

Chemical Analysis Report

SO-DIST-2023-01-18-01

Florida DEP Laboratory
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DOH Accreditation E31780

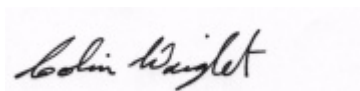
Event Description: **2023 SMP: SARASOTA**
Request ID: **RQ-2023-01-16-18**
Customer: **SO-DIST**
Project ID: **SMP**

Send Reports to:
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FLDEP South District Office
2295 Victoria Ave. Suite 314
Fort Myers, FL 33901-3381
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Certified by: Colin Wright, Program Administrator

Date Certified: 02-FEB-2023 08:39



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 group are included in this report: 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: MATHENY CREEK @ BENEVA RD

Collection Date/Time: 01/17/2023 09:00

Field ID: G3SD0092

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2381366	EPA 8321B	2,4-D	0.050		ug/L	P424685	
		Acesulfame K	0.28	I	ug/L	P424658	
		2,4,5-T	0.0040	U	ug/L	P424685	
		AMPA	0.48		ug/L	P424658	
		Acetaminophen	0.0080	U	ug/L	P424685	
		Acetamiprid	0.0020	U	ug/L	P424685	
		Endothall	0.25	U	ug/L	P424658	
		Glufosinate	0.10	U	ug/L	P424658	
		Glyphosate	2.1		ug/L	P424658	
		Afidopyropen	0.0020	U	ug/L	P424685	
		Bentazon	0.012		ug/L	P424685	
		Sucralose	0.29		ug/L	P424658	
		Benzovindiflupyr	0.0020	U	ug/L	P424685	
		Carbamazepine	8.0E-04	U	ug/L	P424685	
		Clothianidin	0.0020	U	ug/L	P424685	
		Dinotefuran	0.0020	U	ug/L	P424685	
		Diuron	0.0020	U	ug/L	P424685	
		Fenuron	0.032	U	ug/L	P424685	
		Fluridone	0.045		ug/L	P424685	
		Imazapyr	0.49		ug/L	P424685	
		Hydrocodone	0.0020	U	ug/L	P424685	
		Ibuprofen	0.080	U	ug/L	P424685	
		Imidacloprid	0.0069	I	ug/L	P424685	
		Linuron	0.0040	U	ug/L	P424685	
		Mandestrobin	0.0020	U	ug/L	P424685	
		MCPP	0.0020	U	ug/L	P424685	
		Naproxen	0.0080	U	ug/L	P424685	
		Primidone	0.0040	U	ug/L	P424685	
		Pyraclostrobin	0.0020	U	ug/L	P424685	
		Silvex	0.0040	U	ug/L	P424685	
		Thiamethoxam	0.0020	U	ug/L	P424685	
		Tolfenpyrad	0.0020	U	ug/L	P424685	
		Triclopyr	0.0040	U	ug/L	P424685	

Sample Location: NORTH CREEK (TIDAL) @ US 41

Collection Date/Time: 01/17/2023 09:20

Field ID: G3SD0089

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2381367	EPA 8321B	2,4-D	0.20		ug/L	P424685	
		Acesulfame K	0.18	I	ug/L	P424658	
		2,4,5-T	0.0040	U	ug/L	P424685	
		AMPA	0.26	I	ug/L	P424658	
		Acetaminophen	0.0080	U	ug/L	P424685	
		Acetamiprid	0.0020	U	ug/L	P424685	
		Endothall	0.25	U	ug/L	P424658	
		Glufosinate	0.10	U	ug/L	P424658	
		Glyphosate	2.1		ug/L	P424658	
		Afidopyropen	0.0020	U	ug/L	P424685	
		Bentazon	0.026		ug/L	P424685	
		Sucralose	0.97		ug/L	P424658	
		Benzovindiflupyr	0.0020	U	ug/L	P424685	
		Carbamazepine	8.0E-04	U	ug/L	P424685	
		Clothianidin	0.0060	I	ug/L	P424685	
		Dinotefuran	0.0020	U	ug/L	P424685	
		Diuron	0.0071	I	ug/L	P424685	
		Fenuron	0.032	U	ug/L	P424685	
		Fluridone	0.037		ug/L	P424685	
		Imazapyr	0.25		ug/L	P424685	
		Hydrocodone	0.0020	U	ug/L	P424685	
		Ibuprofen	0.080	U	ug/L	P424685	
		Imidacloprid	0.014		ug/L	P424685	
		Linuron	0.0040	U	ug/L	P424685	
		Mandestrobin	0.0020	U	ug/L	P424685	
		MCPP	0.0020	U	ug/L	P424685	
		Naproxen	0.0080	U	ug/L	P424685	
		Primidone	0.0070	I	ug/L	P424685	
		Pyraclostrobin	0.0020	U	ug/L	P424685	
		Silvex	0.0040	U	ug/L	P424685	
		Thiamethoxam	0.0020	U	ug/L	P424685	
		Tolfenpyrad	0.0020	U	ug/L	P424685	
		Triclopyr	0.0040	U	ug/L	P424685	

Sample Location: North Creek by Oaks Creek Ct.

Collection Date/Time: 01/17/2023 09:40

Field ID: G3SD0064

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2381368	EPA 8321B	2,4-D	0.0031	I	ug/L	P424846	
		Acesulfame K	0.19	I	ug/L	P424658	
		2,4,5-T	0.0040	U	ug/L	P424846	
		AMPA	0.10	U	ug/L	P424658	
		Acetaminophen	0.0080	U	ug/L	P424846	
		Acetamiprid	0.0020	U	ug/L	P424846	
		Endothall	0.25	U	ug/L	P424658	
		Glufosinate	0.10	U	ug/L	P424658	
		Glyphosate	0.37	I	ug/L	P424658	
		Afidopyropen	0.0020	U	ug/L	P424846	
		Bentazon	0.040		ug/L	P424846	
		Sucralose	0.86		ug/L	P424658	
		Benzovindiflupyr	0.0020	U	ug/L	P424846	
		Carbamazepine	8.0E-04	U	ug/L	P424846	
		Clothianidin	0.0092		ug/L	P424846	
		Dinotefuran	0.0020	U	ug/L	P424846	
		Diuron	0.0020	U	ug/L	P424846	
		Fenuron	0.032	U	ug/L	P424846	
		Fluridone	0.11		ug/L	P424846	
		Imazapyr	0.14		ug/L	P424846	
		Hydrocodone	0.0020	U	ug/L	P424846	
		Ibuprofen	0.080	U	ug/L	P424846	
		Imidacloprid	0.010		ug/L	P424846	MS
		Linuron	0.0040	U	ug/L	P424846	
		Mandestrobin	0.0020	U	ug/L	P424846	
		MCPP	0.0020	U	ug/L	P424846	
		Naproxen	0.0080	U	ug/L	P424846	
		Primidone	0.0057	I	ug/L	P424846	
		Pyraclostrobin	0.0020	U	ug/L	P424846	
		Silvex	0.0040	U	ug/L	P424846	
		Thiamethoxam	0.0020	U	ug/L	P424846	
		Tolfenpyrad	0.0020	U	ug/L	P424846	
		Triclopyr	0.0040	U	ug/L	P424846	

