Chemical Analysis Report

NE-DIST-2021-04-23-01

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

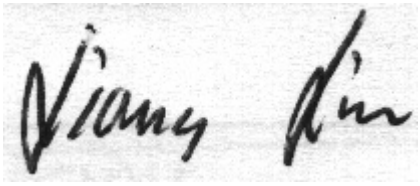
Event Description: **Pellicer Creek Boat 2021**
Request ID: **RQ-2021-04-19-29**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
8800 Baymeadows Way West
Suite 100
Jacksonville, FL 32256
Attn: Jeremy Parrish

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Kerry Tate, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Liang Lin, Environmental Administrator

Date Certified: 14-MAY-2021 10:12



Case Narrative

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

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

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

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

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

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

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

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

Precision is reported as relative percent difference unless otherwise noted.

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

QC Codes used in this report may include:

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

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

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

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

Sample Location: PELLICER CR. AT FAVER DYKES BT. RMP. **Collection Date/Time: 04/22/2021 09:40**

Field ID: 27010965 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2241885	EPA 180.1 Rev. 2.0	Turbidity	8.3		NTU	P397089	
	SM 2320 B-2011	Total Alkalinity	29		mg CaCO3/L	P397394	
	SM 2540 D-2011	TSS	7	I	mg/L	P397331	
	SM 4500 F-C-2011	Fluoride	0.097	I	mg F/L	P397396	
2241886	EPA 350.1 Rev. 2.0	Ammonia-N	0.030		mg N/L	P397981	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.97		mg N/L	P397316	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.012		mg N/L	P397218	
	EPA 365.1 Rev. 2.0	Total-P	0.078		mg P/L	P397255	
	SM 5310 B-2011	Organic Carbon	29		mg C/L	P397242	
2241898	EPA 8321B	Aldicarb	0.020	U	ug/L	P397284	
		Aldicarb Sulfone	0.0020	U	ug/L	P397284	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P397284	
		Carbaryl	0.0020	U	ug/L	P397284	
		Carbofuran	0.0020	U	ug/L	P397284	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P397284	
		Methiocarb	0.0020	U	ug/L	P397284	
		Methomyl	0.0020	U	ug/L	P397284	
		Oxamyl	0.0020	U	ug/L	P397284	
		Propoxur	0.0020	U	ug/L	P397284	
2241899		2,4-D	0.0061	I	ug/L	P396984	
		Acesulfame K	0.10	U	ug/L	P397199	
		2,4,5-T	0.0040	U	ug/L	P396984	
		AMPA	0.10	U	ug/L	P397199	
		Sucralose	0.14		ug/L	P397199	
		Acetaminophen	0.017	I	ug/L	P396984	
		Acetamiprid	0.0020	U	ug/L	P396984	
		Endothall	0.25	U	ug/L	P397199	
		Glufosinate	0.10	U	ug/L	P397199	
		Glyphosate	0.10	U	ug/L	P397199	
		Afidopyropen	0.0020	U	ug/L	P396984	
		Bentazon	0.0047		ug/L	P396984	
		Benzovindiflupyr	0.0020	U	ug/L	P396984	
		Carbamazepine	8.0E-04	U	ug/L	P396984	
		Clothianidin	0.0020	U	ug/L	P396984	
		Dinotefuran	0.0020	U	ug/L	P396984	
		Diuron	0.0020	U	ug/L	P396984	
		Fenuron	0.016	U	ug/L	P396984	
		Fluridone	8.0E-04	U	ug/L	P396984	
		Imazapyr	0.082		ug/L	P396984	
		Hydrocodone	0.0020	U	ug/L	P396984	
		Ibuprofen	0.020	U	ug/L	P396984	
		Imidacloprid	0.0068	I	ug/L	P396984	MS
		Linuron	0.0040	U	ug/L	P396984	
		Mandestrobin	0.0020	U	ug/L	P396984	

Field ID: 27010965 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2241899	EPA 8321B	MCPP	0.0020	U	ug/L	P396984	MS
		Naproxen	0.0080	U	ug/L	P396984	
		Primidone	0.0040	U	ug/L	P396984	
		Pyraclostrobin	0.0020	U	ug/L	P396984	
		Thiamethoxam	0.0020	U	ug/L	P396984	MS
		Tolfenpyrad	0.0020	U	ug/L	P396984	
		Triclopyr	0.0040	U	ug/L	P396984	MS
2241900	EPA 8270E	Aldrin	0.68	U	ng/L	P397215	
		Alpha-BHC	0.10	U	ng/L	P397215	
		Alpha-Chlordane	0.21	U	ng/L	P397215	
		Beta-BHC	0.10	U	ng/L	P397215	
		Beta-Cyfluthrin**	1.3	U	ng/L	P397215	
		Bifenthrin**	0.52	U	ng/L	P397215	
		Chlorothalonil	0.52	U	ng/L	P397215	
		Cis-Nonachlor**	0.21	U	ng/L	P397215	
		Cypermethrin	1.6	U	ng/L	P397215	
		Dacthal**	0.16	U	ng/L	P397215	
		DDD-p,p'	0.26	U	ng/L	P397215	
		DDE-p,p'	0.21	U	ng/L	P397215	
		DDT-p,p'	0.26	U	ng/L	P397215	
		Delta-BHC	0.42	U	ng/L	P397215	
		Deltamethrin**	1.3	U	ng/L	P397215	
		Dichlobenil**	0.10	U	ng/L	P397215	
		Dicofol	1.3	U	ng/L	P397215	MS
		Dieldrin	0.42	U	ng/L	P397215	
		Endosulfan I	0.42	U	ng/L	P397215	
		Endosulfan II	0.42	U	ng/L	P397215	
		Endosulfan Sulfate	0.31	U	ng/L	P397215	
		Endrin	0.42	U	ng/L	P397215	MS, RPD
		Endrin Aldehyde	0.78	U	ng/L	P397215	MS, RPD
		Endrin Ketone	0.42	U	ng/L	P397215	RPD
		Esfenvalerate**	0.78	U	ng/L	P397215	
		Ethalfluralin**	0.16	U	ng/L	P397215	
		Fenpropathrin**	0.26	U	ng/L	P397215	
		Gamma-BHC	0.13	U	ng/L	P397215	
		Gamma-Chlordane	0.21	U	ng/L	P397215	
		Heptachlor	0.21	U	ng/L	P397215	
		Heptachlor Epoxide	0.26	U	ng/L	P397215	
		Hexachlorobenzene	1.0	U	ng/L	P397215	
		Kepone**	5.2	U	ng/L	P397215	RPD
		Lambda-Cyhalothrin**	0.78	U	ng/L	P397215	
		Methoxychlor	0.31	U	ng/L	P397215	
		MGK-264**	0.21	UJ	ng/L	P397215	LCS, RPD
		Mirex	0.31	U	ng/L	P397215	
		Permethrin	1.7	U	ng/L	P397215	

Field ID: 27010965 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2241900	EPA 8270E	Phenothrin**	0.94	UJ	ng/L	P397215	LCS
		Piperonyl Butoxide**	0.16	U	ng/L	P397215	MS, RPD
		Prallethrin**	2.1	UJ	ng/L	P397215	LCS
		Tau-Fluvalinate**	0.26	U	ng/L	P397215	
		Tetramethrin**	0.78	UJ	ng/L	P397215	LCS, MS, RPD
		Trans-Nonachlor**	0.21	U	ng/L	P397215	
		Triclosan Methyl**	0.16	U	ng/L	P397215	
		Trifluralin	0.21	U	ng/L	P397215	
	EPA 8276	Chlordane	5.2	UJ	ng/L	P397215	LCS
		Toxaphene	31	U	ng/L	P397215	
2241901	EPA 8270E	Acetochlor	0.24	U	ng/L	P397049	
		Alachlor	0.24	U	ng/L	P397049	
		Ametryn	0.58	U	ng/L	P397049	
		Atrazine	58		ng/L	P397049	
		Atrazine Desethyl	5.3	I	ng/L	P397049	
		Azinphos Methyl	1.9	U	ng/L	P397049	
		Azoxystrobin**	0.48	U	ng/L	P397049	
		Bromacil	0.48	U	ng/L	P397049	
		Butylate	0.39	U	ng/L	P397049	
		Caffeine**	13	I J	ng/L	P397049	MS, RPD
		Carbophenothion	0.48	U	ng/L	P397049	
		Carfentrazone Ethyl**	0.097	U	ng/L	P397049	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P397049	
		Chlorpyrifos Methyl	0.048	U	ng/L	P397049	
		Cyanazine	3.2	U	ng/L	P397049	
		Demeton	1.5	U	ng/L	P397049	
		Diazinon	0.12	U	ng/L	P397049	
		Difenoconazole**	0.58	U	ng/L	P397049	
		Dimethenamid**	0.097	U	ng/L	P397049	
		Disulfoton	0.48	U	ng/L	P397049	
		Dithiopyr**	0.17	U	ng/L	P397049	
		EPTC	1.2	U	ng/L	P397049	
		Ethion	0.15	U	ng/L	P397049	
		Ethoprop	0.097	U	ng/L	P397049	
		Fenamiphos	0.48	U	ng/L	P397049	
		Fenbuconazole**	0.12	U	ng/L	P397049	
		Fipronil	0.24	U	ng/L	P397049	
		Fipronil Desulfinyl**	0.15	I	ng/L	P397049	
		Fipronil Sulfide	0.15	U	ng/L	P397049	
		Fipronil Sulfone	0.21	I	ng/L	P397049	
		Fluazifop-P-butyl**	0.097	U	ng/L	P397049	
		Fludioxonil**	0.12	U	ng/L	P397049	
		Flumioxazin**	1.7	U	ng/L	P397049	
		Flutolanil**	0.097	U	ng/L	P397049	

Field ID: 27010965 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2241901	EPA 8270E	Fluxapyroxad**	0.097	U	ng/L	P397049	
		Fonofos	0.19	U	ng/L	P397049	
		Hexazinone	0.48	U	ng/L	P397049	
		Imazalil**	0.73	U	ng/L	P397049	
		Iprodione**	0.58	U	ng/L	P397049	
		Malathion	0.34	U	ng/L	P397049	
		Metalaxyl	0.73	U	ng/L	P397049	
		Metolachlor	0.80	I	ng/L	P397049	
		Metribuzin	3.2	U	ng/L	P397049	
		Mevinphos	1.0	U	ng/L	P397049	
		Molinate	0.29	U	ng/L	P397049	
		Myclobutanil**	0.24	U	ng/L	P397049	
		Naled**	1.5	U	ng/L	P397049	
		Norflurazon	0.48	U	ng/L	P397049	
		Oxadiazon	0.80	I	ng/L	P397049	
		Oxyfluorfen**	0.15	U	ng/L	P397049	
		Parathion Ethyl	0.24	U	ng/L	P397049	
		Parathion Methyl	0.53	U	ng/L	P397049	
		Pendimethalin	0.97	U	ng/L	P397049	
		Phorate	0.51	U	ng/L	P397049	
		Prodiamine**	0.17	UJ	ng/L	P397049	RPD
		Prometon	0.87	U	ng/L	P397049	
		Prometryn	0.19	U	ng/L	P397049	
		Pronamide**	0.15	U	ng/L	P397049	
		Propiconazole**	0.62	I	ng/L	P397049	
		Pyriproxyfen**	0.12	U	ng/L	P397049	
		Simazine	8.2		ng/L	P397049	
		Sulfentrazone**	1.1	I	ng/L	P397049	
		Tebuconazole**	0.48	U	ng/L	P397049	
		Terbufos	0.097	U	ng/L	P397049	
		Terbuthylazine	0.41	U	ng/L	P397049	
2241912	EPA 200.7 Rev. 4.4	Calcium	30.5		mg/L	P397819	
		Iron	860		ug/L	P397819	
		Magnesium	50.8		mg/L	P397819	
		Manganese	12.4		ug/L	P397819	
		Zinc	5.3	I	ug/L	P397819	
	EPA 200.8 Rev. 5.4	Aluminum	704		ug/L	P397819	
		Antimony	0.084	I	ug/L	P397819	
		Arsenic	0.77		ug/L	P397819	
		Beryllium	0.049		ug/L	P397819	
		Cadmium	0.020	U	ug/L	P397819	
		Chromium	0.94	I	ug/L	P397819	
		Copper	1.81		ug/L	P397819	
		Lead	0.55		ug/L	P397819	
		Nickel	0.50	U	ug/L	P397819	

