Chemical Analysis Report

SO-DIST-2021-08-27-02

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

Event Description: **2021 SMP : Collier County**
Request ID: **RQ-2021-08-02-81**
Customer: **SO-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FLDEP South District Office
2295 Victoria Ave. Suite 364
Fort Myers, FL 33901-3381
Attn: William Mullen

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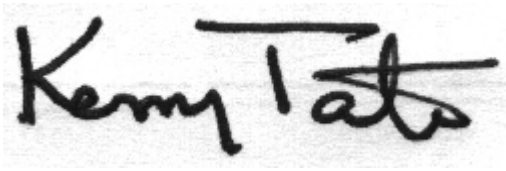
Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 13-SEP-2021 14:03



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: COCAT41 **Collection Date/Time: 08/26/2021 11:26**

Field ID: AF65709 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2272464	EPA 8321B	Aldicarb	0.020	U	ug/L	P403053	
		Aldicarb Sulfone	0.0020	U	ug/L	P403053	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P403053	
		Carbaryl	0.0020	U	ug/L	P403053	
		Carbofuran	0.0020	U	ug/L	P403053	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P403053	
		Methiocarb	0.0020	U	ug/L	P403053	
		Methomyl	0.0020	U	ug/L	P403053	
		Oxamyl	0.0020	U	ug/L	P403053	
		Propoxur	0.0020	U	ug/L	P403053	
2272465		2,4-D	0.21		ug/L	P403027	
		Acesulfame K	0.10	U	ug/L	P402974	
		2,4,5-T	0.0040	U	ug/L	P403027	
		AMPA	0.31	I	ug/L	P402974	
		Acetaminophen	0.0080	U	ug/L	P403027	
		Acetamiprid	0.0020	U	ug/L	P403027	
		Endothall	0.25	U	ug/L	P402974	
		Glufosinate	0.10	U	ug/L	P402974	
		Glyphosate	1.6		ug/L	P402974	
		Afidopyropen	0.0020	U	ug/L	P403027	
		Bentazon	0.19		ug/L	P403027	
		Sucralose	0.38		ug/L	P402974	
		Benzovindiflupyr	0.0020	U	ug/L	P403027	
		Carbamazepine	8.0E-04	U	ug/L	P403027	
		Clothianidin	0.0039	I	ug/L	P403027	
		Dinotefuran	0.0020	U	ug/L	P403027	
		Diuron	0.0052	I	ug/L	P403027	
		Fenuron	0.016	U	ug/L	P403027	
		Fluridone	0.10		ug/L	P403027	
		Imazapyr	0.29		ug/L	P403027	
		Hydrocodone	0.0020	U	ug/L	P403027	
		Ibuprofen	0.020	U	ug/L	P403027	
		Imidacloprid	0.074		ug/L	P403027	
		Linuron	0.0040	U	ug/L	P403027	
		Mandestrobin	0.0020	U	ug/L	P403027	
		MCPP	0.0033	I	ug/L	P403027	
		Naproxen	0.0080	U	ug/L	P403027	
		Primidone	0.0040	U	ug/L	P403027	MS, RPD
		Pyraclostrobin	0.0020	U	ug/L	P403027	
		Thiamethoxam	0.0020	U	ug/L	P403027	
		Tolfenpyrad	0.0020	U	ug/L	P403027	
		Triclopyr	0.0040	U	ug/L	P403027	
2272466	EPA 8270E	Aldrin	0.71	U	ng/L	P403066	RPD
		Alpha-BHC	0.11	U	ng/L	P403066	

Field ID: AF65709 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2272466	EPA 8270E	Alpha-Chlordane	0.22	U	ng/L	P403066	
		Beta-BHC	0.11	U	ng/L	P403066	
		Beta-Cyfluthrin**	1.4	U	ng/L	P403066	
		Bifenthrin**	0.55	U	ng/L	P403066	
		Chlorothalonil	0.55	U	ng/L	P403066	
		Cis-Nonachlor**	0.22	UJ	ng/L	P403066	LCS, MS
		Cypermethrin	1.6	U	ng/L	P403066	MS, RPD
		Dacthal**	0.16	U	ng/L	P403066	
		DDD-p,p'	0.27	U	ng/L	P403066	
		DDE-p,p'	0.22	U	ng/L	P403066	
		DDT-p,p'	0.27	U	ng/L	P403066	
		Delta-BHC	0.44	U	ng/L	P403066	
		Deltamethrin**	1.4	U	ng/L	P403066	MS, RPD
		Dichlobenil**	0.11	U	ng/L	P403066	
		Dicofol	1.4	U	ng/L	P403066	
		Dieldrin	0.44	U	ng/L	P403066	
		Endosulfan I	0.44	U	ng/L	P403066	
		Endosulfan II	0.44	U	ng/L	P403066	
		Endosulfan Sulfate	0.33	U	ng/L	P403066	
		Endrin	0.44	U	ng/L	P403066	
		Endrin Aldehyde	0.82	U	ng/L	P403066	
		Endrin Ketone	0.44	U	ng/L	P403066	
		Esfenvalerate**	0.82	U	ng/L	P403066	MS
		Ethalfluralin**	0.16	UJ	ng/L	P403066	LCS
		Fenpropathrin**	0.27	U	ng/L	P403066	
		Gamma-BHC	0.14	U	ng/L	P403066	
		Gamma-Chlordane	0.22	UJ	ng/L	P403066	LCS, MS, RPD
		Heptachlor	0.22	UJ	ng/L	P403066	LCS, MS
		Heptachlor Epoxide	0.27	U	ng/L	P403066	
		Hexachlorobenzene	1.1	UJ	ng/L	P403066	LCS
		Kepone**	5.5	UJ	ng/L	P403066	CCV
		Lambda-Cyhalothrin**	0.82	U	ng/L	P403066	MS
		Methoxychlor	0.33	U	ng/L	P403066	
		MGK-264**	0.22	U	ng/L	P403066	
		Mirex	0.77	UJ	ng/L	P403066	LCS, MS, RPD
		Permethrin	1.8	U	ng/L	P403066	
		Phenothrin**	0.98	U	ng/L	P403066	RPD
		Piperonyl Butoxide**	3.2		ng/L	P403066	
		Prallethrin**	2.2	U	ng/L	P403066	
		Tau-Fluvalinate**	0.27	U	ng/L	P403066	
		Tetramethrin**	0.82	U	ng/L	P403066	
		Trans-Nonachlor**	0.22	UJ	ng/L	P403066	LCS, MS, RPD
		Triclosan Methyl**	0.16	U	ng/L	P403066	
		Trifluralin	0.22	UJ	ng/L	P403066	LCS, RPD

Field ID: AF65709 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2272466	EPA 8276	Chlordane	5.5	U	ng/L	P403066	
		Toxaphene	33	U	ng/L	P403066	
2272467	EPA 8270E	Acetochlor	0.24	U	ng/L	P403054	
		Alachlor	0.24	U	ng/L	P403054	
		Ametryn	1.4	I	ng/L	P403054	
		Atrazine	21		ng/L	P403054	
		Atrazine Desethyl	6.6		ng/L	P403054	
		Azinphos Methyl	1.9	UJ	ng/L	P403054	SUR
		Azoxystrobin**	5.8		ng/L	P403054	
		Bromacil	0.49	U	ng/L	P403054	
		Butylate	0.39	U	ng/L	P403054	
		Caffeine**	9.2	I	ng/L	P403054	MS
		Carbophenothion	0.49	UJ	ng/L	P403054	SUR
		Carfentrazone Ethyl**	0.097	U	ng/L	P403054	
		Chlorpyrifos Ethyl	0.24	UJ	ng/L	P403054	SUR
		Chlorpyrifos Methyl	0.049	UJ	ng/L	P403054	SUR
		Cyanazine	3.2	U	ng/L	P403054	
		Demeton	1.5	UJ	ng/L	P403054	SUR
		Diazinon	0.12	UJ	ng/L	P403054	SUR
		Difenoconazole**	0.58	U	ng/L	P403054	
		Dimethenamid**	1.7		ng/L	P403054	
		Disulfoton	0.49	UJ	ng/L	P403054	SUR
		Dithiopyr**	5.7		ng/L	P403054	
		EPTC	1.2	U	ng/L	P403054	
		Ethion	0.15	UJ	ng/L	P403054	SUR
		Ethoprop	0.097	UJ	ng/L	P403054	SUR
		Fenamiphos	0.49	UJ	ng/L	P403054	SUR
		Fenbuconazole**	0.12	U	ng/L	P403054	
		Fipronil	0.27	I	ng/L	P403054	
		Fipronil Desulfinyl**	0.77		ng/L	P403054	
		Fipronil Sulfide	0.64		ng/L	P403054	
		Fipronil Sulfone	1.7		ng/L	P403054	
		Fluazifop-P-butyl**	0.097	U	ng/L	P403054	
		Fludioxonil**	0.12	U	ng/L	P403054	
		Flumioxazin**	1.7	U	ng/L	P403054	
		Flutolanil**	2.6		ng/L	P403054	
		Fluxapyroxad**	5.8		ng/L	P403054	
		Fonofos	0.19	UJ	ng/L	P403054	SUR
		Hexazinone	5.1		ng/L	P403054	
		Imazalil**	0.73	U	ng/L	P403054	
		Iprodione**	0.58	U	ng/L	P403054	
		Malathion	0.34	UJ	ng/L	P403054	SUR
		Metalaxyl	2.0	I	ng/L	P403054	
		Metolachlor	0.55	I	ng/L	P403054	
		Metribuzin	3.2	U	ng/L	P403054	

