62
	Flutolanil	83.1	75.7	73.6	84.2	9.32		13.4
	Fluxapyroxad	73.6	70.3	53.7	55.8	4.52		3.92
	Fonofos	87.4	84.3	82.1	98.6	3.62		18.2
	Gamma-BHC	94.2	95.4	110	115	1.34		4.36
	Gamma-Chlordane	86.3	85.7	77.2	81.3	0.652		5.11
	Heptachlor	65.2	63.5	59.7	65.0	2.63		8.45
	Heptachlor Epoxide	90.7	89.8	82.1	87.1	1.10		4.99
	Hexachlorobenzene	62.8	64.0	60.1	65.8	1.89		9.16
	Hexazinone	82.9	81.1	80.2	91.3	2.16		11.5
	Imazalil	89.2	88.1	83.4	76.5	1.20		8.73
	Iprodione	87.2	79.1	66.6	70.8	9.72		6.06
	Kepone	110	117	70.8	78.1	5.89		9.80
	Lambda-Cyhalothrin	97.1	71.8	79.4	99.3	29.9		22.2
	Malathion	93.2	90.4	72.2	78.1	3.03		7.78
	Metalaxyl	80.3	79.0	77.9	87.6	1.55		11.7
	Methoxychlor	101	98.2	96.9	103	2.51		6.21
	Metolachlor	80.4	78.0	73.2	83.5	3.06		10.8
	Metribuzin	93.0	93.4	91.3	110	0.464		18.3
	Mevinphos	84.4	85.1	85.9	99.7	0.854		14.8
	MGK-264	62.7	66.9	54.3	67.5	6.53		21.6
	Mirex	62.3	60.0	64.6	70.3	3.77		8.39
	Molinate	71.6	69.3	55.6	60.8	3.40		8.85
	Myclobutanil	74.5	73.7	78.4	84.5	1.09		7.49
	Naled	53.3	52.3	55.4	59.3	1.98		6.73
	Norflurazon	79.4	74.5	65.6	72.9	6.37		9.67
	Oxadiazon	80.3	75.1	59.0	61.0	6.67		3.41
	Oxyfluorfen	92.1	90.1	83.3	91.9	2.20		9.88
	Parathion Ethyl	91.9	89.3	71.5	81.1	2.84		12.6
	Parathion Methyl	110	119	103	121	7.86		15.8
	Pendimethalin	78.1	77.1	74.6	82.2	1.36		9.68
	Permethrin	78.4	70.3	69.5	80.1	10.8		14.2
	Phenothrin	52.8	44.4	48.5	65.5	17.2		29.7
	Phorate	77.0	77.9	65.7	82.0	1.06		22.0
	Piperonyl Butoxide	108	106	98.0	113	2.67		14.2
	Prallethrin	73.7	70.9	52.2	66.3	3.87		23.8
	Prodiamine	45.4	41.2	54.9	60.8	9.74		10.2
	Prometon	80.9	83.5	96.0	115	3.16		17.7