Field ID: 27010965 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2241912	EPA 200.8 Rev. 5.4	Selenium	0.20	U	ug/L	P397819	
		Silver	0.010	U	ug/L	P397819	
		Thallium	0.10	U	ug/L	P397819	
2241916	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.036		mg P/L	P397073	

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 some analytes could not be assessed due to high concentration of parameter in the spiked 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.

Sample Location: Pellicer 1.3 mi downstream of I95 **Collection Date/Time: 04/22/2021 10:10**

Field ID: G5NE0593 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2241887	EPA 180.1 Rev. 2.0	Turbidity	7.7		NTU	P397089	
	SM 2320 B-2011	Total Alkalinity	25		mg CaCO3/L	P397395	
	SM 2540 D-2011	TSS	5	I A	mg/L	P397332	
	SM 4500 F-C-2011	Fluoride	0.045	I	mg F/L	P397397	
2241888	EPA 350.1 Rev. 2.0	Ammonia-N	0.018		mg N/L	P397981	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P397602	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.009	I	mg N/L	P397218	
	EPA 365.1 Rev. 2.0	Total-P	0.063		mg P/L	P397255	
	SM 5310 B-2011	Organic Carbon	32		mg C/L	P397242	
2241889	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.033		mg P/L	P397073	

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: P397089

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P397819

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

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P397819

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Beryllium	0.010	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P397981

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P397316

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P397602

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P397218

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P397255

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P397073

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

Reference Method: EPA 8270E
Batch ID: P397049

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azoxystrobin	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Caffeine	7.5	U	ng/L
Carbophenothion	0.50	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Cyanazine	3.2	U	ng/L
Demeton	1.5	U	ng/L
Diazinon	0.12	U	ng/L
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.18	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.12	U	ng/L
Flumioxazin	1.8	U	ng/L
Flutolanil	0.10	U	ng/L
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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P397049

Component	Result	Code	Units
Metalaxyl	0.75	U	ng/L
Metolachlor	0.35	U	ng/L
Metribuzin	3.2	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.30	U	ng/L
Myclobutanil	0.25	U	ng/L
Naled	1.5	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.52	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Pronamide	0.15	U	ng/L
Propiconazole	0.50	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Simazine	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L

Reference Method: EPA 8270E
Batch ID: P397215

Component	Result	Code	Units
Aldrin	0.65	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Bifenthrin	0.50	U	ng/L
Chlorothalonil	0.50	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cypermethrin	1.5	U	ng/L
Dacthal	0.15	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDT-p,p'	0.25	U	ng/L
Delta-BHC	0.40	U	ng/L
Deltamethrin	1.2	U	ng/L
Dichlobenil	0.10	U	ng/L
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.40	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P397215

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

Reference Method: EPA 8276
Batch ID: P397215

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

Reference Method: EPA 8321B
Batch ID: P396984

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8321B
Batch ID: P396984

Component	Result	Code	Units
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: P397199

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: P397284

Component	Result	Code	Units
3-Hydroxycarbofuran	0.0020	U	ug/L
Aldicarb	0.020	U	ug/L
Aldicarb Sulfone	0.0020	U	ug/L
Aldicarb Sulfoxide	0.0020	U	ug/L
Carbaryl	0.0020	U	ug/L
Carbofuran	0.0020	U	ug/L
Methiocarb	0.0020	U	ug/L
Methomyl	0.0020	U	ug/L
Oxamyl	0.0020	U	ug/L
Propoxur	0.0020	U	ug/L

Reference Method: SM 2320 B-2011
Batch ID: P397394

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

Reference Method: SM 2320 B-2011
Batch ID: P397395

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

Quality Assurance Report
Method Blank Results

Reference Method: SM 2540 D-2011
Batch ID: P397331

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P397332

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P397396

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-2011
Batch ID: P397397

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P397242

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P397819

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	108		P	85 - 115
Iron	105		P	85 - 115
Magnesium	102		P	85 - 115
Manganese	102		P	85 - 115
Zinc	102		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P397819

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	93.9		P	85 - 115
Antimony	98.7		P	85 - 115
Arsenic	95.6		P	85 - 115
Beryllium	99.6		P	85 - 115
Cadmium	96.5		P	85 - 115
Chromium	95.1		P	85 - 115
Copper	96.3		P	85 - 115
Lead	102		P	85 - 115
Nickel	96.2		P	85 - 115
Selenium	96.0		P	85 - 115
Silver	94.7		P	85 - 115
Thallium	98.4		P	85 - 115

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P397981

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	98.0		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P397316

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P397602

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P397218

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P397255

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P397073

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	98.4		P	90 - 110

Reference Method: EPA 8270E
Batch ID: P397049

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	89.5	85.5	P/P	70 - 121
Alachlor	87.9	83.3	P/P	70 - 119
Ametryn	79.0	85.0	P/P	61 - 135
Atrazine	94.9	87.9	P/P	76 - 123
Atrazine Desethyl	94.2	85.4	P/P	35 - 140
Azinphos Methyl	124	114	P/P	57 - 163
Azoxystrobin	177	131	P/P	43 - 231
Bromacil	83.0	71.7	P/P	42 - 123
Butylate	51.6	39.3	P/P	34 - 92.0
Caffeine	76.1	102	P/P	70 - 130
Carbophenothion	91.5	78.5	P/P	61 - 121
Carfentrazone Ethyl	98.8	95.3	P/P	62 - 139
Chlorpyrifos Ethyl	87.2	76.0	P/P	67 - 121
Chlorpyrifos Methyl	93.4	88.6	P/P	67 - 120
Cyanazine	139	118	P/P	20 - 226
Demeton	57.9	57.3	P/P	35 - 125
Diazinon	96.4	91.2	P/P	70 - 122
Difenoconazole	133	116	P/P	56 - 186
Dimethenamid	85.6	83.9	P/P	67 - 119
Disulfoton	76.9	63.2	P/P	47 - 120
Dithiopyr	90.8	85.6	P/P	67 - 118
EPTC	54.3	40.2	P/P	33 - 90.0
Ethion	72.4	82.1	P/P	40 - 133
Ethoprop	82.2	72.9	P/P	61 - 121
Fenamiphos	85.9	79.9	P/P	31 - 139
Fenbuconazole	99.1	97.6	P/P	66 - 141
Fipronil	93.6	88.1	P/P	62 - 129
Fipronil Desulfinyl	88.8	88.5	P/P	59 - 126
Fipronil Sulfide	83.5	79.6	P/P	63 - 117
Fipronil Sulfone	89.2	77.1	P/P	57 - 117
Fluazifop-P-butyl	92.0	90.0	P/P	63 - 124
Fludioxonil	94.1	87.3	P/P	63 - 123
Flumioxazin	137	131	P/P	34 - 245
Flutolanil	83.8	86.4	P/P	56 - 131
Fluxapyroxad	89.8	89.2	P/P	57 - 117
Fonofos	76.3	77.0	P/P	61 - 116
Hexazinone	91.3	89.5	P/P	55 - 138
Imazalil	77.8	89.2	P/P	33 - 143
Iprodione	81.9	82.2	P/P	59 - 118
Malathion	86.6	75.1	P/P	62 - 138
Metalaxyl	93.9	92.0	P/P	24 - 147
Metolachlor	81.2	74.3	P/P	68 - 118
Metribuzin	89.4	97.1	P/P	20 - 239
Mevinphos	78.4	69.6	P/P	46 - 124
Molinate	64.8	52.1	P/P	46 - 100
Myclobutanil	91.0	87.2	P/P	32 - 149

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P397049

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Naled	41.6	35.7	P/P	32 - 95.0
Norflurazon	97.5	92.8	P/P	57 - 127
Oxadiazon	86.6	83.6	P/P	63 - 118
Oxyfluorfen	101	99.7	P/P	69 - 137
Parathion Ethyl	86.7	81.7	P/P	70 - 113
Parathion Methyl	96.5	95.8	P/P	71 - 130
Pendimethalin	83.6	85.0	P/P	55 - 118
Phorate	78.3	66.7	P/P	46 - 125
Prodiamine	49.3	35.8	P/P	20 - 141
Prometon	77.1	80.6	P/P	54 - 122
Prometryn	82.1	81.4	P/P	66 - 124
Pronamide	94.6	82.8	P/P	79 - 122
Propiconazole	89.9	87.5	P/P	61 - 126
Pyriproxyfen	95.5	92.1	P/P	52 - 131
Simazine	101	88.3	P/P	75 - 128
Sulfentrazone	53.5	58.7	P/P	20 - 132
Tebuconazole	60.3	78.1	P/P	20 - 116
Terbufos	77.4	71.5	P/P	61 - 117
Terbuthylazine	91.1	86.8	P/P	74 - 116

Reference Method: EPA 8270E
Batch ID: P397215

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	21.1	21.6	P/P	20 - 150
Alpha-BHC	96.9	95.6	P/P	50 - 150
Alpha-Chlordane	71.8	71.9	P/P	50 - 150
Beta-BHC	108	108	P/P	50 - 150
Beta-Cyfluthrin	62.3	62.4	P/P	50 - 150
Bifenthrin	46.7	47.6	P/P	40 - 150
Chlorothalonil	24.5	26.9	P/P	20 - 150
Cis-Nonachlor	68.5	69.5	P/P	50 - 150
Cypermethrin	58.3	66.9	P/P	50 - 150
Dacthal	90.9	89.3	P/P	50 - 150
DDD-p,p'	71.3	72.8	P/P	50 - 150
DDE-p,p'	67.6	66.5	P/P	50 - 150
DDT-p,p'	65.6	66.6	P/P	50 - 150
Delta-BHC	107	108	P/P	50 - 150
Deltamethrin	66.4	68.3	P/P	50 - 150
Dichlobenil	69.8	61.8	P/P	40 - 150
Dicofol	72.9	71.0	P/P	50 - 150
Dieldrin	75.1	74.4	P/P	50 - 150
Endosulfan I	74.4	73.7	P/P	50 - 150
Endosulfan II	78.6	79.6	P/P	50 - 150
Endosulfan Sulfate	89.1	86.5	P/P	50 - 150
Endrin	74.2	75.5	P/P	50 - 150
Endrin Aldehyde	92.0	91.1	P/P	50 - 150
Endrin Ketone	90.2	90.0	P/P	50 - 150
Esfenvalerate	66.0	69.7	P/P	50 - 150
Ethalfluralin	68.5	67.6	P/P	50 - 150
Fenpropathrin	56.4	57.8	P/P	50 - 150
Gamma-BHC	102	102	P/P	50 - 150