Field ID: AF65709 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2272467	EPA 8270E	Mevinphos	1.0	UJ	ng/L	P403054	SUR
		Molinate	0.29	U	ng/L	P403054	
		Myclobutanil**	5.3		ng/L	P403054	
		Naled**	1.5	UJ	ng/L	P403054	SUR
		Norflurazon	0.49	U	ng/L	P403054	
		Oxadiazon	46		ng/L	P403054	
		Oxyfluorfen**	0.15	U	ng/L	P403054	
		Parathion Ethyl	0.24	UJ	ng/L	P403054	SUR
		Parathion Methyl	0.54	UJ	ng/L	P403054	SUR
		Pendimethalin	0.97	U	ng/L	P403054	
		Phorate	0.51	UJ	ng/L	P403054	SUR
		Prodiamine**	0.17	U	ng/L	P403054	
		Prometon	0.88	U	ng/L	P403054	
		Prometryn	0.19	U	ng/L	P403054	
		Pronamide**	0.15	U	ng/L	P403054	
		Propiconazole**	2.7		ng/L	P403054	
		Pyriproxyfen**	0.12	U	ng/L	P403054	
		Simazine	0.49	U	ng/L	P403054	
		Sulfentrazone**	270		ng/L	P403054	
		Tebuconazole**	0.49	U	ng/L	P403054	
		Terbufos	0.097	UJ	ng/L	P403054	SUR
		Terbuthylazine	0.41	U	ng/L	P403054	

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.
EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8270E: MS accuracy for multiple parameters not assessed due to high content of these parameters in the sample spiked. Refer to the Lab Analysis Report for an explanation of QC Codes.

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P403054

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P403054

Component	Result	Code	Units
Fipronil	0.25	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.12	U	ng/L
Fludioxonil	0.12	U	ng/L
Flumioxazin	1.8	U	ng/L
Flumioxazin	1.8	U	ng/L
Flutolanil	0.10	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fonofos	0.20	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.75	U	ng/L
Imazalil	0.75	U	ng/L
Iprodione	0.60	U	ng/L
Iprodione	0.60	U	ng/L
Malathion	0.35	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.75	U	ng/L
Metalaxyl	0.75	U	ng/L
Metolachlor	0.35	U	ng/L
Metolachlor	0.35	U	ng/L
Metribuzin	3.2	U	ng/L
Metribuzin	3.2	U	ng/L
Mevinphos	1.0	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.30	U	ng/L
Molinate	0.30	U	ng/L
Myclobutanil	0.25	U	ng/L
Myclobutanil	0.25	U	ng/L
Naled	1.5	U	ng/L
Naled	1.5	U	ng/L
Norflurazon	0.50	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Parathion Methyl	0.55	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P403054

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

Reference Method: EPA 8270E
Batch ID: P403066

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
Chlorothalonil	0.50	U	ng/L
Chlorothalonil	0.50	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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P403066

Component	Result	Code	Units
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	0.10	U	ng/L
Dichlobenil	0.10	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
Ethalfluralin	0.15	U	ng/L
Ethalfluralin	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
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	0.70	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P403066

Component	Result	Code	Units
Mirex	0.70	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 8276
Batch ID: P403066

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

Reference Method: EPA 8321B
Batch ID: P402974

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: P403027

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8321B
Batch ID: P403027

Component	Result	Code	Units
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P403053

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P403054

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	102	119	P/P	70 - 121
Alachlor	98.2	113	P/P	70 - 119
Ametryn	114	125	P/P	61 - 135
Atrazine	98.9	103	P/P	76 - 123
Atrazine Desethyl	85.8	87.1	P/P	35 - 140
Azinphos Methyl	127	125	P/P	57 - 163
Azoxystrobin	106	112	P/P	43 - 231
Bromacil	54.6	58.0	P/P	42 - 123
Butylate	60.5	66.7	P/P	34 - 92.0
Caffeine	75.3	71.0	P/P	70 - 130
Carbophenothion	99.7	113	P/P	61 - 121
Carfentrazone Ethyl	114	120	P/P	62 - 139
Chlorpyrifos Ethyl	95.3	105	P/P	67 - 121
Chlorpyrifos Methyl	98.2	113	P/P	67 - 120
Cyanazine	141	153	P/P	20 - 226
Demeton	102	99.8	P/P	35 - 125
Diazinon	107	106	P/P	70 - 122
Difenoconazole	154	157	P/P	56 - 186
Dimethenamid	80.4	94.7	P/P	67 - 119
Disulfoton	90.2	89.3	P/P	47 - 120
Dithiopyr	96.7	103	P/P	67 - 118
EPTC	64.9	65.9	P/P	33 - 90.0
Ethion	85.5	92.5	P/P	40 - 133
Ethoprop	87.4	94.1	P/P	61 - 121
Fenamiphos	94.6	100	P/P	31 - 139
Fenbuconazole	112	118	P/P	66 - 141
Fipronil	104	113	P/P	62 - 129
Fipronil Desulfinyl	109	125	P/P	59 - 126
Fipronil Sulfide	88.4	103	P/P	63 - 117
Fipronil Sulfone	84.9	92.4	P/P	57 - 117
Fluazifop-P-butyl	95.7	106	P/P	63 - 124
Fludioxonil	108	114	P/P	63 - 123
Flumioxazin	136	138	P/P	34 - 245
Flutolanil	97.0	102	P/P	56 - 131
Fluxapyroxad	93.0	91.1	P/P	57 - 117
Fonofos	85.7	93.7	P/P	61 - 116
Hexazinone	102	104	P/P	55 - 138
Imazalil	85.0	103	P/P	33 - 143
Iprodione	103	111	P/P	59 - 118
Malathion	108	114	P/P	62 - 138
Metalaxyl	100	108	P/P	24 - 147
Metolachlor	94.5	101	P/P	68 - 118
Metribuzin	86.8	90.8	P/P	20 - 239
Mevinphos	85.1	82.7	P/P	46 - 124
Molinate	59.3	65.8	P/P	46 - 100
Myclobutanil	102	106	P/P	32 - 149
Naled	42.5	43.7	P/P	32 - 95.0
Norflurazon	97.6	105	P/P	57 - 127
Oxadiazon	88.4	92.2	P/P	63 - 118
Oxyfluorfen	109	109	P/P	69 - 137
Parathion Ethyl	89.6	98.2	P/P	70 - 113
Parathion Methyl	103	116	P/P	71 - 130

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P403054

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Pendimethalin	75.1	81.4	P/P	55 - 118
Phorate	78.8	78.2	P/P	46 - 125
Prodiamine	36.4	35.6	P/P	20 - 141
Prometon	95.2	94.5	P/P	54 - 122
Prometryn	96.0	101	P/P	66 - 124
Pronamide	101	98.6	P/P	79 - 122
Propiconazole	95.0	105	P/P	61 - 126
Pyriproxyfen	95.3	97.7	P/P	52 - 131
Simazine	101	112	P/P	75 - 128
Sulfentrazone	93.4	96.9	P/P	20 - 132
Tebuconazole	83.6	90.5	P/P	20 - 116
Terbufos	103	109	P/P	61 - 117
Terbuthylazine	96.0	96.2	P/P	74 - 116