Ref. Method and Comment:

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

Sample Location: South Creek near Legacy

Collection Date/Time: 01/17/2023 10:10

Field ID: G3SD0183

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2381365	EPA 8270E	Aldrin	0.67	U	ng/L	P424717	
		Alpha-BHC	0.10	U	ng/L	P424717	
		Alpha-Chlordane	0.21	U	ng/L	P424717	
		PCB-1016	2.0	UQ	ng/L	P425033	
		Beta-BHC	0.10	U	ng/L	P424717	
		PCB-1221	2.0	UQ	ng/L	P425033	
		Beta-Cyfluthrin	1.3	U	ng/L	P424717	
		PCB-1232	2.0	UQ	ng/L	P425033	
		Bifenthrin	0.51	U	ng/L	P424717	
		PCB-1242	2.0	UQ	ng/L	P425033	
		Carbophenothion	0.92	U	ng/L	P424717	
		PCB-1248	2.0	UQ	ng/L	P425033	
		Chlorothalonil	3.7	U	ng/L	P424717	
		PCB-1254	2.0	UQ	ng/L	P425033	
		Cis-Nonachlor	0.21	U	ng/L	P424717	
		PCB-1260	2.0	UQ	ng/L	P425033	
		Cypermethrin	1.5	U	ng/L	P424717	
		Dacthal	0.15	U	ng/L	P424717	
		DDD-p,p'	0.26	U	ng/L	P424717	
		DDE-p,p'	0.21	U	ng/L	P424717	
		DDT-p,p'	0.26	U	ng/L	P424717	
		Delta-BHC	0.41	U	ng/L	P424717	
		Deltamethrin	1.3	U	ng/L	P424717	
		Dichlobenil	0.26	U	ng/L	P424717	
		Dicofol	1.3	U	ng/L	P424717	
		Dieldrin	0.41	U	ng/L	P424717	
		Endosulfan I	0.41	U	ng/L	P424717	
		Endosulfan II	0.41	U	ng/L	P424717	
		Endosulfan Sulfate	0.31	U	ng/L	P424717	
		Endrin	0.41	U	ng/L	P424717	
		Endrin Aldehyde	0.77	UJ	ng/L	P424717	LCS
		Endrin Ketone	0.41	U	ng/L	P424717	RPD
		Esfenvalerate	0.77	U	ng/L	P424717	
		Ethalfuralin	0.15	U	ng/L	P424717	
		Fenpropathrin	0.26	U	ng/L	P424717	
		Gamma-BHC	0.13	U	ng/L	P424717	
		Gamma-Chlordane	0.21	U	ng/L	P424717	
		Heptachlor	0.21	U	ng/L	P424717	
		Heptachlor Epoxide	0.26	U	ng/L	P424717	
		Hexachlorobenzene**	1.0	U	ng/L	P424717	
		Kepone	5.1	U	ng/L	P424717	
		Lambda-Cyhalothrin	0.77	U	ng/L	P424717	
		Methoprene	0.77	U	ng/L	P424717	
		Methoxychlor	0.31	U	ng/L	P424717	

Field ID: G3SD0183

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2381365	EPA 8270E	MGK-264	0.21	U	ng/L	P424717	
		Mirex	0.36	U	ng/L	P424717	
		Oxychlordane	0.31	U	ng/L	P424717	
		Permethrin	1.6	U	ng/L	P424717	
		Phenothrin	0.92	U	ng/L	P424717	
		Piperonyl Butoxide	0.15	U	ng/L	P424717	
		Prallethrin	2.1	U	ng/L	P424717	
		Tau-Fluvalinate	0.26	U	ng/L	P424717	
		Tetramethrin	0.77	U	ng/L	P424717	
		Trans-Nonachlor	0.21	U	ng/L	P424717	
		Triclosan Methyl	0.15	U	ng/L	P424717	
		Trifluralin	0.21	U	ng/L	P424717	
	EPA 8276	Chlordane	2.1	U	ng/L	P424717	
		Toxaphene	15	U	ng/L	P424717	

Ref. Method and Comment:
EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8270E: Insufficient sample available to perform duplicate matrix spikes. Sample expired for preparation due to need for re-extraction.

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P424717

Component	Result	Code	Units
Aldrin	0.65	U	ng/L
Aldrin	0.65	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Bifenthrin	0.50	U	ng/L
Bifenthrin	0.50	U	ng/L
Carbophenothion	0.90	U	ng/L
Carbophenothion	0.90	U	ng/L
Chlorothalonil	3.6	U	ng/L
Chlorothalonil	3.6	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cypermethrin	1.5	U	ng/L
Cypermethrin	1.5	U	ng/L
Dacthal	0.15	U	ng/L
Dacthal	0.15	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDT-p,p'	0.25	U	ng/L
DDT-p,p'	0.25	U	ng/L
Delta-BHC	0.40	U	ng/L
Delta-BHC	0.40	U	ng/L
Deltamethrin	1.2	U	ng/L
Deltamethrin	1.2	U	ng/L
Dichlobenil	0.25	U	ng/L
Dichlobenil	0.25	U	ng/L
Dicofol	1.2	U	ng/L
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.40	U	ng/L
Endrin	0.40	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Ketone	0.40	U	ng/L
Endrin Ketone	0.40	U	ng/L
Esfenvalerate	0.75	U	ng/L
Esfenvalerate	0.75	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P424717

Component	Result	Code	Units
Ethalfuralin	0.15	U	ng/L
Ethalfuralin	0.15	U	ng/L
Fenpropathrin	0.25	U	ng/L
Fenpropathrin	0.25	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Kepone	5.0	U	ng/L
Kepone	5.0	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoxychlor	0.30	U	ng/L
Methoxychlor	0.30	U	ng/L
MGK-264	0.20	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.35	U	ng/L
Mirex	0.35	U	ng/L
Oxychlordane	0.30	U	ng/L
Oxychlordane	0.30	U	ng/L
Permethrin	1.6	U	ng/L
Permethrin	1.6	U	ng/L
Phenothrin	0.90	U	ng/L
Phenothrin	0.90	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Prallethrin	2.0	U	ng/L
Prallethrin	2.0	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tetramethrin	0.75	U	ng/L
Tetramethrin	0.75	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Trifluralin	0.20	U	ng/L
Trifluralin	0.20	U	ng/L