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P397215

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Gamma-Chlordane	64.4	65.8	P/P	50 - 150
Heptachlor	59.5	58.3	P/P	50 - 150
Heptachlor Epoxide	75.7	77.8	P/P	50 - 150
Hexachlorobenzene	59.2	57.8	P/P	50 - 150
Kepone	92.3	95.0	P/P	50 - 150
Lambda-Cyhalothrin	73.7	76.3	P/P	50 - 150
Methoxychlor	75.8	74.7	P/P	50 - 150
MGK-264	43.2	44.1	F/F	50 - 150
Mirex	100	102	P/P	50 - 150
Permethrin	62.5	63.7	P/P	50 - 150
Phenothrin	23.5	21.0	F/F	30 - 150
Piperonyl Butoxide	74.9	75.0	P/P	50 - 150
Prallethrin	29.0	30.3	F/F	40 - 150
Tau-Fluvalinate	47.8	49.0	P/P	40 - 150
Tetramethrin	36.0	36.3	F/F	40 - 150
Trans-Nonachlor	68.8	70.4	P/P	50 - 150
Triclosan Methyl	73.5	74.3	P/P	50 - 150
Trifluralin	66.9	67.6	P/P	50 - 150

Reference Method: EPA 8276
Batch ID: P397215

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	110	123	P/F	56 - 117
Toxaphene	85.8	91.5	P/P	45 - 116

Reference Method: EPA 8321B
Batch ID: P396984

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	151		P	30 - 160
2,4,5-T	138		P	30 - 160
Acetaminophen	112		P	30 - 150
Acetamiprid	111		P	30 - 160
Afidopyropen	92.0		P	30 - 160
Bentazon	44.0		P	30 - 150
Benzovindiflupyr	83.1		P	30 - 160
Carbamazepine	94.7		P	30 - 160
Clothianidin	110		P	30 - 160
Dinotefuran	85.9		P	30 - 160
Diuron	78.4		P	30 - 160
Fenuron	103		P	30 - 160
Fluridone	103		P	30 - 160
Hydrocodone	111		P	30 - 160
Ibuprofen	77.4		P	30 - 160
Imazapyr	111		P	30 - 160
Imidacloprid	114		P	30 - 160
Linuron	77.8		P	30 - 160
Mandestrobin	98.6		P	30 - 160
MCPP	158		P	30 - 160
Naproxen	111		P	30 - 160
Primidone	103		P	30 - 160

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P396984

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Pyraclostrobin	76.6		P	30 - 160
Thiamethoxam	121		P	30 - 160
Tolfenpyrad	49.9		P	30 - 160
Triclopyr	150		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P397199

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	99.2		P	40 - 150
AMPA	80.6		P	40 - 150
Endothall	87.2		P	40 - 150
Glufosinate	81.5		P	40 - 150
Glyphosate	98.4		P	40 - 140
Sucralose	106		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P397284

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	107		P	30 - 160
Aldicarb	107		P	30 - 150
Aldicarb Sulfone	109		P	30 - 160
Aldicarb Sulfoxide	77.6		P	30 - 160
Carbaryl	81.1		P	30 - 160
Carbofuran	87.6		P	30 - 160
Methiocarb	72.8		P	30 - 160
Methomyl	97.1		P	30 - 160
Oxamyl	103		P	30 - 160
Propoxur	81.2		P	30 - 160

Reference Method: SM 2320 B-2011
Batch ID: P397394

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.6		P	93 - 104

Reference Method: SM 2320 B-2011
Batch ID: P397395

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	100		P	93 - 104

Reference Method: SM 4500 F-C-2011
Batch ID: P397396

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.2		P	90 - 106

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-2011
Batch ID: P397397

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.9		P	90 - 106

Reference Method: SM 5310 B-2011
Batch ID: P397242

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.2		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P397819

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2241352	Calcium	105		P	80 - 120
2241352	Iron	107	105	P/P	80 - 120
2241352	Magnesium	99.9		P	80 - 120
2241352	Manganese	101	101	P/P	80 - 120
2241352	Zinc	103	101	P/P	80 - 120
2241736	Calcium	104		P	80 - 120
2241736	Iron	108		P	80 - 120
2241736	Magnesium	99.4		P	80 - 120
2241736	Manganese	102		P	80 - 120
2241736	Zinc	107		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P397819

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2241352	Aluminum	98.6	89.0	P/P	80 - 120
2241352	Antimony	105	99.2	P/P	80 - 120
2241352	Arsenic	104	94.8	P/P	80 - 120
2241352	Beryllium	101	98.6	P/P	80 - 120
2241352	Cadmium	101	96.3	P/P	80 - 120
2241352	Chromium	101	91.0	P/P	80 - 120
2241352	Copper	102	91.6	P/P	80 - 120
2241352	Lead	105	104	P/P	80 - 120
2241352	Nickel	101	90.1	P/P	80 - 120
2241352	Selenium	101	91.7	P/P	80 - 120
2241352	Silver	101	90.9	P/P	80 - 120
2241352	Thallium	109	104	P/P	80 - 120
2241736	Aluminum	96.6		P	80 - 120
2241736	Antimony	106		P	80 - 120
2241736	Arsenic	102		P	80 - 120
2241736	Beryllium	101		P	80 - 120
2241736	Cadmium	104		P	80 - 120
2241736	Chromium	101		P	80 - 120
2241736	Copper	99.5		P	80 - 120
2241736	Lead	105		P	80 - 120
2241736	Nickel	99.7		P	80 - 120
2241736	Selenium	99.9		P	80 - 120
2241736	Silver	100		P	80 - 120
2241736	Thallium	109		P	80 - 120

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P397981

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2241955	Ammonia-N	96.8	97.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P397316

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2241726	Kjeldahl Nitrogen	108	110	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P397602

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2243596	Kjeldahl Nitrogen	110	114	F/F	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P397218

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2241886	NO2NO3-N	90.8	90.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P397255

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2241888	Total-P	106	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P397073

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2241929	O-Phosphate-P	94.5	94.0	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P397049

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2240943	Acetochlor	85.1	91.7	P/P	66 - 122
2240943	Alachlor	86.3	92.2	P/P	65 - 122
2240943	Ametryn	92.4	86.5	P/P	45 - 173
2240943	Atrazine	97.7	96.5	P/P	70 - 134
2240943	Atrazine Desethyl	80.7	83.9	P/P	25 - 150
2240943	Azinphos Methyl	123	121	P/P	44 - 174
2240943	Azoxystrobin	202	211	P/P	10 - 268
2240943	Bromacil	76.7	81.9	P/P	31 - 145
2240943	Butylate	52.3	51.7	P/P	15 - 97.0
2240943	Caffeine	455	301	F/F	70 - 130
2240943	Carbophenothion	83.1	88.1	P/P	42 - 129
2240943	Carfentrazone Ethyl	102	100	P/P	62 - 145
2240943	Chlorpyrifos Ethyl	86.4	89.4	P/P	60 - 124
2240943	Chlorpyrifos Methyl	87.5	92.1	P/P	66 - 119
2240943	Cyanazine	132	121	P/P	17 - 225
2240943	Demeton	71.5	75.7	P/P	36 - 142
2240943	Diazinon	94.7	99.7	P/P	70 - 128
2240943	Difenoconazole	131	139	P/P	33 - 222
2240943	Dimethenamid	85.1	90.5	P/P	54 - 125
2240943	Disulfoton	80.7	89.4	P/P	49 - 133
2240943	Dithiopyr	94.5	93.7	P/P	55 - 123
2240943	EPTC	46.7	51.8	P/P	19 - 91.0
2240943	Ethion	78.8	89.7	P/P	13 - 143
2240943	Ethoprop	74.9	76.9	P/P	49 - 144
2240943	Fenamiphos	84.5	89.7	P/P	32 - 136
2240943	Fenbuconazole	101	108	P/P	73 - 148
2240943	Fipronil	95.0	99.3	P/P	57 - 129
2240943	Fipronil Desulfinyl	85.2	93.7	P/P	49 - 127

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P397049

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2240943	Fipronil Sulfide	79.1	86.6	P/P	44 - 127
2240943	Fipronil Sulfone	79.1	85.9	P/P	35 - 126
2240943	Fluazifop-P-butyl	93.0	97.2	P/P	67 - 129
2240943	Fludioxonil	87.0	97.0	P/P	61 - 126
2240943	Flumioxazin	156	172	P/P	38 - 279
2240943	Flutolanil	88.7	93.4	P/P	55 - 136
2240943	Fluxapyroxad	89.8	96.7	P/P	33 - 140
2240943	Fonofos	79.2	79.3	P/P	58 - 125
2240943	Hexazinone	86.5	88.6	P/P	57 - 148
2240943	Imazalil	90.3	109	P/P	10 - 221
2240943	Iprodione	82.3	92.3	P/P	32 - 140
2240943	Malathion	76.2	83.0	P/P	52 - 138
2240943	Metalaxyl	93.5	95.9	P/P	46 - 134
2240943	Metolachlor	78.8	86.8	P/P	58 - 122
2240943	Metribuzin	97.4	104	P/P	16 - 272
2240943	Mevinphos	65.6	70.8	P/P	45 - 140
2240943	Molinate	55.9	61.6	P/P	41 - 103
2240943	Myclobutanil	88.4	95.9	P/P	60 - 134
2240943	Naled	37.0	43.6	P/P	20 - 113
2240943	Norflurazon	97.4	98.3	P/P	51 - 123
2240943	Oxadiazon	91.5	93.4	P/P	44 - 125
2240943	Oxyfluorfen	107	110	P/P	66 - 176
2240943	Parathion Ethyl	82.2	91.3	P/P	57 - 132
2240943	Parathion Methyl	95.7	96.6	P/P	59 - 156
2240943	Pendimethalin	90.5	93.2	P/P	59 - 129
2240943	Phorate	69.3	75.9	P/P	47 - 136
2240943	Prodiamine	40.9	83.2	P/P	10 - 159
2240943	Prometon	74.6	80.4	P/P	59 - 127
2240943	Prometryn	83.6	91.1	P/P	59 - 129
2240943	Pronamide	82.6	93.6	P/P	65 - 145
2240943	Propiconazole	93.9	94.9	P/P	28 - 165
2240943	Pyriproxyfen	95.2	102	P/P	21 - 180
2240943	Simazine	92.2	96.7	P/P	63 - 147
2240943	Sulfentrazone	86.3	96.3	P/P	32 - 136
2240943	Tebuconazole	69.1	67.2	P/P	10 - 117
2240943	Terbufos	75.6	80.3	P/P	61 - 131
2240943	Terbuthylazine	86.6	95.8	P/P	62 - 126