Reference Method: EPA 8270E
Batch ID: P403066

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	29.6	36.3	P/P	20 - 150
Alpha-BHC	87.3	94.6	P/P	50 - 150
Alpha-Chlordane	53.0	62.4	P/P	50 - 150
Beta-BHC	110	115	P/P	50 - 150
Beta-Cyfluthrin	93.1	72.5	P/P	50 - 150
Bifenthrin	55.5	58.1	P/P	40 - 150
Chlorothalonil	114	112	P/P	20 - 150
Cis-Nonachlor	48.5	50.1	F/P	50 - 150
Cypermethrin	83.9	68.6	P/P	50 - 150
Dacthal	84.5	93.5	P/P	50 - 150
DDD-p,p'	58.1	59.4	P/P	50 - 150
DDE-p,p'	54.6	64.8	P/P	50 - 150
DDT-p,p'	50.9	60.5	P/P	50 - 150
Delta-BHC	108	113	P/P	50 - 150
Deltamethrin	102	81.3	P/P	50 - 150
Dichlobenil	84.3	91.6	P/P	40 - 150
Dicofol	57.1	54.5	P/P	50 - 150
Dieldrin	60.6	71.5	P/P	50 - 150
Endosulfan I	59.8	68.1	P/P	50 - 150
Endosulfan II	75.3	72.6	P/P	50 - 150
Endosulfan Sulfate	83.3	81.0	P/P	50 - 150
Endrin	57.1	58.2	P/P	50 - 150
Endrin Aldehyde	69.6	70.3	P/P	50 - 150
Endrin Ketone	87.9	86.8	P/P	50 - 150
Esfenvalerate	103	81.8	P/P	50 - 180
Ethalfluralin	49.0	57.7	F/P	50 - 150
Fenpropathrin	54.7	65.1	P/P	50 - 150
Gamma-BHC	93.3	96.3	P/P	50 - 150
Gamma-Chlordane	48.7	57.2	F/P	50 - 150
Heptachlor	43.6	52.8	F/P	50 - 150
Heptachlor Epoxide	60.7	71.9	P/P	50 - 150
Hexachlorobenzene	47.3	55.5	F/P	50 - 150
Kepone	75.6	76.7	P/P	30 - 180
Lambda-Cyhalothrin	101	84.6	P/P	50 - 200

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P403066

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Methoxychlor	60.5	67.8	P/P	50 - 150
MGK-264	79.3	89.1	P/P	30 - 150
Mirex	34.3	35.0	F/F	50 - 180
Permethrin	77.5	71.9	P/P	50 - 150
Phenothrin	35.1	33.0	P/P	20 - 150
Piperonyl Butoxide	91.3	85.5	P/P	50 - 150
Prallethrin	60.3	69.7	P/P	30 - 150
Tau-Fluvalinate	72.6	60.8	P/P	40 - 150
Tetramethrin	71.5	83.2	P/P	30 - 150
Trans-Nonachlor	48.6	57.2	F/P	50 - 150
Triclosan Methyl	63.4	72.8	P/P	50 - 150
Trifluralin	45.8	55.3	F/P	50 - 150

Reference Method: EPA 8276
Batch ID: P403066

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	81.1	66.8	P/P	56 - 117
Toxaphene	59.5	55.1	P/P	45 - 116

Reference Method: EPA 8321B
Batch ID: P402974

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	78.6		P	40 - 150
AMPA	82.4		P	40 - 150
Endothall	68.1		P	40 - 150
Glufosinate	105		P	40 - 150
Glyphosate	107		P	40 - 150
Sucralose	90.2		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P403027

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	92.8		P	40 - 150
2,4,5-T	106		P	40 - 150
Acetaminophen	80.2		P	30 - 150
Acetamiprid	96.1		P	40 - 150
Afidopyropen	83.2		P	40 - 150
Bentazon	119		P	30 - 150
Benzovindiflupyr	94.7		P	40 - 150
Carbamazepine	85.8		P	40 - 150
Clothianidin	98.4		P	40 - 150
Dinotefuran	84.8		P	40 - 150
Diuron	79.0		P	40 - 150
Fenuron	94.5		P	40 - 150
Fluridone	100		P	40 - 150
Hydrocodone	77.7		P	40 - 150
Ibuprofen	54.6		P	40 - 150
Imazapyr	85.0		P	40 - 150
Imidacloprid	97.3		P	40 - 150

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P403027

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Linuron	83.9		P	40 - 150
Mandestrobin	95.1		P	40 - 150
MCPP	91.7		P	40 - 150
Naproxen	98.6		P	40 - 150
Primidone	84.9		P	40 - 150
Pyraclostrobin	87.5		P	40 - 150
Thiamethoxam	92.7		P	40 - 150
Tolfenpyrad	51.5		P	30 - 150
Triclopyr	97.3		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P403053

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	85.4		P	40 - 150
Aldicarb	85.4		P	30 - 150
Aldicarb Sulfone	96.8		P	40 - 150
Aldicarb Sulfoxide	92.9		P	40 - 150
Carbaryl	84.8		P	40 - 150
Carbofuran	88.1		P	40 - 150
Methiocarb	77.2		P	40 - 150
Methomyl	93.8		P	40 - 150
Oxamyl	88.8		P	40 - 150
Propoxur	89.7		P	40 - 150

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P403054

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2272438	Acetochlor	95.0	104	P/P	66 - 122
2272438	Alachlor	95.6	101	P/P	65 - 122
2272438	Ametryn	82.0	97.1	P/P	45 - 173
2272438	Atrazine Desethyl	99.7	111	P/P	25 - 150
2272438	Azinphos Methyl	102	102	P/P	44 - 174
2272438	Azoxystrobin	136	131	P/P	10 - 268
2272438	Bromacil	97.3	106	P/P	31 - 145
2272438	Butylate	57.8	57.8	P/P	15 - 97.0
2272438	Caffeine	60.8	62.2	F/F	70 - 130
2272438	Carbophenothion	101	93.7	P/P	42 - 129
2272438	Carfentrazone Ethyl	98.4	81.0	P/P	62 - 145
2272438	Chlorpyrifos Ethyl	96.7	95.3	P/P	60 - 124
2272438	Chlorpyrifos Methyl	107	101	P/P	66 - 119
2272438	Cyanazine	133	125	P/P	17 - 225
2272438	Demeton	124	133	P/P	36 - 142
2272438	Diazinon	114	113	P/P	70 - 128
2272438	Difenoconazole	138	137	P/P	33 - 222
2272438	Dimethenamid	75.9	77.3	P/P	54 - 125
2272438	Disulfoton	101	97.3	P/P	49 - 133
2272438	Dithiopyr	96.1	90.4	P/P	55 - 123
2272438	EPTC	57.0	53.4	P/P	19 - 91.0
2272438	Ethion	66.9	59.7	P/P	13 - 143
2272438	Ethoprop	104	98.5	P/P	49 - 144
2272438	Fenamiphos	67.0	66.2	P/P	32 - 136
2272438	Fenbuconazole	98.8	101	P/P	73 - 148
2272438	Fipronil	105	100	P/P	57 - 129
2272438	Fipronil Desulfinyl	115	105	P/P	49 - 127
2272438	Fipronil Sulfide	99.9	96.4	P/P	44 - 127
2272438	Fipronil Sulfone	99.4	94.7	P/P	35 - 126
2272438	Fluazifop-P-butyl	99.3	93.4	P/P	67 - 129
2272438	Fludioxonil	95.2	95.0	P/P	61 - 126
2272438	Flumioxazin	137	141	P/P	38 - 279
2272438	Flutolanil	83.1	86.9	P/P	55 - 136
2272438	Fluxapyroxad	82.1	82.2	P/P	33 - 140
2272438	Fonofos	108	104	P/P	58 - 125
2272438	Imazalil	166	160	P/P	10 - 221
2272438	Iprodione	86.3	89.2	P/P	32 - 140
2272438	Malathion	114	112	P/P	52 - 138
2272438	Metalaxyl	107	106	P/P	46 - 134
2272438	Metribuzin	61.8	100	P/P	16 - 272
2272438	Mevinphos	93.8	98.7	P/P	45 - 140
2272438	Molinate	61.2	51.9	P/P	41 - 103
2272438	Myclobutanil	96.0	97.6	P/P	60 - 134
2272438	Naled	36.5	40.4	P/P	20 - 113
2272438	Oxyfluorfen	112	118	P/P	66 - 176
2272438	Parathion Ethyl	103	103	P/P	57 - 132
2272438	Parathion Methyl	118	114	P/P	59 - 156
2272438	Pendimethalin	91.1	90.3	P/P	59 - 129
2272438	Phorate	89.3	88.7	P/P	47 - 136
2272438	Prodiamine	45.1	46.9	P/P	10 - 159
2272438	Prometon	88.0	87.3	P/P	59 - 127
2272438	Prometryn	99.5	103	P/P	59 - 129

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P403054

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2272438	Pronamide	92.7	96.2	P/P	65 - 145
2272438	Propiconazole	79.5	80.2	P/P	28 - 165
2272438	Pyriproxyfen	67.5	75.7	P/P	21 - 180
2272438	Simazine	112	98.3	P/P	63 - 147
2272438	Sulfentrazone	84.1	79.8	P/P	32 - 136
2272438	Tebuconazole	62.5	55.8	P/P	10 - 117
2272438	Terbufos	129	123	P/P	61 - 131
2272438	Terbuthylazine	97.0	98.9	P/P	62 - 126