Reference Method: EPA 8270E

Batch ID: P425033

Component	Result	Code	Units
PCB-1016	2.0	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P425033

Component	Result	Code	Units
PCB-1016	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1242	2.0	U	ng/L
PCB-1242	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1254	2.0	U	ng/L
PCB-1254	2.0	U	ng/L
PCB-1260	2.0	U	ng/L
PCB-1260	2.0	U	ng/L

Reference Method: EPA 8276
Batch ID: P424717

Component	Result	Code	Units
Chlordane	2.0	U	ng/L
Chlordane	2.0	U	ng/L
Toxaphene	15	U	ng/L
Toxaphene	15	U	ng/L

Reference Method: EPA 8321B
Batch ID: P424658

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: P424685

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	0.032	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B

Batch ID: P424685

Component	Result	Code	Units
Ibuprofen	0.080	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
Silvex	0.0040	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: P424846

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	0.032	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.080	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
Silvex	0.0040	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P424717

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	54.5		P	10 - 92.0
Alpha-BHC	80.1		P	75 - 107
Alpha-Chlordane	78.1		P	50 - 108
Beta-BHC	88.8		P	36 - 138
Beta-Cyfluthrin	73.5		P	20 - 161
Bifenthrin	66.9		P	10 - 119
Carbophenothion	66.1		P	19 - 94.0
Chlorothalonil	87.1		P	26 - 186
Cis-Nonachlor	53.0		P	42 - 119
Cypermethrin	64.3		P	22 - 150
Dacthal	80.1		P	72 - 119
DDD-p,p'	75.9		P	45 - 107
DDE-p,p'	69.8		P	48 - 106
DDT-p,p'	65.9		P	48 - 110
Delta-BHC	102		P	54 - 140
Deltamethrin	103		P	22 - 189
Dichlobenil	65.2		P	36 - 117
Dicofol	54.4		P	46 - 155
Dieldrin	72.3		P	54 - 110
Endosulfan I	73.8		P	59 - 105
Endosulfan II	82.0		P	51 - 118
Endosulfan Sulfate	100		P	57 - 121
Endrin	75.8		P	10 - 120
Endrin Aldehyde	24.2		F	34 - 118
Endrin Ketone	148		P	69 - 177
Esfenvalerate	91.5		P	23 - 168
Ethalfuralin	65.9		P	49 - 99.0
Fenpropathrin	74.2		P	34 - 117
Gamma-BHC	79.3		P	72 - 117
Gamma-Chlordane	78.9		P	43 - 106
Heptachlor	65.9		P	41 - 98.0
Heptachlor Epoxide	72.7		P	57 - 106
Hexachlorobenzene	68.4		P	36 - 99.0
Kepone	153		P	16 - 215
Lambda-Cyhalothrin	63.5		P	21 - 177
Methoprene	63.6		P	10 - 119
Methoxychlor	84.7		P	60 - 112
MGK-264	77.3		P	26 - 122
Mirex	58.6		P	10 - 169
Oxychlordane	71.0		P	43 - 105
Permethrin	73.9		P	24 - 148
Phenothrin	56.7		P	10 - 106
Piperonyl Butoxide	138		P	10 - 139
Prallethrin	80.8		P	17 - 109
Tau-Fluvalinate	78.4		P	13 - 131
Tetramethrin	100		P	10 - 132
Trans-Nonachlor	68.5		P	44 - 106
Triclosan Methyl	88.2		P	59 - 109
Trifluralin	68.8		P	44 - 101

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P425033

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
PCB-1016	97.3	101	P/P	48 - 112
PCB-1260	109	117	P/P	44 - 118

Reference Method: EPA 8276
Batch ID: P424717

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	91.1		P	61 - 116
Toxaphene	99.3		P	48 - 124

Reference Method: EPA 8321B
Batch ID: P424658

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	113		P	40 - 150
AMPA	94.6		P	40 - 150
Endothall	93.6		P	40 - 150
Glufosinate	113		P	40 - 150
Glyphosate	109		P	40 - 150
Sucralose	82.2		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P424685

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	120		P	40 - 150
2,4,5-T	94.7		P	40 - 150
Acetaminophen	84.4		P	30 - 150
Acetamiprid	80.5		P	40 - 150
Afidopyropen	51.3		P	30 - 150
Bentazon	66.6		P	30 - 150
Benzovindiflupyr	78.1		P	40 - 150
Carbamazepine	65.2		P	40 - 150
Clothianidin	93.9		P	40 - 150
Dinotefuran	96.8		P	40 - 150
Diuron	47.5		P	40 - 150
Fenuron	101		P	40 - 150
Fluridone	70.4		P	40 - 150
Hydrocodone	87.6		P	40 - 150
Ibuprofen	79.2		P	40 - 150
Imazapyr	83.1		P	40 - 150
Imidacloprid	104		P	40 - 150
Linuron	53.7		P	40 - 150
Mandestrobin	73.2		P	40 - 150
MCPP	112		P	40 - 150
Naproxen	82.4		P	40 - 150
Primidone	86.0		P	40 - 150
Pyraclostrobin	66.7		P	40 - 150
Silvex	85.3		P	40 - 150
Thiamethoxam	82.8		P	40 - 150
Tolfenpyrad	39.4		P	30 - 150
Triclopyr	84.0		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P424846

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	80.2		P	40 - 150
2,4,5-T	68.8		P	40 - 150
Acetaminophen	80.2		P	30 - 150
Acetamiprid	90.9		P	40 - 150
Afidopyropen	55.5		P	30 - 150
Bentazon	74.9		P	30 - 150
Benzovindiflupyr	81.4		P	40 - 150
Carbamazepine	68.5		P	40 - 150
Clothianidin	93.5		P	40 - 150
Dinotefuran	97.8		P	40 - 150
Diuron	67.5		P	40 - 150
Fenuron	91.5		P	40 - 150
Fluridone	75.0		P	40 - 150
Hydrocodone	108		P	40 - 150
Ibuprofen	86.6		P	40 - 150
Imazapyr	106		P	40 - 150
Imidacloprid	90.0		P	40 - 150
Linuron	71.3		P	40 - 150
Mandestrobin	80.1		P	40 - 150
MCPP	89.1		P	40 - 150
Naproxen	85.1		P	40 - 150
Primidone	111		P	40 - 150
Pyraclostrobin	59.8		P	40 - 150
Silvex	61.3		P	40 - 150
Thiamethoxam	94.9		P	40 - 150
Tolfenpyrad	42.7		P	30 - 150
Triclopyr	65.5		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P424717