Reference Method: EPA 8270E
Batch ID: P397215

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2242102	Aldrin	107	102	P/P	20 - 170
2242102	Alpha-BHC	89.2	92.8	P/P	50 - 170
2242102	Alpha-Chlordane	70.8	80.8	P/P	50 - 170
2242102	Beta-BHC	94.1	96.1	P/P	50 - 170
2242102	Beta-Cyfluthrin	85.2	83.4	P/P	50 - 170
2242102	Bifenthrin	56.5	62.8	P/P	40 - 170
2242102	Chlorothalonil	161	160	P/P	20 - 170
2242102	Cis-Nonachlor	72.7	83.3	P/P	50 - 170
2242102	Cypermethrin	77.1	72.9	P/P	50 - 170
2242102	Dacthal	60.6	59.0	P/P	50 - 170

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P397215

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2242102	DDD-p,p'	77.8	71.8	P/P	50 - 170
2242102	DDE-p,p'	61.3	68.6	P/P	50 - 170
2242102	DDT-p,p'	63.5	70.5	P/P	50 - 170
2242102	Delta-BHC	121	115	P/P	50 - 170
2242102	Deltamethrin	87.8	80.1	P/P	50 - 170
2242102	Dichlobenil	52.9	63.2	P/P	40 - 170
2242102	Dicofol	59.3	47.5	P/F	50 - 170
2242102	Dieldrin	72.3	78.6	P/P	50 - 170
2242102	Endosulfan I	54.7	58.4	P/P	50 - 170
2242102	Endosulfan II	79.5	87.9	P/P	50 - 170
2242102	Endosulfan Sulfate	86.2	87.7	P/P	50 - 170
2242102	Endrin	76.5	23.7	P/F	50 - 170
2242102	Endrin Aldehyde	72.3	0.822	P/F	50 - 170
2242102	Endrin Ketone	93.7	165	P/P	50 - 170
2242102	Esfenvalerate	86.3	81.4	P/P	50 - 170
2242102	Ethalfluralin	61.2	73.1	P/P	50 - 170
2242102	Fenpropathrin	62.1	56.2	P/P	50 - 170
2242102	Gamma-BHC	95.0	95.2	P/P	50 - 170
2242102	Gamma-Chlordane	68.8	77.0	P/P	50 - 170
2242102	Heptachlor	70.6	84.1	P/P	50 - 170
2242102	Heptachlor Epoxide	59.3	60.4	P/P	50 - 170
2242102	Hexachlorobenzene	63.2	62.5	P/P	50 - 170
2242102	Kepone	65.2	139	P/P	50 - 170
2242102	Lambda-Cyhalothrin	102	89.7	P/P	50 - 170
2242102	Methoxychlor	68.0	79.8	P/P	50 - 170
2242102	MGK-264	93.6	69.0	P/P	50 - 170
2242102	Mirex	115	148	P/P	50 - 170
2242102	Permethrin	82.9	71.6	P/P	50 - 170
2242102	Phenothrin	87.2	95.0	P/P	30 - 170
2242102	Piperonyl Butoxide	92.1	0.440	P/F	50 - 170
2242102	Prallethrin	57.6	52.5	P/P	40 - 170
2242102	Tau-Fluvalinate	67.1	58.8	P/P	40 - 170
2242102	Tetramethrin	59.2	35.1	P/F	40 - 170
2242102	Trans-Nonachlor	61.5	72.8	P/P	50 - 170
2242102	Triclosan Methyl	71.3	75.1	P/P	50 - 170
2242102	Trifluralin	67.4	71.1	P/P	50 - 170

Reference Method: EPA 8276
Batch ID: P397215

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2242904	Chlordane	99.9	115	P/P	47 - 128
2242904	Toxaphene	82.1	108	P/P	11 - 163

Reference Method: EPA 8321B
Batch ID: P396984

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2241346	2,4-D	154	158	P/P	30 - 160
2241346	2,4,5-T	146	150	P/P	30 - 160
2241346	Acetaminophen	111	91.8	P/P	30 - 150
2241346	Acetamiprid	115	120	P/P	30 - 160

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P396984

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2241346	Afidopyropen	104	102	P/P	30 - 160
2241346	Benzovindiflupyr	100	98.5	P/P	30 - 160
2241346	Carbamazepine	96.4	90.0	P/P	30 - 160
2241346	Clothianidin	125	127	P/P	30 - 160
2241346	Dinotefuran	155	156	P/P	30 - 160
2241346	Diuron	73.3	56.6	P/P	30 - 160
2241346	Fenuron	118	111	P/P	30 - 160
2241346	Fluridone	120	121	P/P	30 - 160
2241346	Hydrocodone	131	132	P/P	30 - 160
2241346	Ibuprofen	102	76.7	P/P	30 - 160
2241346	Imidacloprid	244	236	F/F	30 - 160
2241346	Linuron	78.6	81.6	P/P	30 - 160
2241346	Mandestrobin	107	110	P/P	30 - 160
2241346	MCPP	181	184	F/F	30 - 160
2241346	Naproxen	89.7	99.3	P/P	30 - 160
2241346	Primidone	131	119	P/P	30 - 160
2241346	Pyraclostrobin	98.5	99.1	P/P	30 - 160
2241346	Thiamethoxam	195	196	F/F	30 - 160
2241346	Tolfenpyrad	66.3	70.6	P/P	30 - 160
2241346	Triclopyr	163	152	F/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P397199

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2241899	Acesulfame K	64.6	69.6	P/P	40 - 150
2241899	AMPA	97.2	103	P/P	40 - 150
2241899	Endothall	76.8	86.7	P/P	40 - 150
2241899	Glufosinate	95.4	93.6	P/P	40 - 150
2241899	Glyphosate	76.9	76.6	P/P	40 - 140
2241899	Sucralose	50.3	50.1	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P397284

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2243020	3-Hydroxycarbofuran	115	109	P/P	30 - 160
2243020	Aldicarb	135	135	P/P	30 - 150
2243020	Aldicarb Sulfone	132	123	P/P	30 - 160
2243020	Aldicarb Sulfoxide	40.1	36.9	P/P	30 - 160
2243020	Carbaryl	61.8	62.5	P/P	30 - 160
2243020	Carbofuran	70.8	67.7	P/P	30 - 160
2243020	Methiocarb	78.0	69.4	P/P	30 - 160
2243020	Methomyl	102	95.8	P/P	30 - 160
2243020	Oxamyl	107	102	P/P	30 - 160
2243020	Propoxur	63.8	62.0	P/P	30 - 160

Reference Method: SM 4500 F-C-2011
Batch ID: P397396

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2242201	Fluoride	98.5	98.5	P/P	94 - 107

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: SM 4500 F-C-2011
Batch ID: P397397

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2243040	Fluoride	99.5	100	P/P	94 - 107

Reference Method: SM 5310 B-2011
Batch ID: P397242

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2241724	Organic Carbon	97.0	98.0	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P397089

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2242044	Turbidity	7.52	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P397819

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241352	Calcium	1.27	Spike	P	0 - 20
2241352	Iron	1.76	Spike	P	0 - 20
2241352	Magnesium	2.38	Spike	P	0 - 20
2241352	Manganese	0.297	Spike	P	0 - 20
2241352	Zinc	2.30	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P397819

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241352	Aluminum	9.85	Spike	P	0 - 20
2241352	Antimony	5.88	Spike	P	0 - 20
2241352	Arsenic	9.43	Spike	P	0 - 20
2241352	Beryllium	2.37	Spike	P	0 - 20
2241352	Cadmium	5.17	Spike	P	0 - 20
2241352	Chromium	10.1	Spike	P	0 - 20
2241352	Copper	10.5	Spike	P	0 - 20
2241352	Lead	1.55	Spike	P	0 - 20
2241352	Nickel	11.8	Spike	P	0 - 20
2241352	Selenium	9.72	Spike	P	0 - 20
2241352	Silver	10.1	Spike	P	0 - 20
2241352	Thallium	4.10	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P397981

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241955	Ammonia-N	0.558	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P397316

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241726	Kjeldahl Nitrogen	0.631	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P397602

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2243596	Kjeldahl Nitrogen	2.23	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P397218

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241886	NO2NO3-N	0.517	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P397255

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241888	Total-P	1.76	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P397073

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241929	O-Phosphate-P	0.531	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P397049

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2240943	Acetochlor	7.50	Spike	P	0 - 30
2240943	Alachlor	6.61	Spike	P	0 - 30
2240943	Ametryn	6.64	Spike	P	0 - 30
2240943	Atrazine	0.989	Spike	P	0 - 30
2240943	Atrazine Desethyl	3.29	Spike	P	0 - 30
2240943	Azinphos Methyl	1.63	Spike	P	0 - 30
2240943	Azoxystrobin	3.92	Spike	P	0 - 30
2240943	Bromacil	6.55	Spike	P	0 - 30
2240943	Butylate	1.23	Spike	P	0 - 30
2240943	Caffeine	36.1	Spike	F	0 - 30
2240943	Carbophenothion	5.76	Spike	P	0 - 30
2240943	Carfentrazone Ethyl	2.36	Spike	P	0 - 30
2240943	Chlorpyrifos Ethyl	3.31	Spike	P	0 - 30
2240943	Chlorpyrifos Methyl	5.15	Spike	P	0 - 30
2240943	Cyanazine	9.36	Spike	P	0 - 30
2240943	Demeton	5.72	Spike	P	0 - 30
2240943	Diazinon	5.19	Spike	P	0 - 30
2240943	Difenoconazole	5.91	Spike	P	0 - 30
2240943	Dimethenamid	6.16	Spike	P	0 - 30
2240943	Disulfoton	10.3	Spike	P	0 - 30
2240943	Dithiopyr	0.859	Spike	P	0 - 30
2240943	EPTC	10.4	Spike	P	0 - 30
2240943	Ethion	12.9	Spike	P	0 - 30
2240943	Ethoprop	2.60	Spike	P	0 - 30
2240943	Fenamiphos	5.93	Spike	P	0 - 30
2240943	Fenbuconazole	6.98	Spike	P	0 - 30
2240943	Fipronil	4.52	Spike	P	0 - 30
2240943	Fipronil Desulfinyl	9.51	Spike	P	0 - 30
2240943	Fipronil Sulfide	8.97	Spike	P	0 - 30
2240943	Fipronil Sulfone	8.27	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P397049