Reference Method: EPA 8270E
Batch ID: P403066

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2272265	Aldrin	31.2	47.2	P/P	20 - 170
2272265	Alpha-BHC	91.9	91.7	P/P	50 - 170
2272265	Alpha-Chlordane	60.1	79.2	P/P	50 - 170
2272265	Beta-BHC	126	141	P/P	50 - 170
2272265	Beta-Cyfluthrin	52.1	74.8	P/P	50 - 170
2272265	Bifenthrin	55.7	63.1	P/P	40 - 170
2272265	Chlorothalonil	154	123	P/P	20 - 170
2272265	Cis-Nonachlor	40.1	55.9	F/P	50 - 170
2272265	Cypermethrin	38.2	62.4	F/P	50 - 170
2272265	Dacthal	93.4	98.9	P/P	50 - 170
2272265	DDD-p,p'	59.3	76.2	P/P	50 - 170
2272265	DDE-p,p'	60.4	80.2	P/P	50 - 170
2272265	DDT-p,p'	57.0	74.2	P/P	50 - 170
2272265	Delta-BHC	133	140	P/P	50 - 170
2272265	Deltamethrin	37.0	64.8	F/P	50 - 170
2272265	Dichlobenil	76.0	71.2	P/P	40 - 170
2272265	Dicofol	62.1	68.9	P/P	50 - 170
2272265	Dieldrin	69.4	87.7	P/P	50 - 170
2272265	Endosulfan I	70.7	83.4	P/P	50 - 170
2272265	Endosulfan II	79.2	88.2	P/P	50 - 170
2272265	Endosulfan Sulfate	77.8	96.9	P/P	50 - 170
2272265	Endrin	60.5	75.1	P/P	50 - 170
2272265	Endrin Aldehyde	57.9	62.2	P/P	50 - 170
2272265	Endrin Ketone	87.2	90.8	P/P	50 - 170
2272265	Esfenvalerate	38.7	61.2	F/P	50 - 180
2272265	Ethalfluralin	54.9	69.0	P/P	50 - 170
2272265	Fenpropathrin	56.8	72.7	P/P	50 - 170
2272265	Gamma-BHC	106	108	P/P	50 - 170
2272265	Gamma-Chlordane	46.2	66.4	F/P	50 - 170
2272265	Heptachlor	45.7	60.7	F/P	50 - 170
2272265	Heptachlor Epoxide	70.0	84.3	P/P	50 - 170
2272265	Hexachlorobenzene	53.3	61.7	P/P	50 - 170
2272265	Kepone	60.8	60.0	P/P	30 - 180
2272265	Lambda-Cyhalothrin	21.0	44.2	F/F	50 - 200
2272265	Methoxychlor	63.8	78.5	P/P	50 - 170
2272265	MGK-264	86.6	96.8	P/P	30 - 170
2272265	Mirex	36.6	52.4	F/P	50 - 180
2272265	Permethrin	68.2	88.2	P/P	50 - 170
2272265	Phenothrin	27.7	50.3	P/P	20 - 170

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P403066

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2272265	Piperonyl Butoxide	84.6	94.6	P/P	50 - 170
2272265	Prallethrin	81.6	101	P/P	30 - 170
2272265	Tau-Fluvalinate	66.1	75.7	P/P	40 - 170
2272265	Tetramethrin	62.2	73.5	P/P	30 - 170
2272265	Trans-Nonachlor	49.4	71.7	F/P	50 - 170
2272265	Triclosan Methyl	71.5	89.6	P/P	50 - 170
2272265	Trifluralin	51.7	70.0	P/P	50 - 170

Reference Method: EPA 8276
Batch ID: P403066

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2272297	Chlordane	92.7	92.8	P/P	47 - 128
2272297	Toxaphene	76.1	85.3	P/P	11 - 163

Reference Method: EPA 8321B
Batch ID: P402974

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2271284	Acesulfame K	56.7	57.9	P/P	40 - 150
2271284	AMPA	91.0	91.7	P/P	40 - 150
2271284	Endothall	101	103	P/P	40 - 150
2271284	Glufosinate	107	106	P/P	40 - 150
2271284	Glyphosate	108	110	P/P	40 - 150
2271284	Sucralose	93.6	94.0	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P403027

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2271466	2,4-D	105	96.8	P/P	40 - 150
2271466	2,4,5-T	111	101	P/P	40 - 150
2271466	Acetaminophen	81.5	84.3	P/P	30 - 150
2271466	Acetamiprid	91.7	84.6	P/P	40 - 150
2271466	Afidopyropen	111	99.8	P/P	40 - 150
2271466	Benzovindiflupyr	92.0	95.7	P/P	40 - 150
2271466	Carbamazepine	88.7	92.1	P/P	40 - 150
2271466	Clothianidin	68.7	70.6	P/P	40 - 150
2271466	Diuron	89.8	87.8	P/P	40 - 150
2271466	Fenuron	99.3	95.6	P/P	40 - 150
2271466	Fluridone	94.8	100	P/P	40 - 150
2271466	Hydrocodone	98.2	87.5	P/P	40 - 150
2271466	Ibuprofen	70.5	65.9	P/P	40 - 150
2271466	Imidacloprid	92.3	91.1	P/P	40 - 150
2271466	Linuron	99.3	77.0	P/P	40 - 150
2271466	Mandestrobin	104	101	P/P	40 - 150
2271466	MCPP	118	110	P/P	40 - 150
2271466	Naproxen	94.3	87.8	P/P	40 - 150
2271466	Primidone	32.3	50.6	F/P	40 - 150
2271466	Pyraclostrobin	91.3	87.3	P/P	40 - 150
2271466	Thiamethoxam	99.5	90.5	P/P	40 - 150
2271466	Tolfenpyrad	52.1	52.1	P/P	30 - 150

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P403027

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2271466	Triclopyr	106	96.9	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P403053

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2271283	3-Hydroxycarbofuran	73.4	70.7	P/P	40 - 150
2271283	Aldicarb	50.8	50.2	P/P	30 - 150
2271283	Aldicarb Sulfone	80.0	82.3	P/P	40 - 150
2271283	Aldicarb Sulfoxide	40.0	40.4	P/P	40 - 150
2271283	Carbaryl	73.5	74.0	P/P	40 - 150
2271283	Carbofuran	79.6	77.8	P/P	40 - 150
2271283	Methiocarb	77.5	75.9	P/P	40 - 150
2271283	Methomyl	90.1	88.5	P/P	40 - 150
2271283	Oxamyl	84.2	82.6	P/P	40 - 150
2271283	Propoxur	80.6	81.7	P/P	40 - 150

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P403054

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2272438	Acetochlor	9.03	Spike	P	0 - 30
2272438	Alachlor	5.65	Spike	P	0 - 30
2272438	Ametryn	8.93	Spike	P	0 - 30
2272438	Atrazine	1.04	Spike	P	0 - 30
2272438	Atrazine Desethyl	10.7	Spike	P	0 - 30
2272438	Azinphos Methyl	0.373	Spike	P	0 - 30
2272438	Azoxystrobin	3.44	Spike	P	0 - 30
2272438	Bromacil	8.69	Spike	P	0 - 30
2272438	Butylate	0.0130	Spike	P	0 - 30
2272438	Caffeine	1.40	Spike	P	0 - 30
2272438	Carbophenothion	7.90	Spike	P	0 - 30
2272438	Carfentrazone Ethyl	19.4	Spike	P	0 - 30
2272438	Chlorpyrifos Ethyl	1.51	Spike	P	0 - 30
2272438	Chlorpyrifos Methyl	6.41	Spike	P	0 - 30
2272438	Cyanazine	6.10	Spike	P	0 - 30
2272438	Demeton	7.58	Spike	P	0 - 30
2272438	Diazinon	0.538	Spike	P	0 - 30
2272438	Difenoconazole	1.14	Spike	P	0 - 30
2272438	Dimethenamid	1.84	Spike	P	0 - 30
2272438	Disulfoton	3.66	Spike	P	0 - 30
2272438	Dithiopyr	5.67	Spike	P	0 - 30
2272438	EPTC	6.58	Spike	P	0 - 30
2272438	Ethion	11.4	Spike	P	0 - 30
2272438	Ethoprop	5.56	Spike	P	0 - 30
2272438	Fenamiphos	1.09	Spike	P	0 - 30
2272438	Fenbuconazole	1.58	Spike	P	0 - 30
2272438	Fipronil	4.28	Spike	P	0 - 30
2272438	Fipronil Desulfinyl	8.76	Spike	P	0 - 30
2272438	Fipronil Sulfide	3.23	Spike	P	0 - 30
2272438	Fipronil Sulfone	4.79	Spike	P	0 - 30
2272438	Fluazifop-P-butyl	6.14	Spike	P	0 - 30
2272438	Fludioxonil	0.218	Spike	P	0 - 30
2272438	Flumioxazin	3.23	Spike	P	0 - 30
2272438	Flutolanil	4.47	Spike	P	0 - 30
2272438	Fluxapyroxad	0.0859	Spike	P	0 - 30
2272438	Fonofos	3.46	Spike	P	0 - 30
2272438	Hexazinone	3.45	Spike	P	0 - 30
2272438	Imazalil	4.12	Spike	P	0 - 30
2272438	Iprodione	3.29	Spike	P	0 - 30
2272438	Malathion	2.08	Spike	P	0 - 30
2272438	Metalaxyl	0.679	Spike	P	0 - 30
2272438	Metolachlor	1.85	Spike	P	0 - 30
2272438	Metribuzin	29.0	Spike	P	0 - 30
2272438	Mevinphos	5.01	Spike	P	0 - 30
2272438	Molinate	16.5	Spike	P	0 - 30
2272438	Myclobutanil	1.62	Spike	P	0 - 30
2272438	Naled	10.2	Spike	P	0 - 30
2272438	Norflurazon	3.36	Spike	P	0 - 30
2272438	Oxadiazon	3.59	Spike	P	0 - 30
2272438	Oxyfluorfen	5.06	Spike	P	0 - 30
2272438	Parathion Ethyl	0.413	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P403054