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2381752	Aldrin	44.7	46.4	P/P	20 - 82.0
2381752	Alpha-BHC	79.4	84.9	P/P	71 - 109
2381752	Alpha-Chlordane	71.1	76.9	P/P	42 - 106
2381752	Beta-BHC	78.0	77.8	P/P	69 - 180
2381752	Beta-Cyfluthrin	85.4	90.6	P/P	18 - 175
2381752	Bifenthrin	79.9	73.1	P/P	21 - 128
2381752	Carbophenothion	63.6	65.2	P/P	10 - 126
2381752	Chlorothalonil	107	98.4	P/P	10 - 300
2381752	Cis-Nonachlor	51.3	46.1	P/P	34 - 106
2381752	Cypermethrin	69.0	72.2	P/P	22 - 158
2381752	Dacthal	72.9	74.6	P/P	54 - 116
2381752	DDD-p,p'	69.2	74.4	P/P	34 - 107
2381752	DDE-p,p'	64.1	66.8	P/P	33 - 110
2381752	DDT-p,p'	60.4	61.5	P/P	50 - 122
2381752	Delta-BHC	88.9	91.9	P/P	77 - 193
2381752	Deltamethrin	117	118	P/P	10 - 195
2381752	Dichlobenil	50.5	54.1	P/P	25 - 113
2381752	Dicofol	60.3	60.2	P/P	38 - 247
2381752	Dieldrin	67.7	69.9	P/P	45 - 118
2381752	Endosulfan I	60.9	62.2	P/P	51 - 106
2381752	Endosulfan II	70.8	74.0	P/P	37 - 122
2381752	Endosulfan Sulfate	97.3	90.1	P/P	43 - 132
2381752	Endrin	68.1	71.2	P/P	29 - 101
2381752	Endrin Aldehyde	51.0	45.7	P/P	19 - 110
2381752	Endrin Ketone	89.6	137	P/P	60 - 140
2381752	Esfenvalerate	117	118	P/P	26 - 199
2381752	Ethalfuralin	59.8	60.4	P/P	45 - 99.0
2381752	Fenpropathrin	68.6	76.5	P/P	35 - 120
2381752	Gamma-BHC	69.3	72.3	P/P	63 - 128
2381752	Gamma-Chlordane	75.0	75.6	P/P	40 - 104
2381752	Heptachlor	55.1	57.6	P/P	36 - 97.0
2381752	Heptachlor Epoxide	61.5	65.5	P/P	49 - 184
2381752	Hexachlorobenzene	59.7	61.4	P/P	39 - 96.0
2381752	Kepone	134	139	P/P	10 - 217
2381752	Lambda-Cyhalothrin	80.3	81.8	P/P	21 - 193
2381752	Methoprene	74.1	77.6	P/P	20 - 106
2381752	Methoxychlor	88.3	80.2	P/P	53 - 118
2381752	MGK-264	73.4	76.3	P/P	40 - 118
2381752	Mirex	50.9	54.3	P/P	26 - 92.0
2381752	Oxychlordane	60.0	65.2	P/P	44 - 99.0
2381752	Permethrin	68.4	72.5	P/P	33 - 182
2381752	Phenothrin	68.1	72.7	P/P	10 - 129
2381752	Piperonyl Butoxide	87.7	90.3	P/P	10 - 211
2381752	Prallethrin	88.2	88.0	P/P	24 - 113
2381752	Tau-Fluvalinate	107	111	P/P	14 - 149
2381752	Tetramethrin	107	103	P/P	17 - 151
2381752	Trans-Nonachlor	60.9	60.9	P/P	42 - 102
2381752	Triclosan Methyl	75.6	77.6	P/P	48 - 108
2381752	Trifluralin	61.8	60.1	P/P	47 - 96.0

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P425033

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2382133	PCB-1016	87.5		P	46 - 111
2382133	PCB-1260	98.7		P	45 - 114

Reference Method: EPA 8276
Batch ID: P424717

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2381365	Chlordane	91.9	93.2	P/P	53 - 126
2381365	Toxaphene	112	112	P/P	56 - 211

Reference Method: EPA 8321B
Batch ID: P424658

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2381366	Acesulfame K	121	131	P/P	40 - 150
2381366	AMPA	54.4	43.8	P/P	40 - 150
2381366	Endothall	110	115	P/P	40 - 150
2381366	Glufosinate	76.4	64.7	P/P	40 - 150
2381366	Glyphosate	82.2	64.2	P/P	40 - 150
2381366	Sucralose	73.6	72.0	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P424685

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2380979	2,4-D	150	119	P/P	40 - 150
2380979	2,4,5-T	116	95.9	P/P	40 - 150
2380979	Acetaminophen	91.8	88.2	P/P	30 - 150
2380979	Acetamiprid	106	102	P/P	40 - 150
2380979	Afidopyropen	71.8	67.5	P/P	30 - 150
2380979	Bentazon	61.7	68.2	P/P	30 - 150
2380979	Benzovindiflupyr	77.0	77.5	P/P	40 - 150
2380979	Carbamazepine	65.0	79.5	P/P	40 - 150
2380979	Clothianidin	99.5	98.5	P/P	40 - 150
2380979	Dinotefuran	116	104	P/P	40 - 150
2380979	Diuron	46.5	59.8	P/P	40 - 150
2380979	Fenuron	94.1	95.5	P/P	40 - 150
2380979	Fluridone	74.3	78.2	P/P	40 - 150
2380979	Hydrocodone	96.1	92.7	P/P	40 - 150
2380979	Ibuprofen	77.3	85.7	P/P	40 - 150
2380979	Imazapyr	103	88.1	P/P	40 - 150
2380979	Imidacloprid	125	107	P/P	40 - 150
2380979	Linuron	51.8	60.2	P/P	40 - 150
2380979	Mandestrobin	83.2	78.3	P/P	40 - 150
2380979	MCCP	131	112	P/P	40 - 150
2380979	Naproxen	63.7	74.3	P/P	40 - 150
2380979	Primidone	94.6	96.9	P/P	40 - 150
2380979	Pyraclostrobin	62.0	62.3	P/P	40 - 150
2380979	Silvex	86.8	87.2	P/P	40 - 150
2380979	Thiamethoxam	89.7	92.2	P/P	40 - 150
2380979	Tolfenpyrad	36.6	31.5	P/P	30 - 150
2380979	Triclopyr	110	98.8	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P424846