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2240943	Fluazifop-P-butyl	4.44	Spike	P	0 - 30
2240943	Fludioxonil	10.9	Spike	P	0 - 30
2240943	Flumioxazin	9.66	Spike	P	0 - 30
2240943	Flutolanil	5.16	Spike	P	0 - 30
2240943	Fluxapyroxad	7.31	Spike	P	0 - 30
2240943	Fonofos	0.0820	Spike	P	0 - 30
2240943	Hexazinone	2.20	Spike	P	0 - 30
2240943	Imazalil	19.1	Spike	P	0 - 30
2240943	Iprodione	11.5	Spike	P	0 - 30
2240943	Malathion	8.50	Spike	P	0 - 30
2240943	Metalaxyl	2.51	Spike	P	0 - 30
2240943	Metolachlor	9.68	Spike	P	0 - 30
2240943	Metribuzin	6.33	Spike	P	0 - 30
2240943	Mevinphos	7.64	Spike	P	0 - 30
2240943	Molinate	9.65	Spike	P	0 - 30
2240943	Myclobutanil	8.16	Spike	P	0 - 30
2240943	Naled	16.3	Spike	P	0 - 30
2240943	Norflurazon	0.993	Spike	P	0 - 30
2240943	Oxadiazon	2.05	Spike	P	0 - 30
2240943	Oxyfluorfen	2.82	Spike	P	0 - 30
2240943	Parathion Ethyl	10.5	Spike	P	0 - 30
2240943	Parathion Methyl	0.892	Spike	P	0 - 30
2240943	Pendimethalin	3.01	Spike	P	0 - 30
2240943	Phorate	9.10	Spike	P	0 - 30
2240943	Prodiamine	68.2	Spike	F	0 - 30
2240943	Prometon	7.45	Spike	P	0 - 30
2240943	Prometryn	8.56	Spike	P	0 - 30
2240943	Pronamide	12.5	Spike	P	0 - 30
2240943	Propiconazole	1.06	Spike	P	0 - 30
2240943	Pyriproxyfen	7.17	Spike	P	0 - 30
2240943	Simazine	2.51	Spike	P	0 - 30
2240943	Sulfentrazone	11.0	Spike	P	0 - 30
2240943	Tebuconazole	2.77	Spike	P	0 - 30
2240943	Terbufos	6.04	Spike	P	0 - 30
2240943	Terbuthylazine	10.1	Spike	P	0 - 30
LFB	Acetochlor	4.54	LCS	P	0 - 30
LFB	Alachlor	5.36	LCS	P	0 - 30
LFB	Ametryn	7.27	LCS	P	0 - 30
LFB	Atrazine	7.65	LCS	P	0 - 30
LFB	Atrazine Desethyl	9.71	LCS	P	0 - 30
LFB	Azinphos Methyl	8.62	LCS	P	0 - 30
LFB	Azoxystrobin	29.5	LCS	P	0 - 30
LFB	Bromacil	14.7	LCS	P	0 - 30
LFB	Butylate	27.0	LCS	P	0 - 30
LFB	Caffeine	28.8	LCS	P	0 - 30
LFB	Carbophenothion	15.3	LCS	P	0 - 30
LFB	Carfentrazone Ethyl	3.60	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	13.8	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	5.33	LCS	P	0 - 30
LFB	Cyanazine	16.4	LCS	P	0 - 30
LFB	Demeton	1.05	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P397049

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Diazinon	5.51	LCS	P	0 - 30
LFB	Difenoconazole	13.9	LCS	P	0 - 30
LFB	Dimethenamid	2.02	LCS	P	0 - 30
LFB	Disulfoton	19.6	LCS	P	0 - 30
LFB	Dithiopyr	5.87	LCS	P	0 - 30
LFB	EPTC	30.0	LCS	P	0 - 30
LFB	Ethion	12.5	LCS	P	0 - 30
LFB	Ethoprop	11.9	LCS	P	0 - 30
LFB	Fenamiphos	7.22	LCS	P	0 - 30
LFB	Fenbuconazole	1.55	LCS	P	0 - 30
LFB	Fipronil	6.11	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	0.308	LCS	P	0 - 30
LFB	Fipronil Sulfide	4.82	LCS	P	0 - 30
LFB	Fipronil Sulfone	14.4	LCS	P	0 - 30
LFB	Fluazifop-P-butyl	2.09	LCS	P	0 - 30
LFB	Fludioxonil	7.52	LCS	P	0 - 30
LFB	Flumioxazin	4.42	LCS	P	0 - 30
LFB	Flutolanil	3.15	LCS	P	0 - 30
LFB	Fluxapyroxad	0.644	LCS	P	0 - 30
LFB	Fonofos	0.932	LCS	P	0 - 30
LFB	Hexazinone	2.02	LCS	P	0 - 30
LFB	Imazalil	13.7	LCS	P	0 - 30
LFB	Iprodione	0.324	LCS	P	0 - 30
LFB	Malathion	14.3	LCS	P	0 - 30
LFB	Metalaxyl	1.99	LCS	P	0 - 30
LFB	Metolachlor	8.83	LCS	P	0 - 30
LFB	Metribuzin	8.19	LCS	P	0 - 30
LFB	Mevinphos	11.9	LCS	P	0 - 30
LFB	Molinate	21.6	LCS	P	0 - 30
LFB	Myclobutanil	4.34	LCS	P	0 - 30
LFB	Naled	15.3	LCS	P	0 - 30
LFB	Norflurazon	4.93	LCS	P	0 - 30
LFB	Oxadiazon	3.54	LCS	P	0 - 30
LFB	Oxyfluorfen	1.45	LCS	P	0 - 30
LFB	Parathion Ethyl	5.95	LCS	P	0 - 30
LFB	Parathion Methyl	0.727	LCS	P	0 - 30
LFB	Pendimethalin	1.70	LCS	P	0 - 30
LFB	Phorate	15.9	LCS	P	0 - 30
LFB	Prodiamine	31.7	LCS	F	0 - 30
LFB	Prometon	4.42	LCS	P	0 - 30
LFB	Prometryn	0.817	LCS	P	0 - 30
LFB	Pronamide	13.3	LCS	P	0 - 30
LFB	Propiconazole	2.72	LCS	P	0 - 30
LFB	Pyriproxyfen	3.61	LCS	P	0 - 30
LFB	Simazine	13.1	LCS	P	0 - 30
LFB	Sulfentrazone	9.16	LCS	P	0 - 30
LFB	Tebuconazole	25.8	LCS	P	0 - 30
LFB	Terbufos	7.93	LCS	P	0 - 30
LFB	Terbuthylazine	4.85	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P397215

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2242102	Aldrin	4.38	Spike	P	0 - 30
2242102	Alpha-BHC	3.91	Spike	P	0 - 30
2242102	Alpha-Chlordane	13.2	Spike	P	0 - 30
2242102	Beta-BHC	2.07	Spike	P	0 - 30
2242102	Beta-Cyfluthrin	2.17	Spike	P	0 - 30
2242102	Bifenthrin	10.4	Spike	P	0 - 30
2242102	Chlorothalonil	0.324	Spike	P	0 - 50
2242102	Cis-Nonachlor	13.7	Spike	P	0 - 30
2242102	Cypermethrin	5.61	Spike	P	0 - 30
2242102	Dacthal	2.68	Spike	P	0 - 30
2242102	DDD-p,p'	7.98	Spike	P	0 - 30
2242102	DDE-p,p'	11.2	Spike	P	0 - 30
2242102	DDT-p,p'	10.5	Spike	P	0 - 30
2242102	Delta-BHC	4.87	Spike	P	0 - 30
2242102	Deltamethrin	9.11	Spike	P	0 - 30
2242102	Dichlobenil	17.8	Spike	P	0 - 30
2242102	Dicofol	22.1	Spike	P	0 - 30
2242102	Dieldrin	8.37	Spike	P	0 - 30
2242102	Endosulfan I	6.50	Spike	P	0 - 30
2242102	Endosulfan II	10.1	Spike	P	0 - 30
2242102	Endosulfan Sulfate	1.77	Spike	P	0 - 30
2242102	Endrin	105	Spike	F	0 - 30
2242102	Endrin Aldehyde	196	Spike	F	0 - 30
2242102	Endrin Ketone	55.1	Spike	F	0 - 30
2242102	Esfenvalerate	5.89	Spike	P	0 - 30
2242102	Ethalfluralin	17.7	Spike	P	0 - 30
2242102	Fenpropathrin	9.87	Spike	P	0 - 30
2242102	Gamma-BHC	0.210	Spike	P	0 - 30
2242102	Gamma-Chlordane	11.2	Spike	P	0 - 30
2242102	Heptachlor	17.4	Spike	P	0 - 30
2242102	Heptachlor Epoxide	1.88	Spike	P	0 - 30
2242102	Hexachlorobenzene	1.08	Spike	P	0 - 30
2242102	Kepone	72.4	Spike	F	0 - 30
2242102	Lambda-Cyhalothrin	12.5	Spike	P	0 - 30
2242102	Methoxychlor	16.0	Spike	P	0 - 30
2242102	MGK-264	30.3	Spike	F	0 - 30
2242102	Mirex	25.1	Spike	P	0 - 30
2242102	Permethrin	14.7	Spike	P	0 - 30
2242102	Phenothrin	8.62	Spike	P	0 - 30
2242102	Piperonyl Butoxide	198	Spike	F	0 - 30
2242102	Prallethrin	9.17	Spike	P	0 - 30
2242102	Tau-Fluvalinate	13.1	Spike	P	0 - 30
2242102	Tetramethrin	51.0	Spike	F	0 - 30
2242102	Trans-Nonachlor	16.8	Spike	P	0 - 30
2242102	Triclosan Methyl	5.28	Spike	P	0 - 30
2242102	Trifluralin	5.35	Spike	P	0 - 30
LFB	Aldrin	2.09	LCS	P	0 - 30
LFB	Alpha-BHC	1.36	LCS	P	0 - 30
LFB	Alpha-Chlordane	0.0858	LCS	P	0 - 30
LFB	Beta-BHC	0.0385	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	0.183	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P397215

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Bifenthrin	1.86	LCS	P	0 - 30
LFB	Chlorothalonil	9.36	LCS	P	0 - 50
LFB	Cis-Nonachlor	1.39	LCS	P	0 - 30
LFB	Cypermethrin	13.7	LCS	P	0 - 30
LFB	Dacthal	1.73	LCS	P	0 - 30
LFB	DDD-p,p'	2.17	LCS	P	0 - 30
LFB	DDE-p,p'	1.72	LCS	P	0 - 30
LFB	DDT-p,p'	1.60	LCS	P	0 - 30
LFB	Delta-BHC	0.590	LCS	P	0 - 30
LFB	Deltamethrin	2.74	LCS	P	0 - 30
LFB	Dichlobenil	12.2	LCS	P	0 - 30
LFB	Dicofol	2.58	LCS	P	0 - 30
LFB	Dieldrin	0.981	LCS	P	0 - 30
LFB	Endosulfan I	1.02	LCS	P	0 - 30
LFB	Endosulfan II	1.24	LCS	P	0 - 30
LFB	Endosulfan Sulfate	2.90	LCS	P	0 - 30
LFB	Endrin	1.74	LCS	P	0 - 30
LFB	Endrin Aldehyde	0.882	LCS	P	0 - 30
LFB	Endrin Ketone	0.260	LCS	P	0 - 30
LFB	Esfenvalerate	5.56	LCS	P	0 - 30
LFB	Ethalfluralin	1.28	LCS	P	0 - 30
LFB	Fenpropathrin	2.48	LCS	P	0 - 30
LFB	Gamma-BHC	0.365	LCS	P	0 - 30
LFB	Gamma-Chlordane	2.13	LCS	P	0 - 30
LFB	Heptachlor	2.13	LCS	P	0 - 30
LFB	Heptachlor Epoxide	2.64	LCS	P	0 - 30
LFB	Hexachlorobenzene	2.34	LCS	P	0 - 30
LFB	Kepone	2.92	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	3.51	LCS	P	0 - 30
LFB	Methoxychlor	1.52	LCS	P	0 - 30
LFB	MGK-264	2.08	LCS	P	0 - 30
LFB	Mirex	1.53	LCS	P	0 - 30
LFB	Permethrin	1.89	LCS	P	0 - 30
LFB	Phenothrin	11.6	LCS	P	0 - 30
LFB	Piperonyl Butoxide	0.116	LCS	P	0 - 30
LFB	Prallethrin	4.65	LCS	P	0 - 30
LFB	Tau-Fluvalinate	2.65	LCS	P	0 - 30
LFB	Tetramethrin	0.775	LCS	P	0 - 30
LFB	Trans-Nonachlor	2.25	LCS	P	0 - 30
LFB	Triclosan Methyl	1.04	LCS	P	0 - 30
LFB	Trifluralin	0.997	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P397215