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2272438	Parathion Methyl	3.31	Spike	P	0 - 30
2272438	Pendimethalin	0.908	Spike	P	0 - 30
2272438	Phorate	0.722	Spike	P	0 - 30
2272438	Prodiamine	4.08	Spike	P	0 - 30
2272438	Prometon	0.755	Spike	P	0 - 30
2272438	Prometryn	3.27	Spike	P	0 - 30
2272438	Pronamide	3.72	Spike	P	0 - 30
2272438	Propiconazole	0.561	Spike	P	0 - 30
2272438	Pyriproxyfen	11.5	Spike	P	0 - 30
2272438	Simazine	9.86	Spike	P	0 - 30
2272438	Sulfentrazone	3.47	Spike	P	0 - 30
2272438	Tebuconazole	11.3	Spike	P	0 - 30
2272438	Terbufos	4.68	Spike	P	0 - 30
2272438	Terbuthylazine	1.98	Spike	P	0 - 30
LFB	Acetochlor	15.5	LCS	P	0 - 30
LFB	Alachlor	13.8	LCS	P	0 - 30
LFB	Ametryn	9.32	LCS	P	0 - 30
LFB	Atrazine	3.86	LCS	P	0 - 30
LFB	Atrazine Desethyl	1.57	LCS	P	0 - 30
LFB	Azinphos Methyl	1.26	LCS	P	0 - 30
LFB	Azoxystrobin	4.81	LCS	P	0 - 30
LFB	Bromacil	5.93	LCS	P	0 - 30
LFB	Butylate	9.84	LCS	P	0 - 30
LFB	Caffeine	5.83	LCS	P	0 - 30
LFB	Carbophenothion	12.0	LCS	P	0 - 30
LFB	Carfentrazone Ethyl	5.61	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	9.34	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	14.2	LCS	P	0 - 30
LFB	Cyanazine	8.55	LCS	P	0 - 30
LFB	Demeton	2.62	LCS	P	0 - 30
LFB	Diazinon	1.70	LCS	P	0 - 30
LFB	Difenoconazole	2.38	LCS	P	0 - 30
LFB	Dimethenamid	16.3	LCS	P	0 - 30
LFB	Disulfoton	0.999	LCS	P	0 - 30
LFB	Dithiopyr	6.09	LCS	P	0 - 30
LFB	EPTC	1.50	LCS	P	0 - 30
LFB	Ethion	7.88	LCS	P	0 - 30
LFB	Ethoprop	7.48	LCS	P	0 - 30
LFB	Fenamiphos	5.70	LCS	P	0 - 30
LFB	Fenbuconazole	5.52	LCS	P	0 - 30
LFB	Fipronil	8.49	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	13.3	LCS	P	0 - 30
LFB	Fipronil Sulfide	15.0	LCS	P	0 - 30
LFB	Fipronil Sulfone	8.38	LCS	P	0 - 30
LFB	Fluazifop-P-butyl	10.5	LCS	P	0 - 30
LFB	Fludioxonil	5.16	LCS	P	0 - 30
LFB	Flumioxazin	1.19	LCS	P	0 - 30
LFB	Flutolanil	5.23	LCS	P	0 - 30
LFB	Fluxapyroxad	2.10	LCS	P	0 - 30
LFB	Fonofos	8.94	LCS	P	0 - 30
LFB	Hexazinone	1.42	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P403054

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Imazalil	19.0	LCS	P	0 - 30
LFB	Iprodione	7.38	LCS	P	0 - 30
LFB	Malathion	5.94	LCS	P	0 - 30
LFB	Metalaxyl	6.82	LCS	P	0 - 30
LFB	Metolachlor	6.98	LCS	P	0 - 30
LFB	Metribuzin	4.53	LCS	P	0 - 30
LFB	Mevinphos	2.89	LCS	P	0 - 30
LFB	Molinate	10.3	LCS	P	0 - 30
LFB	Myclobutanil	4.36	LCS	P	0 - 30
LFB	Naled	2.78	LCS	P	0 - 30
LFB	Norflurazon	7.00	LCS	P	0 - 30
LFB	Oxadiazon	4.20	LCS	P	0 - 30
LFB	Oxyfluorfen	0.0148	LCS	P	0 - 30
LFB	Parathion Ethyl	9.13	LCS	P	0 - 30
LFB	Parathion Methyl	11.3	LCS	P	0 - 30
LFB	Pendimethalin	7.99	LCS	P	0 - 30
LFB	Phorate	0.844	LCS	P	0 - 30
LFB	Prodiamine	2.26	LCS	P	0 - 30
LFB	Prometon	0.658	LCS	P	0 - 30
LFB	Prometryn	4.99	LCS	P	0 - 30
LFB	Pronamide	2.67	LCS	P	0 - 30
LFB	Propiconazole	10.4	LCS	P	0 - 30
LFB	Pyriproxyfen	2.52	LCS	P	0 - 30
LFB	Simazine	10.0	LCS	P	0 - 30
LFB	Sulfentrazone	3.61	LCS	P	0 - 30
LFB	Tebuconazole	7.94	LCS	P	0 - 30
LFB	Terbufos	5.63	LCS	P	0 - 30
LFB	Terbuthylazine	0.119	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P403066

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2272265	Aldrin	41.0	Spike	F	0 - 30
2272265	Alpha-BHC	0.134	Spike	P	0 - 30
2272265	Alpha-Chlordane	27.5	Spike	P	0 - 30
2272265	Beta-BHC	10.7	Spike	P	0 - 30
2272265	Beta-Cyfluthrin	25.6	Spike	P	0 - 30
2272265	Bifenthrin	12.5	Spike	P	0 - 30
2272265	Chlorothalonil	23.0	Spike	P	0 - 50
2272265	Cis-Nonachlor	28.6	Spike	P	0 - 30
2272265	Cypermethrin	31.3	Spike	F	0 - 30
2272265	Dacthal	5.79	Spike	P	0 - 30
2272265	DDD-p,p'	24.9	Spike	P	0 - 30
2272265	DDE-p,p'	28.2	Spike	P	0 - 30
2272265	DDT-p,p'	26.1	Spike	P	0 - 30
2272265	Delta-BHC	5.11	Spike	P	0 - 30
2272265	Deltamethrin	38.7	Spike	F	0 - 30
2272265	Dichlobenil	6.43	Spike	P	0 - 30
2272265	Dicofol	10.4	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P403066