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2381541	2,4-D	95.4	83.9	P/P	40 - 150
2381541	2,4,5-T	94.8	103	P/P	40 - 150
2381541	Acetaminophen	89.6	98.5	P/P	30 - 150
2381541	Acetamiprid	99.4	93.1	P/P	40 - 150
2381541	Afidopyropen	78.8	76.7	P/P	30 - 150
2381541	Benzovindiflupyr	72.3	83.6	P/P	40 - 150
2381541	Carbamazepine	56.8	56.9	P/P	40 - 150
2381541	Clothianidin	105	109	P/P	40 - 150
2381541	Dinotefuran	120	126	P/P	40 - 150
2381541	Diuron	42.3	49.7	P/P	40 - 150
2381541	Fenuron	69.7	74.8	P/P	40 - 150
2381541	Fluridone	68.9	73.0	P/P	40 - 150
2381541	Hydrocodone	106	107	P/P	40 - 150
2381541	Ibuprofen	56.8	72.3	P/P	40 - 150
2381541	Imidacloprid	158	168	F/F	40 - 150
2381541	Linuron	81.9	94.5	P/P	40 - 150
2381541	Mandestrobin	78.6	81.9	P/P	40 - 150
2381541	MCPP	102	108	P/P	40 - 150
2381541	Naproxen	96.3	82.9	P/P	40 - 150
2381541	Primidone	119	123	P/P	40 - 150
2381541	Pyraclostrobin	76.0	76.9	P/P	40 - 150
2381541	Silvex	74.5	86.3	P/P	40 - 150
2381541	Thiamethoxam	110	112	P/P	40 - 150
2381541	Tolfenpyrad	55.2	56.1	P/P	30 - 150
2381541	Triclopyr	96.9	95.1	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P424717

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2381752	Aldrin	3.66	Spike	P	0 - 41
2381752	Alpha-BHC	6.76	Spike	P	0 - 25
2381752	Alpha-Chlordane	7.86	Spike	P	0 - 33
2381752	Beta-BHC	0.281	Spike	P	0 - 36
2381752	Beta-Cyfluthrin	5.85	Spike	P	0 - 42
2381752	Bifenthrin	8.87	Spike	P	0 - 53
2381752	Carbophenothion	2.50	Spike	P	0 - 49
2381752	Chlorothalonil	8.35	Spike	P	0 - 71
2381752	Cis-Nonachlor	10.5	Spike	P	0 - 29
2381752	Cypermethrin	4.60	Spike	P	0 - 40
2381752	Dacthal	2.23	Spike	P	0 - 26
2381752	DDD-p,p'	7.28	Spike	P	0 - 39
2381752	DDE-p,p'	4.07	Spike	P	0 - 33
2381752	DDT-p,p'	1.76	Spike	P	0 - 40
2381752	Delta-BHC	3.27	Spike	P	0 - 37
2381752	Deltamethrin	1.54	Spike	P	0 - 100
2381752	Dichlobenil	6.82	Spike	P	0 - 40
2381752	Dicofol	0.124	Spike	P	0 - 31
2381752	Dieldrin	3.03	Spike	P	0 - 27
2381752	Endosulfan I	2.12	Spike	P	0 - 23
2381752	Endosulfan II	4.41	Spike	P	0 - 28
2381752	Endosulfan Sulfate	7.71	Spike	P	0 - 38
2381752	Endrin	4.50	Spike	P	0 - 63
2381752	Endrin Aldehyde	11.0	Spike	P	0 - 60
2381752	Endrin Ketone	42.0	Spike	F	0 - 37
2381752	Esfenvalerate	1.02	Spike	P	0 - 52
2381752	Ethalfuralin	0.967	Spike	P	0 - 23
2381752	Fenpropathrin	10.9	Spike	P	0 - 32
2381752	Gamma-BHC	4.27	Spike	P	0 - 17
2381752	Gamma-Chlordane	0.810	Spike	P	0 - 40
2381752	Heptachlor	4.43	Spike	P	0 - 29
2381752	Heptachlor Epoxide	6.29	Spike	P	0 - 25
2381752	Hexachlorobenzene	2.70	Spike	P	0 - 36
2381752	Kepone	3.92	Spike	P	0 - 93
2381752	Lambda-Cyhalothrin	1.77	Spike	P	0 - 55
2381752	Methoprene	4.72	Spike	P	0 - 53
2381752	Methoxychlor	9.63	Spike	P	0 - 29
2381752	MGK-264	3.92	Spike	P	0 - 35
2381752	Mirex	6.47	Spike	P	0 - 46
2381752	Oxychlordane	8.38	Spike	P	0 - 29
2381752	Permethrin	5.82	Spike	P	0 - 44
2381752	Phenothrin	6.46	Spike	P	0 - 56
2381752	Piperonyl Butoxide	2.93	Spike	P	0 - 100
2381752	Prallethrin	0.159	Spike	P	0 - 42
2381752	Tau-Fluvalinate	4.13	Spike	P	0 - 54
2381752	Tetramethrin	4.12	Spike	P	0 - 51
2381752	Trans-Nonachlor	0.0590	Spike	P	0 - 37
2381752	Triclosan Methyl	2.55	Spike	P	0 - 31
2381752	Trifluralin	2.69	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P425033

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	PCB-1016	3.97	LCS	P	0 - 24
LFB	PCB-1260	7.10	LCS	P	0 - 29

Reference Method: EPA 8276
Batch ID: P424717

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2381365	Chlordane	1.33	Spike	P	0 - 25
2381365	Toxaphene	0.245	Spike	P	0 - 26

Reference Method: EPA 8321B
Batch ID: P424658

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2381366	Acesulfame K	7.71	Spike	P	0 - 30
2381366	AMPA	15.6	Spike	P	0 - 30
2381366	Endothall	4.39	Spike	P	0 - 30
2381366	Glufosinate	16.6	Spike	P	0 - 30
2381366	Glyphosate	11.6	Spike	P	0 - 30
2381366	Sucralose	1.98	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P424685

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2380979	2,4-D	23.3	Spike	P	0 - 30
2380979	2,4,5-T	18.9	Spike	P	0 - 30
2380979	Acetaminophen	3.94	Spike	P	0 - 30
2380979	Acetamiprid	4.14	Spike	P	0 - 30
2380979	Afidopyropen	6.15	Spike	P	0 - 30
2380979	Bentazon	10.0	Spike	P	0 - 30
2380979	Benzovindiflupyr	0.718	Spike	P	0 - 30
2380979	Carbamazepine	20.2	Spike	P	0 - 30
2380979	Clothianidin	0.979	Spike	P	0 - 30
2380979	Dinotefuran	10.8	Spike	P	0 - 30
2380979	Diuron	25.0	Spike	P	0 - 30
2380979	Fenuron	1.53	Spike	P	0 - 30
2380979	Fluridone	5.09	Spike	P	0 - 30
2380979	Hydrocodone	3.52	Spike	P	0 - 30
2380979	Ibuprofen	10.4	Spike	P	0 - 30
2380979	Imazapyr	14.3	Spike	P	0 - 30
2380979	Imidacloprid	15.2	Spike	P	0 - 30
2380979	Linuron	15.0	Spike	P	0 - 30
2380979	Mandestrobin	6.10	Spike	P	0 - 30
2380979	MCPP	15.5	Spike	P	0 - 30
2380979	Naproxen	15.4	Spike	P	0 - 30
2380979	Primidone	2.41	Spike	P	0 - 30
2380979	Pyraclostrobin	0.484	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P424685