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270E	Prometryn	88.8	87.6	75.7	84.0	1.32		10.4
	Pronamide	93.3	93.9	83.0	93.4	0.658		11.8
	Propiconazole	77.6	72.6	80.1	81.9	6.54		2.25
	Pyriproxyfen	80.4	75.6	63.2	65.1	6.12		2.91
	Simazine	97.9	101	81.6	89.8	3.45		9.62
	Sulfentrazone	76.8	75.3	61.4	60.5	2.01		1.29
	Tau-Fluvalinate	101	80.8	80.6	96.0	22.1		17.5
	Tebuconazole	29.1	25.7	45.5	48.0	12.4		4.56
	Terbufos	87.0	87.1	78.3	88.5	0.100		12.3
	Terbuthylazine	86.8	84.9	79.2	92.4	2.26		15.4
	Tetramethrin	122	123	125	111	0.631		12.1
	Trans-Nonachlor	85.0	85.0	77.6	82.3	0.0963		5.94
	Triclosan Methyl	102	105	92.3	96.0	2.60		3.86
	Trifluralin	78.2	79.5	74.4	76.8	1.61		3.19
EPA 8276	Chlordane	107	100	142	114	6.84		21.5
	Toxaphene	128	120	161	147	6.76		8.76
EPA 8321B	2,4-D	129		91.0	95.1			4.44
	3-Hydroxycarbofuran	87.1		47.0	84.8			57.3
	Acesulfame K	96.6		5.72	5.08			11.9
	Acetaminophen	105		125	120			3.97
	Acetamiprid	104		75.4	76.8			1.86
	Afidopyropen	86.0		71.0	60.9			15.2
	Aldicarb	78.9		65.9	82.9			22.8
	Aldicarb Sulfone	102		98.5	95.4			3.23
	Aldicarb Sulfoxide	121		39.8	40.4			1.37
	AMPA	115		12.2	11.8			3.66
	Bentazon	81.0		26.0	41.6			14.9
	Benzovindiflupyr	78.1		77.4	76.3			1.45
	Carbamazepine	107		72.6	75.9			4.43
	Carbaryl	62.3		36.6	36.7			0.367
	Carbofuran	67.5		36.8	39.2			6.39
	Clothianidin	107		87.9	108			19.6
	Dinotefuran	102		106	108			2.37
	Diuron	82.9		52.7	52.0			1.32
	Endothall	143		139	139			0.576
	Fenuron	99.7		60.2	67.6			11.7
	Fluridone	90.1		78.7	75.8			2.76
	Glufosinate	127		9.96	9.16			8.37
	Glyphosate	114		493	517			4.72
	Hydrocodone	107		87.4	92.7			5.85
	Ibuprofen	83.2		77.7	85.9			10.1
	Imazapyr	103		70.9	84.8			13.6
	Imidacloprid	118		133	137			2.42
	Linuron	84.1		68.8	66.3			3.67
	Mandestrobin	89.6		82.5	79.0			4.27
	MCPP	111		88.4	87.2			1.44
	Methiocarb	70.1		47.3	52.7			10.8
	Methomyl	97.2		55.0	75.0			30.8
	Naproxen	69.2		59.8	64.9			8.15
	Oxamyl	103		72.0	83.9			15.3
	Primidone	115		79.9	101			23.0
	Propoxur	64.8		41.2	38.1			7.73
	Pyraclostrobin	74.5		79.7	81.6			2.39
	Sucralose	98.0		81.2	92.5			11.3

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8321B	Thiamethoxam	121	130	142			8.27
	Tolfenpyrad	40.7	53.3	64.2			18.4
	Triclopyr	101	92.0	85.6			7.20
SM 2120 B-2011	Color (true)	97.4				0.625	
SM 2320 B-2011	Total Alkalinity	97.7				1.22	
SM 2540 C-2011	TDS					3.21	
	TDS					2.35	
	TDS					7.32	
SM 4500 F-C-2011	Fluoride	96.7	96.7	96.7			0.0
SM 5310 B-2011	Organic Carbon	97.2	105				0.187

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2225221, 2225224, 2225227
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2225221, 2225224, 2225227
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2225221, 2225224, 2225227
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2225222, 2225225, 2225228
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2225222, 2225225, 2225228
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2225222, 2225225, 2225228
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2225222, 2225225, 2225228
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2225223, 2225226, 2225229
EPA 8270E	Dieldrin (ultra low level) in water matrices by GC/MS/MS	2225240, 2225242
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS-SIM	2225240, 2225242
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2225241, 2225243
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2225240, 2225242
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2225236, 2225238
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2225235, 2225237, 2225239
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2225235, 2225237, 2225239
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2225221, 2225224, 2225227
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2225221, 2225224, 2225227
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2225221, 2225224, 2225227
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2225221, 2225224, 2225227
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2225221, 2225224, 2225227
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2225222, 2225225, 2225228