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2272265	Dieldrin	23.3	Spike	P	0 - 30
2272265	Endosulfan I	16.4	Spike	P	0 - 30
2272265	Endosulfan II	10.8	Spike	P	0 - 30
2272265	Endosulfan Sulfate	21.9	Spike	P	0 - 30
2272265	Endrin	21.5	Spike	P	0 - 30
2272265	Endrin Aldehyde	7.05	Spike	P	0 - 30
2272265	Endrin Ketone	4.02	Spike	P	0 - 30
2272265	Esfenvalerate	27.6	Spike	P	0 - 30
2272265	Ethalfluralin	22.7	Spike	P	0 - 30
2272265	Fenpropathrin	24.5	Spike	P	0 - 30
2272265	Gamma-BHC	1.94	Spike	P	0 - 30
2272265	Gamma-Chlordane	32.1	Spike	F	0 - 30
2272265	Heptachlor	28.1	Spike	P	0 - 30
2272265	Heptachlor Epoxide	18.5	Spike	P	0 - 30
2272265	Hexachlorobenzene	14.5	Spike	P	0 - 30
2272265	Kepone	0.578	Spike	P	0 - 30
2272265	Lambda-Cyhalothrin	28.0	Spike	P	0 - 30
2272265	Methoxychlor	20.7	Spike	P	0 - 30
2272265	MGK-264	11.1	Spike	P	0 - 30
2272265	Mirex	35.4	Spike	F	0 - 30
2272265	Permethrin	25.5	Spike	P	0 - 30
2272265	Phenothrin	58.1	Spike	F	0 - 30
2272265	Piperonyl Butoxide	11.2	Spike	P	0 - 30
2272265	Prallethrin	21.4	Spike	P	0 - 30
2272265	Tau-Fluvalinate	13.5	Spike	P	0 - 30
2272265	Tetramethrin	16.7	Spike	P	0 - 30
2272265	Trans-Nonachlor	36.8	Spike	F	0 - 30
2272265	Triclosan Methyl	22.5	Spike	P	0 - 30
2272265	Trifluralin	30.0	Spike	F	0 - 30
LFB	Aldrin	20.3	LCS	P	0 - 30
LFB	Alpha-BHC	8.01	LCS	P	0 - 30
LFB	Alpha-Chlordane	16.2	LCS	P	0 - 30
LFB	Beta-BHC	4.42	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	24.9	LCS	P	0 - 30
LFB	Bifenthrin	4.52	LCS	P	0 - 30
LFB	Chlorothalonil	2.36	LCS	P	0 - 50
LFB	Cis-Nonachlor	3.21	LCS	P	0 - 30
LFB	Cypermethrin	20.1	LCS	P	0 - 30
LFB	Dacthal	10.2	LCS	P	0 - 30
LFB	DDD-p,p'	2.21	LCS	P	0 - 30
LFB	DDE-p,p'	17.1	LCS	P	0 - 30
LFB	DDT-p,p'	17.3	LCS	P	0 - 30
LFB	Delta-BHC	4.21	LCS	P	0 - 30
LFB	Deltamethrin	22.8	LCS	P	0 - 30
LFB	Dichlobenil	8.32	LCS	P	0 - 30
LFB	Dicofol	4.61	LCS	P	0 - 30
LFB	Dieldrin	16.4	LCS	P	0 - 30
LFB	Endosulfan I	12.9	LCS	P	0 - 30
LFB	Endosulfan II	3.64	LCS	P	0 - 30
LFB	Endosulfan Sulfate	2.77	LCS	P	0 - 30
LFB	Endrin	1.91	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P403066

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Endrin Aldehyde	0.992	LCS	P	0 - 30
LFB	Endrin Ketone	1.29	LCS	P	0 - 30
LFB	Esfenvalerate	22.6	LCS	P	0 - 30
LFB	Ethalfluralin	16.4	LCS	P	0 - 30
LFB	Fenpropathrin	17.3	LCS	P	0 - 30
LFB	Gamma-BHC	3.19	LCS	P	0 - 30
LFB	Gamma-Chlordane	15.9	LCS	P	0 - 30
LFB	Heptachlor	18.9	LCS	P	0 - 30
LFB	Heptachlor Epoxide	16.9	LCS	P	0 - 30
LFB	Hexachlorobenzene	16.0	LCS	P	0 - 30
LFB	Kepone	1.44	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	17.6	LCS	P	0 - 30
LFB	Methoxychlor	11.3	LCS	P	0 - 30
LFB	MGK-264	11.7	LCS	P	0 - 30
LFB	Mirex	2.00	LCS	P	0 - 30
LFB	Permethrin	7.58	LCS	P	0 - 30
LFB	Phenothrin	6.29	LCS	P	0 - 30
LFB	Piperonyl Butoxide	6.62	LCS	P	0 - 30
LFB	Prallethrin	14.4	LCS	P	0 - 30
LFB	Tau-Fluvalinate	17.7	LCS	P	0 - 30
LFB	Tetramethrin	15.1	LCS	P	0 - 30
LFB	Trans-Nonachlor	16.4	LCS	P	0 - 30
LFB	Triclosan Methyl	13.9	LCS	P	0 - 30
LFB	Trifluralin	18.8	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P403066

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2272297	Chlordane	0.199	Spike	P	0 - 30
2272297	Toxaphene	11.4	Spike	P	0 - 30
LFB	Chlordane	19.3	LCS	P	0 - 30
LFB	Toxaphene	7.62	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P402974

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2271284	Acesulfame K	2.14	Spike	P	0 - 30
2271284	AMPA	0.789	Spike	P	0 - 30
2271284	Endothall	2.32	Spike	P	0 - 30
2271284	Glufosinate	0.745	Spike	P	0 - 30
2271284	Glyphosate	2.50	Spike	P	0 - 30
2271284	Sucralose	0.483	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P403027

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2271466	2,4-D	7.65	Spike	P	0 - 30
2271466	2,4,5-T	9.54	Spike	P	0 - 30
2271466	Acetaminophen	3.38	Spike	P	0 - 30
2271466	Acetamiprid	8.00	Spike	P	0 - 30
2271466	Afidopyropen	10.3	Spike	P	0 - 30
2271466	Bentazon	11.5	Spike	P	0 - 30
2271466	Benzovindiflupyr	3.81	Spike	P	0 - 30
2271466	Carbamazepine	3.45	Spike	P	0 - 30
2271466	Clothianidin	2.74	Spike	P	0 - 30
2271466	Dinotefuran	7.69	Spike	P	0 - 30
2271466	Diuron	2.22	Spike	P	0 - 30
2271466	Fenuron	3.73	Spike	P	0 - 30
2271466	Fluridone	5.58	Spike	P	0 - 30
2271466	Hydrocodone	11.5	Spike	P	0 - 30
2271466	Ibuprofen	6.74	Spike	P	0 - 30
2271466	Imazapyr	11.0	Spike	P	0 - 30
2271466	Imidacloprid	1.18	Spike	P	0 - 30
2271466	Linuron	25.3	Spike	P	0 - 30
2271466	Mandestrobin	3.39	Spike	P	0 - 30
2271466	MCPP	6.59	Spike	P	0 - 30
2271466	Naproxen	7.15	Spike	P	0 - 30
2271466	Primidone	44.0	Spike	F	0 - 30
2271466	Pyraclostrobin	4.52	Spike	P	0 - 30
2271466	Thiamethoxam	9.47	Spike	P	0 - 30
2271466	Tolfenpyrad	0.0501	Spike	P	0 - 30
2271466	Triclopyr	8.83	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P403053

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2271283	3-Hydroxycarbofuran	3.70	Spike	P	0 - 30
2271283	Aldicarb	1.21	Spike	P	0 - 30
2271283	Aldicarb Sulfone	2.92	Spike	P	0 - 30
2271283	Aldicarb Sulfoxide	0.828	Spike	P	0 - 30
2271283	Carbaryl	0.718	Spike	P	0 - 30
2271283	Carbofuran	2.30	Spike	P	0 - 30
2271283	Methiocarb	2.17	Spike	P	0 - 30
2271283	Methomyl	1.82	Spike	P	0 - 30
2271283	Oxamyl	1.98	Spike	P	0 - 30
2271283	Propoxur	1.36	Spike	P	0 - 30

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

Quality Assurance Report
Surrogates

Lab Sample ID: 2272464
Field Sample ID: AF65709

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	90.7	P	30 - 160

Lab Sample ID: 2272465
Field Sample ID: AF65709

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	98.4	P	30 - 160
EPA 8321B	Acetaminophen-d4	55.3	P	30 - 160
EPA 8321B	Carbamazepine-d10	77.1	P	30 - 160
EPA 8321B	Diuron-d6	77.4	P	30 - 160
EPA 8321B	Endothall-d6	135	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	81.5	P	30 - 160
EPA 8321B	Ibuprofen-d3	31.4	P	30 - 160
EPA 8321B	Primidone-d5	34.0	P	30 - 160
EPA 8321B	Sucralose-d6	113	P	30 - 160

Lab Sample ID: 2272466
Field Sample ID: AF65709

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	60.5	P	35 - 120
EPA 8270E	Tetrachloro-m-xylene	52.1	P	30 - 110
EPA 8276	Decachlorobiphenyl	60.6	P	29 - 92.0
EPA 8276	PCNB	69.0	P	43 - 134

Lab Sample ID: 2272467
Field Sample ID: AF65709

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	78.2	P	20 - 200
EPA 8270E	Simazine-d10	135	P	73 - 135
EPA 8270E	Terbufos-d10	136	F	58 - 130

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A107519
Included Lab Sample IDs: 2272465

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	78.1		P	60 - 160
Glufosinate	99.7		P	60 - 160
Glyphosate	101		P	60 - 160

Reference Method: EPA 8321B
Run ID: A107530
Included Lab Sample IDs: 2272465

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	103	74.6	P/P	60 - 160
Endothall	82.6	105	P/P	60 - 160
Sucralose	97.4	101	P/P	60 - 160