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2380979	Silvex	0.421	Spike	P	0 - 30
2380979	Thiamethoxam	2.79	Spike	P	0 - 30
2380979	Tolfenpyrad	14.9	Spike	P	0 - 30
2380979	Triclopyr	10.6	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P424846

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2381541	2,4-D	11.9	Spike	P	0 - 30
2381541	2,4,5-T	8.74	Spike	P	0 - 30
2381541	Acetaminophen	9.43	Spike	P	0 - 30
2381541	Acetamiprid	6.55	Spike	P	0 - 30
2381541	Afidopyropen	2.74	Spike	P	0 - 30
2381541	Bentazon	10.6	Spike	P	0 - 30
2381541	Benzovindiflupyr	14.5	Spike	P	0 - 30
2381541	Carbamazepine	0.138	Spike	P	0 - 30
2381541	Clothianidin	4.13	Spike	P	0 - 30
2381541	Dinotefuran	5.30	Spike	P	0 - 30
2381541	Diuron	9.24	Spike	P	0 - 30
2381541	Fenuron	7.16	Spike	P	0 - 30
2381541	Fluridone	3.18	Spike	P	0 - 30
2381541	Hydrocodone	1.59	Spike	P	0 - 30
2381541	Ibuprofen	24.1	Spike	P	0 - 30
2381541	Imazapyr	9.40	Spike	P	0 - 30
2381541	Imidacloprid	5.78	Spike	P	0 - 30
2381541	Linuron	14.3	Spike	P	0 - 30
2381541	Mandestrobin	4.13	Spike	P	0 - 30
2381541	MCPP	6.01	Spike	P	0 - 30
2381541	Naproxen	14.9	Spike	P	0 - 30
2381541	Primidone	3.17	Spike	P	0 - 30
2381541	Pyraclostrobin	1.15	Spike	P	0 - 30
2381541	Silvex	14.7	Spike	P	0 - 30
2381541	Thiamethoxam	1.83	Spike	P	0 - 30
2381541	Tolfenpyrad	1.59	Spike	P	0 - 30
2381541	Triclopyr	1.87	Spike	P	0 - 30

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

Quality Assurance Report Surrogates

Lab Sample ID: 2381365
Field Sample ID: G3SD0183

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	109	P	29 - 130
EPA 8270E	Decachlorobiphenyl	56.0	P	30 - 118
EPA 8270E	Tetrachloro-m-xylene	65.5	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	55.9	P	30 - 97.0
EPA 8276	Decachlorobiphenyl	56.9	P	30 - 101
EPA 8276	PCNB	81.3	P	48 - 121

Lab Sample ID: 2381366
Field Sample ID: G3SD0092

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	82.7	P	30 - 160
EPA 8321B	Acetaminophen-d4	96.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	43.4	P	30 - 160
EPA 8321B	Diuron-d6	36.4	P	30 - 160
EPA 8321B	Endothall-d6	108	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	71.0	P	30 - 160
EPA 8321B	Ibuprofen-d3	42.1	P	30 - 160
EPA 8321B	Primidone-d5	79.7	P	30 - 160
EPA 8321B	Sucralose-d6	72.3	P	30 - 160

Lab Sample ID: 2381367
Field Sample ID: G3SD0089

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	89.2	P	30 - 160
EPA 8321B	Acetaminophen-d4	96.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	45.7	P	30 - 160
EPA 8321B	Diuron-d6	36.9	P	30 - 160
EPA 8321B	Endothall-d6	101	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	44.0	P	30 - 160
EPA 8321B	Ibuprofen-d3	46.2	P	30 - 160
EPA 8321B	Primidone-d5	78.5	P	30 - 160
EPA 8321B	Sucralose-d6	73.2	P	30 - 160

Lab Sample ID: 2381368
Field Sample ID: G3SD0064

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	87.1	P	30 - 160
EPA 8321B	Acetaminophen-d4	93.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	56.7	P	30 - 160
EPA 8321B	Diuron-d6	52.8	P	30 - 160
EPA 8321B	Endothall-d6	103	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	62.7	P	30 - 160
EPA 8321B	Ibuprofen-d3	75.0	P	30 - 160
EPA 8321B	Primidone-d5	110	P	30 - 160
EPA 8321B	Sucralose-d6	72.9	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A116987

Included Lab Sample IDs: 2381366, 2381367, 2381368

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	112	99.9	P/P	60 - 160
Acesulfame K	99.9	102	P/P	60 - 160
Sucralose	77.8	78.3	P/P	60 - 160
Sucralose	78.3	79.9	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A117005

Included Lab Sample IDs: 2381366, 2381367, 2381368

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	95.6	99.9	P/P	60 - 160
AMPA	98.2	95.6	P/P	60 - 160
Endothall	93.7	96.8	P/P	60 - 160
Endothall	96.8	94.1	P/P	60 - 160
Glufosinate	92.7	96.1	P/P	60 - 160
Glufosinate	96.0	92.7	P/P	60 - 160
Glyphosate	92.8	95.6	P/P	60 - 160
Glyphosate	93.4	92.8	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A117037

Included Lab Sample IDs: 2381366, 2381367

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	110	102	P/P	50 - 150
2,4,5-T	109	104	P/P	50 - 150
Acetaminophen	115	117	P/P	60 - 160
Acetamiprid	112	107	P/P	50 - 150
Afidopyropen	104	72.2	P/P	50 - 150
Bentazon	89.3	90.9	P/P	50 - 160
Benzovindiflupyr	98.8	78.3	P/P	50 - 150
Carbamazepine	117	111	P/P	60 - 150
Clothianidin	109	117	P/P	60 - 150
Dinotefuran	115	135	P/P	50 - 150
Diuron	112	96.7	P/P	60 - 160
Fenuron	112	122	P/P	60 - 150
Fluridone	96.9	92.2	P/P	60 - 160
Hydrocodone	111	118	P/P	60 - 150
Ibuprofen	103	64.4	P/P	50 - 160
Imazapyr	106	107	P/P	50 - 150
Imidacloprid	103	96.9	P/P	60 - 150
Linuron	99.3	88.6	P/P	60 - 150
Mandestrobin	90.6	76.2	P/P	50 - 150
MCPP	103	90.2	P/P	50 - 150
Naproxen	104	65.7	P/P	50 - 160
Primidone	101	90.4	P/P	60 - 150
Pyraclostrobin	85.1	77.2	P/P	60 - 150
Silvex	114	109	P/P	50 - 150
Thiamethoxam	115	116	P/P	50 - 150
Tolfenpyrad	83.8	66.8	P/P	60 - 150
Triclopyr	102	92.6	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A117088
Included Lab Sample IDs: 2381368