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	02/12/2021			02/12/2021 14:02	Yen Ta	2225221, 2225224, 2225227
EPA 300.0 Rev. 2.1	02/12/2021			02/18/2021 12:35	Lipi Saha	2225224
	02/12/2021			02/18/2021 14:11	Lipi Saha	2225221
	02/12/2021			02/18/2021 14:23	Lipi Saha	2225227
EPA 350.1 Rev. 2.0	02/12/2021			02/24/2021 16:41	Ping Hua	2225222
	02/12/2021			02/24/2021 16:42	Ping Hua	2225225
	02/12/2021			02/24/2021 16:46	Ping Hua	2225228
EPA 351.2 Rev. 2.0	02/12/2021	02/18/2021 12:27	Yen Ta	02/19/2021 12:16	Virginia P. Brown	2225222
	02/12/2021	02/18/2021 12:27	Yen Ta	02/19/2021 12:18	Virginia P. Brown	2225225
	02/12/2021	02/18/2021 12:27	Yen Ta	02/19/2021 12:20	Virginia P. Brown	2225228
EPA 353.2 Rev. 2.0	02/12/2021			02/15/2021 11:08	Beverly Y. Sanders	2225222
	02/12/2021			02/15/2021 11:16	Beverly Y. Sanders	2225225
	02/12/2021			02/17/2021 09:26	Beverly Y. Sanders	2225228
EPA 365.1 Rev. 2.0	02/12/2021	02/16/2021 18:52	Madeline Gruver	02/17/2021 14:12	Shengyu Wang	2225228
	02/12/2021	02/16/2021 18:52	Madeline Gruver	02/19/2021 11:47	Shengyu Wang	2225222
	02/12/2021	02/16/2021 18:52	Madeline Gruver	02/19/2021 11:50	Shengyu Wang	2225225
EPA 365.1 Rev. 2.0 dissolved	02/12/2021			02/12/2021 16:35	Julia Storbeck	2225229
	02/12/2021			02/12/2021 16:37	Julia Storbeck	2225223
	02/12/2021			02/12/2021 16:38	Julia Storbeck	2225226
EPA 8270E	02/12/2021	02/16/2021 08:00	Fe-Val Siddell	02/17/2021 23:53	Michael Poppell	2225240
	02/12/2021	02/16/2021 08:00	Fe-Val Siddell	02/18/2021 00:24	Michael Poppell	2225242
	02/12/2021	02/16/2021 08:00	Fe-Val Siddell	02/20/2021 19:33	Julie Wi	2225240
	02/12/2021	02/16/2021 08:00	Fe-Val Siddell	02/20/2021 19:56	Julie Wi	2225242
	02/12/2021	02/17/2021 08:30	Rasheda Ghaffari	02/22/2021 16:44	Vandana T. Nagar	2225241
	02/12/2021	02/17/2021 08:30	Rasheda Ghaffari	02/22/2021 17:08	Vandana T. Nagar	2225243
	02/12/2021	03/04/2021 07:30	Fe-Val Siddell	03/05/2021 15:02	Vandana T. Nagar	2225243
EPA 8276	02/12/2021	02/16/2021 08:00	Fe-Val Siddell	02/24/2021 14:08	Arthur Maknenko	2225240
	02/12/2021	02/16/2021 08:00	Fe-Val Siddell	02/24/2021 15:03	Arthur Maknenko	2225242
EPA 8321B	02/12/2021	02/15/2021 10:00	Rebecca Ware	02/15/2021 14:12	Rebecca Ware	2225235
	02/12/2021	02/15/2021 10:00	Rebecca Ware	02/15/2021 14:25	Rebecca Ware	2225237
	02/12/2021	02/15/2021 10:00	Rebecca Ware	02/15/2021 14:39	Rebecca Ware	2225239
	02/12/2021	02/15/2021 10:00	Rebecca Ware	02/18/2021 03:43	Rebecca Ware	2225235
	02/12/2021	02/15/2021 10:00	Rebecca Ware	02/18/2021 03:55	Rebecca Ware	2225237
	02/12/2021	02/15/2021 10:00	Rebecca Ware	02/18/2021 04:07	Rebecca Ware	2225239
	02/12/2021	02/17/2021 10:00	Hoor Shaik	02/18/2021 19:07	Juyoung Kim	2225235
	02/12/2021	02/17/2021 10:00	Hoor Shaik	02/18/2021 19:42	Juyoung Kim	2225237
	02/12/2021	02/17/2021 10:00	Hoor Shaik	02/18/2021 20:17	Juyoung Kim	2225239
	02/12/2021	02/17/2021 10:00	Hoor Shaik	02/19/2021 00:54	Juyoung Kim	2225236
	02/12/2021	02/17/2021 10:00	Hoor Shaik	02/19/2021 01:29	Juyoung Kim	2225238
SM 2120 B-2011	02/12/2021			02/12/2021 16:03	Madeline Gruver	2225221

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2120 B-2011	02/12/2021			02/12/2021 16:04	Madeline Gruver	2225227
	02/12/2021			02/12/2021 16:41	Madeline Gruver	2225224
SM 2320 B-2011	02/12/2021			02/16/2021 00:16	Dale L. Simmons	2225227
	02/12/2021			02/16/2021 00:29	Dale L. Simmons	2225224
	02/12/2021			02/16/2021 00:42	Dale L. Simmons	2225221
SM 2540 C-2011	02/12/2021			02/15/2021 14:26	Yijie Li	2225221, 2225224, 2225227
SM 2540 D-2011	02/12/2021			02/15/2021 14:26	Yijie Li	2225221, 2225224, 2225227
SM 4500 F-C-2011	02/12/2021			02/16/2021 00:16	Dale L. Simmons	2225227
	02/12/2021			02/16/2021 00:29	Dale L. Simmons	2225224
	02/12/2021			02/16/2021 00:42	Dale L. Simmons	2225221
SM 5310 B-2011	02/12/2021			03/01/2021 22:45	Touraj Touran	2225222
	02/12/2021			03/01/2021 22:56	Touraj Touran	2225225
	02/12/2021			03/01/2021 23:14	Touraj Touran	2225228