Reference Method: EPA 8270E
Run ID: A107610
Included Lab Sample IDs: 2272466

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	97.8		P	80 - 120
Alpha-BHC	98.5		P	80 - 120
Alpha-Chlordane	104		P	80 - 120
Beta-BHC	95.4		P	80 - 120
Beta-Cyfluthrin	100		P	80 - 120
Bifenthrin	100		P	80 - 120
Chlorothalonil	88.9		P	80 - 120
Cis-Nonachlor	101		P	80 - 120
Cypermethrin	101		P	80 - 120
Dacthal	99.2		P	80 - 120
DDD-p,p'	98.6		P	80 - 120
DDE-p,p'	100		P	80 - 120
DDT-p,p'	95.6		P	80 - 120
Delta-BHC	93.2		P	80 - 120
Deltamethrin	97.9		P	80 - 120
Dichlobenil	95.3		P	80 - 120
Dicofol	98.4		P	80 - 120
Dieldrin	104		P	80 - 120
Endosulfan I	96.9		P	80 - 120
Endosulfan II	97.3		P	80 - 120
Endosulfan Sulfate	93.0		P	80 - 120
Endrin	100		P	80 - 120
Endrin Aldehyde	99.0		P	80 - 120
Endrin Ketone	98.6		P	80 - 120
Esfenvalerate	102		P	80 - 120
Ethalfluralin	96.5		P	80 - 120
Fenpropathrin	102		P	80 - 120
Gamma-BHC	98.7		P	80 - 120
Gamma-Chlordane	100		P	80 - 120
Heptachlor	104		P	80 - 120
Heptachlor Epoxide	99.5		P	80 - 120
Hexachlorobenzene	97.0		P	80 - 120
Kepone	69.7*		F	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A107610
Included Lab Sample IDs: 2272466

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Lambda-Cyhalothrin	103		P	80 - 120
Methoxychlor	101		P	80 - 120
MGK-264	103		P	80 - 120
Mirex	94.6		P	80 - 120
Permethrin	103		P	80 - 120
Phenothrin	101		P	80 - 120
Piperonyl Butoxide	101		P	80 - 120
Prallethrin	97.3		P	80 - 120
Tau-Fluvalinate	99.8		P	80 - 120
Tetramethrin	110		P	80 - 120
Trans-Nonachlor	98.6		P	80 - 120
Triclosan Methyl	99.3		P	80 - 120
Trifluralin	94.5		P	80 - 120

Reference Method: EPA 8270E
Run ID: A107657
Included Lab Sample IDs: 2272467

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	98.2		P	80 - 120
Alachlor	102		P	80 - 120
Ametryn	110		P	80 - 120
Atrazine	103		P	80 - 120
Atrazine Desethyl	91.9		P	80 - 120
Azinphos Methyl	98.9		P	80 - 120
Azoxystrobin	98.3		P	80 - 120
Bromacil	97.3		P	80 - 120
Butylate	99.9		P	80 - 120
Caffeine	81.8		P	80 - 120
Carbophenothion	106		P	80 - 120
Carfentrazone Ethyl	106		P	80 - 120
Chlorpyrifos Ethyl	106		P	80 - 120
Chlorpyrifos Methyl	101		P	80 - 120
Cyanazine	110		P	80 - 120
Demeton	89.1		P	80 - 120
Diazinon	100		P	80 - 120
Difenoconazole	90.5		P	80 - 120
Dimethenamid	101		P	80 - 120
Disulfoton	88.0		P	80 - 120
Dithiopyr	101		P	80 - 120
EPTC	99.3		P	80 - 120
Ethion	97.4		P	80 - 120
Ethoprop	97.4		P	80 - 120
Fenamiphos	99.5		P	80 - 120
Fenbuconazole	95.2		P	80 - 120
Fipronil	94.7		P	80 - 120
Fipronil Desulfinyl	101		P	80 - 120
Fipronil Sulfide	99.1		P	80 - 120
Fipronil Sulfone	101		P	80 - 120
Fluazifop-P-butyl	100		P	80 - 120
Fludioxonil	98.1		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A107657
Included Lab Sample IDs: 2272467

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Flumioxazin	88.4		P	80 - 120
Flutolanil	103		P	80 - 120
Fluxapyroxad	103		P	80 - 120
Fonofos	104		P	80 - 120
Hexazinone	97.9		P	80 - 120
Imazalil	94.6		P	80 - 120
Iprodione	103		P	80 - 120
Malathion	101		P	80 - 120
Metalaxyl	108		P	80 - 120
Metolachlor	107		P	80 - 120
Metribuzin	96.7		P	80 - 120
Mevinphos	90.6		P	80 - 120
Molinate	98.9		P	80 - 120
Myclobutanil	104		P	80 - 120
Naled	102		P	80 - 120
Norflurazon	102		P	80 - 120
Oxyfluorfen	104		P	80 - 120
Parathion Ethyl	98.7		P	80 - 120
Parathion Methyl	102		P	80 - 120
Pendimethalin	94.4		P	80 - 120
Phorate	104		P	80 - 120
Prodiamine	99.9		P	80 - 120
Prometon	100		P	80 - 120
Prometryn	104		P	80 - 120
Pronamide	91.3		P	80 - 120
Propiconazole	105		P	80 - 120
Pyriproxyfen	104		P	80 - 120
Simazine	107		P	80 - 120
Tebuconazole	110		P	80 - 120
Terbufos	100		P	80 - 120
Terbuthylazine	101		P	80 - 120

Reference Method: EPA 8270E
Run ID: A107659
Included Lab Sample IDs: 2272467

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Oxadiazon	105		P	80 - 120
Sulfentrazone	105		P	80 - 120

Reference Method: EPA 8321B
Run ID: A107667
Included Lab Sample IDs: 2272464

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	116	115	P/P	60 - 150
Aldicarb	103	101	P/P	60 - 150
Aldicarb Sulfone	100	112	P/P	50 - 150
Aldicarb Sulfoxide	97.9	97.5	P/P	50 - 150
Bentazon	104	112	P/P	50 - 160
Carbaryl	112	115	P/P	60 - 150

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A107667
Included Lab Sample IDs: 2272464

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Carbofuran	104	105	P/P	50 - 150
Methiocarb	97.7	107	P/P	50 - 150
Methomyl	103	98.3	P/P	50 - 150
Oxamyl	94.4	102	P/P	50 - 150
Propoxur	108	117	P/P	50 - 150

Reference Method: EPA 8321B
Run ID: A107670
Included Lab Sample IDs: 2272465

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	116	70.1	P/P	50 - 150
2,4,5-T	93.3	88.9	P/P	50 - 150
Acetaminophen	110	104	P/P	60 - 160
Acetamiprid	111	109	P/P	50 - 150
Afidopyropen	109	112	P/P	50 - 150
Benzovindiflupyr	110	107	P/P	50 - 150
Carbamazepine	116	110	P/P	60 - 150
Clothianidin	118	107	P/P	60 - 150
Dinotefuran	101	103	P/P	50 - 150
Diuron	105	112	P/P	60 - 160
Fenuron	104	101	P/P	60 - 150
Fluridone	110	106	P/P	60 - 160
Hydrocodone	100	96.6	P/P	60 - 150
Ibuprofen	68.9	96.1	P/P	50 - 160
Imazapyr	89.9	105	P/P	50 - 150
Imidacloprid	110	114	P/P	60 - 150
Linuron	99.3	104	P/P	60 - 150
Mandestrobin	105	108	P/P	50 - 150
MCPP	110	99.6	P/P	50 - 150
Naproxen	120	80.2	P/P	50 - 160
Primidone	117	102	P/P	60 - 150
Pyraclostrobin	112	109	P/P	60 - 150
Thiamethoxam	111	114	P/P	50 - 150
Tolfenpyrad	107	105	P/P	60 - 150
Triclopyr	112	94.6	P/P	50 - 150

Reference Method: EPA 8276
Run ID: A107693
Included Lab Sample IDs: 2272466

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	97.1		P	80 - 120
Toxaphene	86.1		P	80 - 120