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2242904	Chlordane	14.1	Spike	P	0 - 30
2242904	Toxaphene	27.2	Spike	P	0 - 30
LFB	Chlordane	10.9	LCS	P	0 - 30
LFB	Toxaphene	6.34	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P396984

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241346	2,4-D	2.49	Spike	P	0 - 30
2241346	2,4,5-T	2.47	Spike	P	0 - 30
2241346	Acetaminophen	15.7	Spike	P	0 - 30
2241346	Acetamiprid	4.09	Spike	P	0 - 30
2241346	Afidopyropen	1.46	Spike	P	0 - 30
2241346	Bentazon	16.5	Spike	P	0 - 30
2241346	Benzovindiflupyr	1.66	Spike	P	0 - 30
2241346	Carbamazepine	6.87	Spike	P	0 - 30
2241346	Clothianidin	1.52	Spike	P	0 - 30
2241346	Dinotefuran	0.803	Spike	P	0 - 30
2241346	Diuron	25.7	Spike	P	0 - 30
2241346	Fenuron	5.96	Spike	P	0 - 30
2241346	Fluridone	0.683	Spike	P	0 - 30
2241346	Hydrocodone	0.830	Spike	P	0 - 30
2241346	Ibuprofen	28.5	Spike	P	0 - 30
2241346	Imazapyr	4.89	Spike	P	0 - 30
2241346	Imidacloprid	2.76	Spike	P	0 - 30
2241346	Linuron	3.71	Spike	P	0 - 30
2241346	Mandestrobin	3.57	Spike	P	0 - 30
2241346	MCPP	1.32	Spike	P	0 - 30
2241346	Naproxen	10.1	Spike	P	0 - 30
2241346	Primidone	9.53	Spike	P	0 - 30
2241346	Pyraclostrobin	0.678	Spike	P	0 - 30
2241346	Thiamethoxam	0.613	Spike	P	0 - 30
2241346	Tolfenpyrad	6.33	Spike	P	0 - 30
2241346	Triclopyr	6.93	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P397199

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241899	Acesulfame K	7.51	Spike	P	0 - 30
2241899	AMPA	5.48	Spike	P	0 - 30
2241899	Endothall	12.0	Spike	P	0 - 30
2241899	Glufosinate	1.99	Spike	P	0 - 30
2241899	Glyphosate	0.365	Spike	P	0 - 30
2241899	Sucralose	0.408	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P397284

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2243020	3-Hydroxycarbofuran	5.45	Spike	P	0 - 30
2243020	Aldicarb	0.178	Spike	P	0 - 30
2243020	Aldicarb Sulfone	7.17	Spike	P	0 - 30
2243020	Aldicarb Sulfoxide	8.28	Spike	P	0 - 30
2243020	Carbaryl	1.13	Spike	P	0 - 30
2243020	Carbofuran	4.49	Spike	P	0 - 30
2243020	Methiocarb	11.7	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P397284

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2243020	Methomyl	6.70	Spike	P	0 - 30
2243020	Oxamyl	4.64	Spike	P	0 - 30
2243020	Propoxur	2.81	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P397394

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2242201	Total Alkalinity	0.610	Sample	P	0 - 8.1

Reference Method: SM 2320 B-2011
Batch ID: P397395

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2243040	Total Alkalinity	0.909	Sample	P	0 - 8.1

Reference Method: SM 4500 F-C-2011
Batch ID: P397396

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2242201	Fluoride	0.0	Spike	P	0 - 2.8

Reference Method: SM 4500 F-C-2011
Batch ID: P397397

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2243040	Fluoride	0.467	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011
Batch ID: P397242

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241724	Organic Carbon	0.600	Spike	P	0 - 20

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

Quality Assurance Report
Surrogates

Lab Sample ID: 2241898
Field Sample ID: 27010965

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	58.8	P	30 - 160

Lab Sample ID: 2241899
Field Sample ID: 27010965

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	117	P	30 - 160
EPA 8321B	Acetaminophen-d4	99.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	87.9	P	30 - 160
EPA 8321B	Diuron-d6	45.8	P	30 - 160
EPA 8321B	Endothall-d6	80.6	P	40 - 160
EPA 8321B	Endothall-d6	80.6	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	67.8	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	67.8	P	40 - 160
EPA 8321B	Ibuprofen-d3	69.8	P	30 - 160
EPA 8321B	Primidone-d5	97.1	P	30 - 160
EPA 8321B	Sucralose-d6	48.7	P	30 - 160
EPA 8321B	Sucralose-d6	48.7	P	30 - 160

Lab Sample ID: 2241900
Field Sample ID: 27010965

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	64.4	P	35 - 120
EPA 8270E	Tetrachloro-m-xylene	52.4	P	30 - 110
EPA 8276	Decachlorobiphenyl	65.8	P	29 - 92.0
EPA 8276	PCNB	81.1	P	43 - 134

Lab Sample ID: 2241901
Field Sample ID: 27010965

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	63.7	P	20 - 200
EPA 8270E	Simazine-d10	121	P	73 - 135
EPA 8270E	Terbufos-d10	109	P	58 - 130

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A104944
Included Lab Sample IDs: 2241889, 2241916

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.4	99.8	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A104949
Included Lab Sample IDs: 2241885, 2241887

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.5	101	P/P	95 - 105

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A105008
Included Lab Sample IDs: 2241886, 2241888

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	98.5	100	P/P	90 - 110

Reference Method: SM 5310 B-2011
Run ID: A105019
Included Lab Sample IDs: 2241886, 2241888

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.2	95.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A105047
Included Lab Sample IDs: 2241886, 2241888

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	103	105	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A105072
Included Lab Sample IDs: 2241899

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	123	88.1	P/P	40 - 160
AMPA	73.3	72.0	P/P	40 - 160
Endothall	81.0	106	P/P	40 - 160
Glufosinate	65.8	79.0	P/P	40 - 160
Glyphosate	103	94.2	P/P	40 - 160

Reference Method: SM 2320 B-2011
Run ID: A105080
Included Lab Sample IDs: 2241885, 2241887

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	100	97.7	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: SM 4500 F-C-2011
Run ID: A105080
Included Lab Sample IDs: 2241885, 2241887

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

Reference Method: EPA 8321B
Run ID: A105083
Included Lab Sample IDs: 2241899

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	109	110	P/P	60 - 160

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A105085
Included Lab Sample IDs: 2241886

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	90.2	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A105098
Included Lab Sample IDs: 2241899

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	96.4	107	P/P	50 - 150
2,4,5-T	104	103	P/P	50 - 150
3-Hydroxycarbofuran	130	131	P/P	60 - 150
Acetaminophen	114	110	P/P	60 - 160
Acetamiprid	122	127	P/P	50 - 150
Afidopyropen	123	139	P/P	50 - 150
Aldicarb	91.6	105	P/P	60 - 150
Aldicarb Sulfone	122	120	P/P	50 - 150
Aldicarb Sulfoxide	105	115	P/P	50 - 150
Bentazon	150	122	P/P	50 - 160
Benzovindiflupyr	115	128	P/P	50 - 160
Carbamazepine	117	123	P/P	60 - 150
Carbaryl	120	123	P/P	60 - 150
Carbofuran	108	114	P/P	50 - 150
Clothianidin	103	119	P/P	60 - 150
Dinotefuran	136	121	P/P	50 - 150
Diuron	120	98.0	P/P	60 - 160
Fenuron	116	108	P/P	60 - 150
Fluridone	135	133	P/P	60 - 160
Hydrocodone	134	124	P/P	60 - 150
Ibuprofen	80.9	107	P/P	50 - 160
Imazapyr	115	107	P/P	50 - 150
Imidacloprid	114	127	P/P	60 - 150
Linuron	103	104	P/P	60 - 150
Mandestrobin	114	119	P/P	50 - 150
MCPP	102	111	P/P	50 - 150
Methiocarb	117	121	P/P	50 - 150
Methomyl	121	120	P/P	50 - 150
Naproxen	118	139	P/P	50 - 160
Oxamyl	120	122	P/P	50 - 150

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A105098
Included Lab Sample IDs: 2241899

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Primidone	94.1	127	P/P	60 - 150
Propoxur	116	114	P/P	50 - 150
Pyraclostrobin	116	116	P/P	60 - 150
Thiamethoxam	136	135	P/P	50 - 150
Tolfenpyrad	108	123	P/P	60 - 150
Triclopyr	118	110	P/P	50 - 150

Reference Method: EPA 8270E
Run ID: A105102
Included Lab Sample IDs: 2241901

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	91.9		P	80 - 120
Alachlor	94.4		P	80 - 120
Ametryn	87.6		P	80 - 120
Atrazine Desethyl	97.5		P	80 - 120
Azinphos Methyl	97.2		P	80 - 120
Azoxystrobin	91.0		P	80 - 120
Bromacil	102		P	80 - 120
Butylate	107		P	80 - 120
Caffeine	102		P	80 - 120
Carbophenothion	96.1		P	80 - 120
Carfentrazone Ethyl	96.4		P	80 - 120
Chlorpyrifos Ethyl	95.3		P	80 - 120
Chlorpyrifos Methyl	101		P	80 - 120
Cyanazine	103		P	80 - 120
Demeton	96.7		P	80 - 120
Diazinon	97.9		P	80 - 120
Difenoconazole	91.0		P	80 - 120
Dimethenamid	95.2		P	80 - 120
Disulfoton	92.3		P	80 - 120
Dithiopyr	97.3		P	80 - 120
EPTC	95.7		P	80 - 120
Ethion	96.2		P	80 - 120
Ethoprop	99.3		P	80 - 120
Fenamiphos	97.7		P	80 - 120
Fenbuconazole	93.4		P	80 - 120
Fipronil	93.7		P	80 - 120
Fipronil Desulfinyl	93.4		P	80 - 120
Fipronil Sulfide	102		P	80 - 120
Fipronil Sulfone	98.5		P	80 - 120
Fluazifop-P-butyl	94.7		P	80 - 120
Fludioxonil	97.4		P	80 - 120
Flumioxazin	93.3		P	80 - 120
Flutolanil	92.6		P	80 - 120
Fluxapyroxad	98.4		P	80 - 120
Fonofos	103		P	80 - 120
Hexazinone	103		P	80 - 120
Imazalil	92.6		P	80 - 120
Iprodione	95.8		P	80 - 120
Malathion	94.8		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A105102
Included Lab Sample IDs: 2241901