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	91.5	112	P/P	50 - 150
2,4,5-T	117	104	P/P	50 - 150
Acetaminophen	103	107	P/P	60 - 160
Acetamiprid	128	101	P/P	50 - 150
Afidopyropen	96.9	76.8	P/P	50 - 150
Bentazon	118	121	P/P	50 - 160
Benzovindiflupyr	110	104	P/P	50 - 150
Carbamazepine	98.3	108	P/P	60 - 150
Clothianidin	126	120	P/P	60 - 150
Dinotefuran	115	111	P/P	50 - 150
Diuron	101	111	P/P	60 - 160
Fenuron	105	101	P/P	60 - 150
Fluridone	113	110	P/P	60 - 160
Hydrocodone	135	104	P/P	60 - 150
Ibuprofen	122	68.7	P/P	50 - 160
Imazapyr	129	97.7	P/P	50 - 150
Imidacloprid	104	102	P/P	60 - 150
Linuron	113	98.9	P/P	60 - 150
Mandestrobin	114	101	P/P	50 - 150
MCPP	100	109	P/P	50 - 150
Naproxen	95.0	110	P/P	50 - 160
Primidone	119	102	P/P	60 - 150
Pyraclostrobin	109	107	P/P	60 - 150
Silvex	118	106	P/P	50 - 150
Thiamethoxam	118	127	P/P	50 - 150
Tolfenpyrad	112	110	P/P	60 - 150
Triclopyr	97.6	125	P/P	50 - 150

Reference Method: EPA 8276
Run ID: A117106
Included Lab Sample IDs: 2381365

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	100		P	80 - 120
Toxaphene	109		P	80 - 120

Reference Method: EPA 8270E
Run ID: A117146
Included Lab Sample IDs: 2381365

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	98.7		P	80 - 120
PCB-1260	101		P	80 - 120

Reference Method: EPA 8270E
Run ID: A117156
Included Lab Sample IDs: 2381365

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	105		P	80 - 120
Alpha-BHC	98.4		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
 Run ID: A117156
 Included Lab Sample IDs: 2381365

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Alpha-Chlordane	103		P	80 - 120
Beta-BHC	103		P	80 - 120
Beta-Cyfluthrin	100		P	80 - 120
Bifenthrin	103		P	80 - 120
Carbophenothion	105		P	80 - 120
Chlorothalonil	105		P	80 - 120
Cis-Nonachlor	82.0		P	80 - 120
Cypermethrin	116		P	80 - 120
Dacthal	111		P	80 - 120
DDD-p,p'	106		P	80 - 120
DDE-p,p'	106		P	80 - 120
DDT-p,p'	98.5		P	80 - 120
Delta-BHC	102		P	80 - 120
Deltamethrin	101		P	80 - 120
Dichlobenil	97.8		P	80 - 120
Dicofol	83.5		P	80 - 120
Dieldrin	105		P	80 - 120
Endosulfan I	110		P	80 - 120
Endosulfan II	114		P	80 - 120
Endosulfan Sulfate	104		P	80 - 120
Endrin	108		P	80 - 120
Endrin Aldehyde	104		P	80 - 120
Endrin Ketone	113		P	80 - 120
Esfenvalerate	103		P	80 - 120
Ethalfuralin	96.5		P	80 - 120
Fenpropathrin	111		P	80 - 120
Gamma-BHC	108		P	80 - 120
Gamma-Chlordane	112		P	80 - 120
Heptachlor	113		P	80 - 120
Heptachlor Epoxide	108		P	80 - 120
Hexachlorobenzene	101		P	80 - 120
Kepone	85.5		P	80 - 120
Lambda-Cyhalothrin	111		P	80 - 120
Methoprene	102		P	80 - 120
Methoxychlor	92.8		P	80 - 120
MGK-264	103		P	80 - 120
Mirex	118		P	80 - 120
Oxychlordane	103		P	80 - 120
Permethrin	104		P	80 - 120
Phenothrin	110		P	80 - 120
Piperonyl Butoxide	84.2		P	80 - 120
Prallethrin	98.7		P	80 - 120
Tau-Fluvalinate	102		P	80 - 120
Tetramethrin	104		P	80 - 120
Trans-Nonachlor	110		P	80 - 120
Triclosan Methyl	113		P	80 - 120
Trifluralin	97.4		P	80 - 120

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

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision	
							SMP	MS
EPA 8270E	Aldrin	54.5		44.7	46.4			3.66
	Alpha-BHC	80.1		79.4	84.9			6.76
	Alpha-Chlordane	78.1		71.1	76.9			7.86
	Beta-BHC	88.8		78.0	77.8			0.281
	Beta-Cyfluthrin	73.5		85.4	90.6			5.85
	Bifenthrin	66.9		79.9	73.1			8.87
	Carbophenothion	66.1		63.6	65.2			2.50
	Chlorothalonil	87.1		107	98.4			8.35
	Cis-Nonachlor	53.0		51.3	46.1			10.5
	Cypermethrin	64.3		69.0	72.2			4.60
	Dacthal	80.1		72.9	74.6			2.23
	DDD-p,p'	75.9		69.2	74.4			7.28
	DDE-p,p'	69.8		64.1	66.8			4.07
	DDT-p,p'	65.9		60.4	61.5			1.76
	Delta-BHC	102		88.9	91.9			3.27
	Deltamethrin	103		117	118			1.54
	Dichlobenil	65.2		50.5	54.1			6.82
	Dicofol	54.4		60.3	60.2			0.124
	Dieldrin	72.3		67.7	69.9			3.03
	Endosulfan I	73.8		60.9	62.2			2.12
	Endosulfan II	82.0		70.8	74.0			4.41
	Endosulfan Sulfate	100		97.3	90.1			7.71
	Endrin	75.8		68.1	71.2			4.50
	Endrin Aldehyde	24.2		51.0	45.7			11.0
	Endrin Ketone	148		89.6	137			42.0
	Esfenvalerate	91.5		117	118			1.02
	Ethalfuralin	65.9		59.8	60.4			0.967
	Fenpropathrin	74.2		68.6	76.5			10.9
	Gamma-BHC	79.3		69.3	72.3			4.27
	Gamma-Chlordane	78.9		75.0	75.6			0.810
	Heptachlor	65.9		55.1	57.6			4.43
	Heptachlor Epoxide	72.7		61.5	65.5			6.29
	Hexachlorobenzene	68.4		59.7	61.4			2.70
	Kepone	153		134	139			3.92
	Lambda-Cyhalothrin	63.5		80.3	81.8			1.77
	Methoprene	63.6		74.1	77.6			4.72
	Methoxychlor	84.7		88.3	80.2			9.63
	MGK-264	77.3		73.4	76.3			3.92
	Mirex	58.6		50.9	54.3			6.47
	Oxychlordane	71.0		60.0	65.2			8.38
	PCB-1016	97.3	101	87.5		3.97		
	PCB-1260	109	117	98.7		7.10		
	Permethrin	73.9		68.4	72.5			5.82
	Phenothrin	56.7		68.1	72.7			6.46
	Piperonyl Butoxide	138		87.7	90.3			2.93
	Prallethrin	80.8		88.2	88.0			0.159
	Tau-Fluvalinate	78.4		107	111			4.13
	Tetramethrin	100		107	103			4.12
	Trans-Nonachlor	68.5		60.9	60.9			0.0590
	Triclosan Methyl	88.2		75.6	77.6			2.55
	Trifluralin	68.8		61.8	60.1			2.69
EPA 8276	Chlordane	91.1		91.9	93.2			1.33
	Toxaphene	99.3		112	112			0.245
EPA 8321B	2,4-D	120		150	119			23.3