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Metalaxyl	99.4		P	80 - 120
Metolachlor	91.6		P	80 - 120
Metribuzin	101		P	80 - 120
Mevinphos	96.7		P	80 - 120
Molinate	99.0		P	80 - 120
Myclobutanil	93.2		P	80 - 120
Naled	101		P	80 - 120
Norflurazon	94.1		P	80 - 120
Oxadiazon	93.4		P	80 - 120
Oxyfluorfen	91.5		P	80 - 120
Parathion Ethyl	98.5		P	80 - 120
Parathion Methyl	101		P	80 - 120
Pendimethalin	101		P	80 - 120
Phorate	96.5		P	80 - 120
Prodiamine	92.1		P	80 - 120
Prometon	96.2		P	80 - 120
Prometryn	95.0		P	80 - 120
Pronamide	91.7		P	80 - 120
Propiconazole	94.6		P	80 - 120
Pyriproxyfen	95.7		P	80 - 120
Simazine	91.5		P	80 - 120
Sulfentrazone	94.4		P	80 - 120
Tebuconazole	94.3		P	80 - 120
Terbufos	99.5		P	80 - 120
Terbuthylazine	98.3		P	80 - 120

Reference Method: EPA 8270E
Run ID: A105126
Included Lab Sample IDs: 2241900

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	99.1		P	80 - 120
Alpha-BHC	100		P	80 - 120
Alpha-Chlordane	96.9		P	80 - 120
Beta-BHC	101		P	80 - 120
Beta-Cyfluthrin	99.1		P	80 - 120
Bifenthrin	99.1		P	80 - 120
Chlorothalonil	85.0		P	80 - 120
Cis-Nonachlor	98.5		P	80 - 120
Cypermethrin	100		P	80 - 120
Dacthal	96.2		P	80 - 120
DDD-p,p'	100		P	80 - 120
DDE-p,p'	96.9		P	80 - 120
DDT-p,p'	99.6		P	80 - 120
Delta-BHC	98.8		P	80 - 120
Deltamethrin	97.7		P	80 - 120
Dichlobenil	82.6		P	80 - 120
Dicofol	93.0		P	80 - 120
Dieldrin	95.4		P	80 - 120
Endosulfan I	97.7		P	80 - 120
Endosulfan II	99.0		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A105126
Included Lab Sample IDs: 2241900

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Endosulfan Sulfate	106		P	80 - 120
Endrin	99.9		P	80 - 120
Endrin Aldehyde	103		P	80 - 120
Endrin Ketone	96.7		P	80 - 120
Esfenvalerate	98.7		P	80 - 120
Ethalfluralin	99.7		P	80 - 120
Fenpropathrin	98.0		P	80 - 120
Gamma-BHC	101		P	80 - 120
Gamma-Chlordane	95.4		P	80 - 120
Heptachlor	95.2		P	80 - 120
Heptachlor Epoxide	96.2		P	80 - 120
Hexachlorobenzene	96.6		P	80 - 120
Kepone	96.9		P	80 - 120
Lambda-Cyhalothrin	100		P	80 - 120
Methoxychlor	97.0		P	80 - 120
MGK-264	104		P	80 - 120
Mirex	101		P	80 - 120
Permethrin	99.5		P	80 - 120
Phenothrin	104		P	80 - 120
Piperonyl Butoxide	96.1		P	80 - 120
Prallethrin	97.5		P	80 - 120
Tau-Fluvalinate	97.7		P	80 - 120
Tetramethrin	96.5		P	80 - 120
Trans-Nonachlor	97.4		P	80 - 120
Triclosan Methyl	95.9		P	80 - 120
Trifluralin	101		P	80 - 120

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A105188
Included Lab Sample IDs: 2241888

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	95.1	101	P/P	90 - 110

Reference Method: EPA 8276
Run ID: A105244
Included Lab Sample IDs: 2241900

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	96.5		P	80 - 120
Toxaphene	104		P	80 - 120

Reference Method: EPA 8270E
Run ID: A105254
Included Lab Sample IDs: 2241901

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A105270
Included Lab Sample IDs: 2241912

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	104	103	P/P	90 - 110
Iron	102	103	P/P	90 - 110
Magnesium	102	102	P/P	90 - 110
Manganese	102	102	P/P	90 - 110
Zinc	105	104	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A105274
Included Lab Sample IDs: 2241912

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	104	105	P/P	90 - 110
Antimony	105	106	P/P	90 - 110
Arsenic	102	103	P/P	90 - 110
Cadmium	104	105	P/P	90 - 110
Chromium	101	102	P/P	90 - 110
Copper	101	101	P/P	90 - 110
Nickel	102	102	P/P	90 - 110
Selenium	101	103	P/P	90 - 110
Silver	102	102	P/P	90 - 110
Thallium	102	102	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A105306
Included Lab Sample IDs: 2241912

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

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A105337
Included Lab Sample IDs: 2241886, 2241888

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.7	98.8	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			Precision		
							LCS	SMP	MS
EPA 180.1 Rev. 2.0	Turbidity							7.52	
EPA 200.7 Rev. 4.4	Calcium	108		105	104				1.27
	Iron	105		107	105	108			1.76
	Magnesium	102		99.9	99.4				2.38
	Manganese	102		101	101	102			0.297
	Zinc	102		103	101	107			2.30
EPA 200.8 Rev. 5.4	Aluminum	93.9		98.6	89.0	96.6			9.85
	Antimony	98.7		105	99.2	106			5.88
	Arsenic	95.6		104	94.8	102			9.43
	Beryllium	99.6		101	98.6	101			2.37
	Cadmium	96.5		101	96.3	104			5.17
	Chromium	95.1		101	91.0	101			10.1
	Copper	96.3		102	91.6	99.5			10.5
	Lead	102		105	104	105			1.55
	Nickel	96.2		101	90.1	99.7			11.8
	Selenium	96.0		101	91.7	99.9			9.72
	Silver	94.7		101	90.9	100			10.1
	Thallium	98.4		109	104	109			4.10
EPA 350.1 Rev. 2.0	Ammonia-N	98.0		96.8	97.4				0.558
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	105		108	110				0.631
	Kjeldahl Nitrogen	104		110	114				2.23
EPA 353.2 Rev. 2.0	NO2NO3-N	98.5		90.8	90.2				0.517
EPA 365.1 Rev. 2.0	Total-P	104		106	104				1.76
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.4		94.5	94.0				0.531
EPA 8270E	Acetochlor	89.5	85.5	85.1	91.7		4.54		7.50
	Alachlor	87.9	83.3	86.3	92.2		5.36		6.61
	Aldrin	21.1	21.6	107	102		2.09		4.38
	Alpha-BHC	96.9	95.6	89.2	92.8		1.36		3.91
	Alpha-Chlordane	71.8	71.9	70.8	80.8		0.0858		13.2
	Ametryn	79.0	85.0	92.4	86.5		7.27		6.64
	Atrazine	94.9	87.9	97.7	96.5		7.65		0.989
	Atrazine Desethyl	94.2	85.4	80.7	83.9		9.71		3.29
	Azinphos Methyl	124	114	123	121		8.62		1.63
	Azoxystrobin	177	131	202	211		29.5		3.92
	Beta-BHC	108	108	94.1	96.1		0.0385		2.07
	Beta-Cyfluthrin	62.3	62.4	85.2	83.4		0.183		2.17
	Bifenthrin	46.7	47.6	56.5	62.8		1.86		10.4
	Bromacil	83.0	71.7	76.7	81.9		14.7		6.55
	Butylate	51.6	39.3	52.3	51.7		27.0		1.23
	Caffeine	76.1	102	455	301		28.8		36.1
	Carbophenothion	91.5	78.5	83.1	88.1		15.3		5.76
	Carfentrazone Ethyl	98.8	95.3	102	100		3.60		2.36
	Chlorothalonil	24.5	26.9	161	160		9.36		0.324
	Chlorpyrifos Ethyl	87.2	76.0	86.4	89.4		13.8		3.31
	Chlorpyrifos Methyl	93.4	88.6	87.5	92.1		5.33		5.15
	Cis-Nonachlor	68.5	69.5	72.7	83.3		1.39		13.7
	Cyanazine	139	118	132	121		16.4		9.36
	Cypermethrin	58.3	66.9	77.1	72.9		13.7		5.61
	Dacthal	90.9	89.3	60.6	59.0		1.73		2.68
	DDD-p,p'	71.3	72.8	77.8	71.8		2.17		7.98
	DDE-p,p'	67.6	66.5	61.3	68.6		1.72		11.2
	DDT-p,p'	65.6	66.6	63.5	70.5		1.60		10.5
	Delta-BHC	107	108	121	115		0.590		4.87
	Deltamethrin	66.4	68.3	87.8	80.1		2.74		9.11

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270E	Demeton	57.9	57.3	71.5	75.7	1.05		5.72
	Diazinon	96.4	91.2	94.7	99.7	5.51		5.19
	Dichlobenil	69.8	61.8	52.9	63.2	12.2		17.8
	Dicofol	72.9	71.0	59.3	47.5	2.58		22.1
	Dieldrin	75.1	74.4	72.3	78.6	0.981		8.37
	Difenoconazole	133	116	131	139	13.9		5.91
	Dimethenamid	85.6	83.9	85.1	90.5	2.02		6.16
	Disulfoton	76.9	63.2	80.7	89.4	19.6		10.3
	Dithiopyr	90.8	85.6	94.5	93.7	5.87		0.859
	Endosulfan I	74.4	73.7	54.7	58.4	1.02		6.50
	Endosulfan II	78.6	79.6	79.5	87.9	1.24		10.1
	Endosulfan Sulfate	89.1	86.5	86.2	87.7	2.90		1.77
	Endrin	74.2	75.5	76.5	23.7	1.74		105
	Endrin Aldehyde	92.0	91.1	72.3	0.822	0.882		196
	Endrin Ketone	90.2	90.0	93.7	165	0.260		55.1
	EPTC	54.3	40.2	46.7	51.8	30.0		10.4
	Esfenvalerate	66.0	69.7	86.3	81.4	5.56		5.89
	Ethalfluralin	68.5	67.6	61.2	73.1	1.28		17.7
	Ethion	72.4	82.1	78.8	89.7	12.5		12.9
	Ethoprop	82.2	72.9	74.9	76.9	11.9		2.60
	Fenamiphos	85.9	79.9	84.5	89.7	7.22		5.93
	Fenbuconazole	99.1	97.6	101	108	1.55		6.98
	Fenpropathrin	56.4	57.8	62.1	56.2	2.48		9.87
	Fipronil	93.6	88.1	95.0	99.3	6.11		4.52
	Fipronil Desulfinyl	88.8	88.5	85.2	93.7	0.308		9.51
	Fipronil Sulfide	83.5	79.6	79.1	86.6	4.82		8.97
	Fipronil Sulfone	89.2	77.1	79.1	85.9	14.4		8.27
	Fluazifop-P-butyl	92.0	90.0	93.0	97.2	2.09		4.44
	Fludioxonil	94.1	87.3	87.0	97.0	7.52		10.9
	Flumioxazin	137	131	156	172	4.42		9.66
	Flutolanil	83.8	86.4	88.7	93.4	3.15		5.16
	Fluxapyroxad	89.8	89.2	89.8	96.7	0.644		7.31
	Fonofos	76.3	77.0	79.2	79.3	0.932		0.0820
	Gamma-BHC	102	102	95.0	95.2	0.365		0.210
	Gamma-Chlordane	64.4	65.8	68.8	77.0	2.13		11.2
	Heptachlor	59.5	58.3	70.6	84.1	2.13		17.4
	Heptachlor Epoxide	75.7	77.8	59.3	60.4	2.64		1.88
	Hexachlorobenzene	59.2	57.8	63.2	62.5	2.34		1.08
	Hexazinone	91.3	89.5	86.5	88.6	2.02		2.20
	Imazalil	77.8	89.2	90.3	109	13.7		19.1
	Iprodione	81.9	82.2	82.3	92.3	0.324		11.5
	Kepone	92.3	95.0	65.2	139	2.92		72.4
	Lambda-Cyhalothrin	73.7	76.3	102	89.7	3.51		12.5
	Malathion	86.6	75.1	76.2	83.0	14.3		8.50
	Metalaxyl	93.9	92.0	93.5	95.9	1.99		2.51
	Methoxychlor	75.8	74.7	68.0	79.8	1.52		16.0
	Metolachlor	81.2	74.3	78.8	86.8	8.83		9.68
	Metribuzin	89.4	97.1	97.4	104	8.19		6.33
	Mevinphos	78.4	69.6	65.6	70.8	11.9		7.64
	MGK-264	43.2	44.1	93.6	69.0	2.08		30.3
	Mirex	100	102	115	148	1.53		25.1
	Molinate	64.8	52.1	55.9	61.6	21.6		9.65
	Myclobutanil	91.0	87.2	88.4	95.9	4.34		8.16
	Naled	41.6	35.7	37.0	43.6	15.3		16.3

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270E	Norflurazon	97.5	92.8	97.4	98.3	4.93		0.993
	Oxadiazon	86.6	83.6	91.5	93.4	3.54		2.05
	Oxyfluorfen	101	99.7	107	110	1.45		2.82
	Parathion Ethyl	86.7	81.7	82.2	91.3	5.95		10.5
	Parathion Methyl	96.5	95.8	95.7	96.6	0.727		0.892
	Pendimethalin	83.6	85.0	90.5	93.2	1.70		3.01
	Permethrin	62.5	63.7	82.9	71.6	1.89		14.7
	Phenothrin	23.5	21.0	87.2	95.0	11.6		8.62
	Phorate	78.3	66.7	69.3	75.9	15.9		9.10
	Piperonyl Butoxide	74.9	75.0	92.1	0.440	0.116		198
	Prallethrin	29.0	30.3	57.6	52.5	4.65		9.17
	Prodiamine	49.3	35.8	40.9	83.2	31.7		68.2
	Prometon	77.1	80.6	74.6	80.4	4.42		7.45
	Prometryn	82.1	81.4	83.6	91.1	0.817		8.56
	Pronamide	94.6	82.8	82.6	93.6	13.3		12.5
	Propiconazole	89.9	87.5	93.9	94.9	2.72		1.06
	Pyriproxyfen	95.5	92.1	95.2	102	3.61		7.17
	Simazine	101	88.3	92.2	96.7	13.1		2.51
	Sulfentrazone	53.5	58.7	86.3	96.3	9.16		11.0
	Tau-Fluvalinate	47.8	49.0	67.1	58.8	2.65		13.1
	Tebuconazole	60.3	78.1	69.1	67.2	25.8		2.77
	Terbufos	77.4	71.5	75.6	80.3	7.93		6.04
	Terbuthylazine	91.1	86.8	86.6	95.8	4.85		10.1
	Tetramethrin	36.0	36.3	59.2	35.1	0.775		51.0
	Trans-Nonachlor	68.8	70.4	61.5	72.8	2.25		16.8
	Triclosan Methyl	73.5	74.3	71.3	75.1	1.04		5.28
	Trifluralin	66.9	67.6	67.4	71.1	0.997		5.35
EPA 8276	Chlordane	110	123	99.9	115	10.9		14.1
	Toxaphene	85.8	91.5	82.1	108	6.34		27.2
EPA 8321B	2,4-D	151		154	158			2.49
	2,4,5-T	138		146	150			2.47
	3-Hydroxycarbofuran	107		115	109			5.45
	Acesulfame K	99.2		64.6	69.6			7.51
	Acetaminophen	112		111	91.8			15.7
	Acetamiprid	111		115	120			4.09
	Afidopyropen	92.0		104	102			1.46
	Aldicarb	107		135	135			0.178
	Aldicarb Sulfone	109		132	123			7.17
	Aldicarb Sulfoxide	77.6		40.1	36.9			8.28
	AMPA	80.6		97.2	103			5.48
	Bentazon	44.0						16.5
	Benzovindiflupyr	83.1		100	98.5			1.66
	Carbamazepine	94.7		96.4	90.0			6.87
	Carbaryl	81.1		61.8	62.5			1.13
	Carbofuran	87.6		70.8	67.7			4.49
	Clothianidin	110		125	127			1.52
	Dinotefuran	85.9		155	156			0.803
	Diuron	78.4		73.3	56.6			25.7
	Endothall	87.2		76.8	86.7			12.0
	Fenuron	103		118	111			5.96
	Fluridone	103		120	121			0.683
	Glufosinate	81.5		95.4	93.6			1.99
	Glyphosate	98.4		76.9	76.6			0.365
	Hydrocodone	111		131	132			0.830

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8321B	Ibuprofen	77.4	102	76.7			28.5
	Imazapyr	111					4.89
	Imidacloprid	114	244	236			2.76
	Linuron	77.8	78.6	81.6			3.71
	Mandestrobin	98.6	107	110			3.57
	MCPP	158	181	184			1.32
	Methiocarb	72.8	78.0	69.4			11.7
	Methomyl	97.1	102	95.8			6.70
	Naproxen	111	89.7	99.3			10.1
	Oxamyl	103	107	102			4.64
	Primidone	103	131	119			9.53
	Propoxur	81.2	63.8	62.0			2.81
	Pyraclostrobin	76.6	98.5	99.1			0.678
	Sucralose	106	50.3	50.1			0.408
	Thiamethoxam	121	195	196			0.613
	Tolfenpyrad	49.9	66.3	70.6			6.33
	Triclopyr	150	163	152			6.93
SM 2320 B-2011	Total Alkalinity	98.6				0.610	
	Total Alkalinity	100				0.909	
SM 4500 F-C-2011	Fluoride	98.2	98.5	98.5			0.0
	Fluoride	95.9	99.5	100			0.467
SM 5310 B-2011	Organic Carbon	96.2	97.0	98.0			0.600

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2241885, 2241887
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2241912
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2241912
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2241886, 2241888
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2241886, 2241888
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2241886, 2241888
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2241886, 2241888
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2241889, 2241916
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2241900
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2241901
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2241900
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2241898
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2241899
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2241899
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2241885, 2241887
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2241885, 2241887
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2241885, 2241887
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2241886, 2241888

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	04/23/2021			04/23/2021 16:29	Yen Ta	2241885, 2241887
EPA 200.7 Rev. 4.4	04/23/2021	05/06/2021 16:40	Elliott D. Healy	05/07/2021 16:23	Betina Topolski	2241912
EPA 200.8 Rev. 5.4	04/23/2021	05/06/2021 16:40	Elliott D. Healy	05/07/2021 19:59	McKinley C Carter	2241912
	04/23/2021	05/06/2021 16:40	Elliott D. Healy	05/11/2021 05:41	Alexander Thompson	2241912
EPA 350.1 Rev. 2.0	04/23/2021			05/11/2021 14:15	Ping Hua	2241886
	04/23/2021			05/11/2021 14:16	Ping Hua	2241888
EPA 351.2 Rev. 2.0	04/23/2021	04/28/2021 13:28	Benjamin T. Nordmann	04/29/2021 15:24	Virginia P. Brown	2241886
	04/23/2021	05/04/2021 12:37	Benjamin T. Nordmann	05/05/2021 12:26	Virginia P. Brown	2241888
EPA 353.2 Rev. 2.0	04/23/2021			04/27/2021 11:12	Beverly Y. Sanders	2241886
	04/23/2021			04/27/2021 11:22	Beverly Y. Sanders	2241888
EPA 365.1 Rev. 2.0	04/23/2021	04/27/2021 11:54	Yen Ta	04/28/2021 11:53	Shengyu Ding	2241886
	04/23/2021	04/27/2021 11:54	Yen Ta	04/28/2021 11:54	Shengyu Ding	2241888
EPA 365.1 Rev. 2.0 dissolved	04/23/2021			04/23/2021 14:32	Blanca Fach	2241889
	04/23/2021			04/23/2021 14:33	Blanca Fach	2241916
EPA 8270E	04/23/2021	04/23/2021 14:00	Rasheda Ghaffari	04/27/2021 16:13	Michael Poppell	2241901
	04/23/2021	04/23/2021 14:00	Rasheda Ghaffari	05/03/2021 23:48	Michael Poppell	2241901
	04/23/2021	04/28/2021 08:00	Rasheda Ghaffari	04/30/2021 21:38	Vandana T. Nagar	2241900
EPA 8276	04/23/2021	04/28/2021 08:00	Rasheda Ghaffari	05/06/2021 10:16	Arthur Maknenko	2241900
EPA 8321B	04/23/2021	04/26/2021 09:00	Hoor Shaik	05/01/2021 07:09	Juyoung Kim	2241899
	04/23/2021	04/27/2021 11:00	Rebecca Ware	04/28/2021 11:29	Rebecca Ware	2241899
	04/23/2021	04/27/2021 11:00	Rebecca Ware	04/29/2021 04:21	Rebecca Ware	2241899
	04/23/2021	04/29/2021 09:00	Hoor Shaik	05/02/2021 01:37	Juyoung Kim	2241898
SM 2320 B-2011	04/23/2021			04/28/2021 22:10	Dale L. Simmons	2241885
	04/23/2021			04/28/2021 23:41	Dale L. Simmons	2241887
SM 2540 D-2011	04/23/2021			04/27/2021 15:21	Yijie Li	2241885, 2241887
SM 4500 F-C-2011	04/23/2021			04/28/2021 22:10	Dale L. Simmons	2241885
	04/23/2021			04/28/2021 23:41	Dale L. Simmons	2241887
SM 5310 B-2011	04/23/2021			04/27/2021 03:53	Lauren Lees	2241886
	04/23/2021			04/27/2021 04:03	Lauren Lees	2241888