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8321B	2,4-D	80.2	95.4	83.9		11.9
	2,4,5-T	94.7	116	95.9		18.9
	2,4,5-T	68.8	94.8	103		8.74
	Acesulfame K	113	121	131		7.71
	Acetaminophen	84.4	91.8	88.2		3.94
	Acetaminophen	80.2	89.6	98.5		9.43
	Acetamiprid	80.5	106	102		4.14
	Acetamiprid	90.9	99.4	93.1		6.55
	Afidopyropen	51.3	71.8	67.5		6.15
	Afidopyropen	55.5	78.8	76.7		2.74
	AMPA	94.6	54.4	43.8		15.6
	Bentazon	66.6	61.7	68.2		10.0
	Bentazon	74.9				10.6
	Benzovindiflupyr	78.1	77.0	77.5		0.718
	Benzovindiflupyr	81.4	72.3	83.6		14.5
	Carbamazepine	65.2	65.0	79.5		20.2
	Carbamazepine	68.5	56.8	56.9		0.138
	Clothianidin	93.9	99.5	98.5		0.979
	Clothianidin	93.5	105	109		4.13
	Dinotefuran	96.8	116	104		10.8
	Dinotefuran	97.8	120	126		5.30
	Diuron	47.5	46.5	59.8		25.0
	Diuron	67.5	42.3	49.7		9.24
	Endothall	93.6	110	115		4.39
	Fenuron	101	94.1	95.5		1.53
	Fenuron	91.5	69.7	74.8		7.16
	Fluridone	70.4	74.3	78.2		5.09
	Fluridone	75.0	68.9	73.0		3.18
	Glufosinate	113	76.4	64.7		16.6
	Glyphosate	109	82.2	64.2		11.6
	Hydrocodone	87.6	96.1	92.7		3.52
	Hydrocodone	108	106	107		1.59
	Ibuprofen	79.2	77.3	85.7		10.4
	Ibuprofen	86.6	56.8	72.3		24.1
	Imazapyr	83.1	103	88.1		14.3
	Imazapyr	106				9.40
	Imidacloprid	104	125	107		15.2
	Imidacloprid	90.0	158	168		5.78
	Linuron	53.7	51.8	60.2		15.0
	Linuron	71.3	81.9	94.5		14.3
	Mandestrobin	73.2	83.2	78.3		6.10
	Mandestrobin	80.1	78.6	81.9		4.13
	MCPP	112	131	112		15.5
	MCPP	89.1	102	108		6.01
	Naproxen	82.4	63.7	74.3		15.4
	Naproxen	85.1	96.3	82.9		14.9
	Primidone	86.0	94.6	96.9		2.41
	Primidone	111	119	123		3.17
	Pyraclostrobin	66.7	62.0	62.3		0.484
	Pyraclostrobin	59.8	76.0	76.9		1.15
	Silvex	85.3	86.8	87.2		0.421
	Silvex	61.3	74.5	86.3		14.7
	Sucralose	82.2	73.6	72.0		1.98
	Thiamethoxam	82.8	89.7	92.2		2.79

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision LCS	SMP	MS
EPA 8321B	Thiamethoxam	94.9	110	112			1.83
	Tolfenpyrad	39.4	36.6	31.5			14.9
	Tolfenpyrad	42.7	55.2	56.1			1.59
	Triclopyr	84.0	110	98.8			10.6
	Triclopyr	65.5	96.9	95.1			1.87

Reference Method Descriptions

Method	Description	Associated Samples
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2381365
EPA 8270E	PCBs in water matrices by GC/MS/MS	2381365
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2381365
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2381366, 2381367, 2381368

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8270E	01/18/2023	01/23/2023 08:30	Rasheda Ghaffari	01/28/2023 21:21	Julie Wi	2381365
	01/18/2023	01/26/2023 11:00	Rasheda Ghaffari	01/27/2023 19:39	Vandana T. Nagar	2381365
EPA 8276	01/18/2023	01/23/2023 08:30	Rasheda Ghaffari	01/25/2023 04:33	Lipi Saha	2381365
EPA 8321B	01/18/2023	01/19/2023 08:00	Manjita Shrestha	01/19/2023 09:23	Manjita Shrestha	2381366
	01/18/2023	01/19/2023 08:00	Manjita Shrestha	01/19/2023 11:53	Manjita Shrestha	2381367
	01/18/2023	01/19/2023 08:00	Manjita Shrestha	01/19/2023 12:08	Manjita Shrestha	2381368
	01/18/2023	01/19/2023 08:00	Manjita Shrestha	01/19/2023 19:43	Manjita Shrestha	2381366
	01/18/2023	01/19/2023 08:00	Manjita Shrestha	01/19/2023 21:54	Manjita Shrestha	2381367
	01/18/2023	01/19/2023 08:00	Manjita Shrestha	01/19/2023 22:07	Manjita Shrestha	2381368
	01/18/2023	01/19/2023 10:00	June Rhew	01/21/2023 03:23	Juyoung Kim	2381366
	01/18/2023	01/19/2023 10:00	June Rhew	01/21/2023 03:42	Juyoung Kim	2381367
	01/18/2023	01/23/2023 14:00	June Rhew	01/24/2023 15:54	Juyoung Kim	2381368