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

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270E	Acetochlor	102	119	95.0	104	15.5		9.03
	Alachlor	98.2	113	95.6	101	13.8		5.65
	Aldrin	29.6	36.3	31.2	47.2	20.3		41.0
	Alpha-BHC	87.3	94.6	91.9	91.7	8.01		0.134
	Alpha-Chlordane	53.0	62.4	60.1	79.2	16.2		27.5
	Ametryn	114	125	82.0	97.1	9.32		8.93
	Atrazine	98.9	103			3.86		1.04
	Atrazine Desethyl	85.8	87.1	99.7	111	1.57		10.7
	Azinphos Methyl	127	125	102	102	1.26		0.373
	Azoxystrobin	106	112	136	131	4.81		3.44
	Beta-BHC	110	115	126	141	4.42		10.7
	Beta-Cyfluthrin	93.1	72.5	52.1	74.8	24.9		25.6
	Bifenthrin	55.5	58.1	55.7	63.1	4.52		12.5
	Bromacil	54.6	58.0	97.3	106	5.93		8.69
	Butylate	60.5	66.7	57.8	57.8	9.84		0.0130
	Caffeine	75.3	71.0	60.8	62.2	5.83		1.40
	Carbophenothion	99.7	113	101	93.7	12.0		7.90
	Carfentrazone Ethyl	114	120	98.4	81.0	5.61		19.4
	Chlorothalonil	114	112	154	123	2.36		23.0
	Chlorpyrifos Ethyl	95.3	105	96.7	95.3	9.34		1.51
	Chlorpyrifos Methyl	98.2	113	107	101	14.2		6.41
	Cis-Nonachlor	48.5	50.1	40.1	55.9	3.21		28.6
	Cyanazine	141	153	133	125	8.55		6.10
	Cypermethrin	83.9	68.6	38.2	62.4	20.1		31.3
	Dacthal	84.5	93.5	93.4	98.9	10.2		5.79
	DDD-p,p'	58.1	59.4	59.3	76.2	2.21		24.9
	DDE-p,p'	54.6	64.8	60.4	80.2	17.1		28.2
	DDT-p,p'	50.9	60.5	57.0	74.2	17.3		26.1
	Delta-BHC	108	113	133	140	4.21		5.11
	Deltamethrin	102	81.3	37.0	64.8	22.8		38.7
	Demeton	102	99.8	124	133	2.62		7.58
	Diazinon	107	106	114	113	1.70		0.538
	Dichlobenil	84.3	91.6	76.0	71.2	8.32		6.43
	Dicofol	57.1	54.5	62.1	68.9	4.61		10.4
	Dieldrin	60.6	71.5	69.4	87.7	16.4		23.3
	Difenoconazole	154	157	138	137	2.38		1.14
	Dimethenamid	80.4	94.7	75.9	77.3	16.3		1.84
	Disulfoton	90.2	89.3	101	97.3	0.999		3.66
	Dithiopyr	96.7	103	96.1	90.4	6.09		5.67
	Endosulfan I	59.8	68.1	70.7	83.4	12.9		16.4
	Endosulfan II	75.3	72.6	79.2	88.2	3.64		10.8
	Endosulfan Sulfate	83.3	81.0	77.8	96.9	2.77		21.9
	Endrin	57.1	58.2	60.5	75.1	1.91		21.5
	Endrin Aldehyde	69.6	70.3	57.9	62.2	0.992		7.05
	Endrin Ketone	87.9	86.8	87.2	90.8	1.29		4.02
	EPTC	64.9	65.9	57.0	53.4	1.50		6.58
	Esfenvalerate	103	81.8	38.7	61.2	22.6		27.6
	Ethalfluralin	49.0	57.7	54.9	69.0	16.4		22.7
	Ethion	85.5	92.5	66.9	59.7	7.88		11.4
	Ethoprop	87.4	94.1	104	98.5	7.48		5.56
	Fenamiphos	94.6	100	67.0	66.2	5.70		1.09
	Fenbuconazole	112	118	98.8	101	5.52		1.58
	Fenpropathrin	54.7	65.1	56.8	72.7	17.3		24.5
	Fipronil	104	113	105	100	8.49		4.28

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270E	Fipronil Desulfinyl	109	125	115	105	13.3		8.76
	Fipronil Sulfide	88.4	103	99.9	96.4	15.0		3.23
	Fipronil Sulfone	84.9	92.4	99.4	94.7	8.38		4.79
	Fluazifop-P-butyl	95.7	106	99.3	93.4	10.5		6.14
	Fludioxonil	108	114	95.2	95.0	5.16		0.218
	Flumioxazin	136	138	137	141	1.19		3.23
	Flutolanil	97.0	102	83.1	86.9	5.23		4.47
	Fluxapyroxad	91.1	93.0	82.1	82.2	2.10		0.0859
	Fonofos	85.7	93.7	108	104	8.94		3.46
	Gamma-BHC	93.3	96.3	106	108	3.19		1.94
	Gamma-Chlordane	48.7	57.2	46.2	66.4	15.9		32.1
	Heptachlor	43.6	52.8	45.7	60.7	18.9		28.1
	Heptachlor Epoxide	60.7	71.9	70.0	84.3	16.9		18.5
	Hexachlorobenzene	47.3	55.5	53.3	61.7	16.0		14.5
	Hexazinone	102	104			1.42		3.45
	Imazalil	85.0	103	166	160	19.0		4.12
	Iprodione	103	111	86.3	89.2	7.38		3.29
	Kepone	75.6	76.7	60.8	60.0	1.44		0.578
	Lambda-Cyhalothrin	101	84.6	21.0	44.2	17.6		28.0
	Malathion	108	114	114	112	5.94		2.08
	Metalaxyl	100	108	107	106	6.82		0.679
	Methoxychlor	60.5	67.8	63.8	78.5	11.3		20.7
	Metolachlor	94.5	101			6.98		1.85
	Metribuzin	86.8	90.8	61.8	100	4.53		29.0
	Mevinphos	85.1	82.7	93.8	98.7	2.89		5.01
	MGK-264	79.3	89.1	86.6	96.8	11.7		11.1
	Mirex	34.3	35.0	36.6	52.4	2.00		35.4
	Molinate	59.3	65.8	61.2	51.9	10.3		16.5
	Myclobutanil	102	106	96.0	97.6	4.36		1.62
	Naled	42.5	43.7	36.5	40.4	2.78		10.2
	Norflurazon	97.6	105			7.00		3.36
	Oxadiazon	88.4	92.2			4.20		3.59
	Oxyfluorfen	109	109	112	118	0.0148		5.06
	Parathion Ethyl	89.6	98.2	103	103	9.13		0.413
	Parathion Methyl	103	116	118	114	11.3		3.31
	Pendimethalin	75.1	81.4	91.1	90.3	7.99		0.908
	Permethrin	77.5	71.9	68.2	88.2	7.58		25.5
	Phenothrin	35.1	33.0	27.7	50.3	6.29		58.1
	Phorate	78.8	78.2	89.3	88.7	0.844		0.722
	Piperonyl Butoxide	91.3	85.5	84.6	94.6	6.62		11.2
	Prallethrin	60.3	69.7	81.6	101	14.4		21.4
	Prodiamine	36.4	35.6	45.1	46.9	2.26		4.08
	Prometon	95.2	94.5	88.0	87.3	0.658		0.755
	Prometryn	96.0	101	99.5	103	4.99		3.27
	Pronamide	101	98.6	92.7	96.2	2.67		3.72
	Propiconazole	95.0	105	79.5	80.2	10.4		0.561
	Pyriproxyfen	95.3	97.7	67.5	75.7	2.52		11.5
	Simazine	101	112	112	98.3	10.0		9.86
	Sulfentrazone	93.4	96.9	84.1	79.8	3.61		3.47
	Tau-Fluvalinate	72.6	60.8	66.1	75.7	17.7		13.5
	Tebuconazole	83.6	90.5	62.5	55.8	7.94		11.3
	Terbufos	103	109	129	123	5.63		4.68
	Terbuthylazine	96.0	96.2	97.0	98.9	0.119		1.98
	Tetramethrin	71.5	83.2	62.2	73.5	15.1		16.7

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270E	Trans-Nonachlor	48.6	57.2	49.4	71.7	16.4		36.8
	Triclosan Methyl	63.4	72.8	71.5	89.6	13.9		22.5
	Trifluralin	45.8	55.3	51.7	70.0	18.8		30.0
EPA 8276	Chlordane	81.1	66.8	92.7	92.8	19.3		0.199
	Toxaphene	59.5	55.1	76.1	85.3	7.62		11.4
EPA 8321B	2,4-D	92.8		105	96.8			7.65
	2,4,5-T	106		111	101			9.54
	3-Hydroxycarbofuran	85.4		73.4	70.7			3.70
	Acesulfame K	78.6		56.7	57.9			2.14
	Acetaminophen	80.2		81.5	84.3			3.38
	Acetamiprid	96.1		91.7	84.6			8.00
	Afidopyropen	83.2		111	99.8			10.3
	Aldicarb	85.4		50.8	50.2			1.21
	Aldicarb Sulfone	96.8		80.0	82.3			2.92
	Aldicarb Sulfoxide	92.9		40.0	40.4			0.828
	AMPA	82.4		91.0	91.7			0.789
	Bentazon	119						11.5
	Benzovindiflupyr	94.7		92.0	95.7			3.81
	Carbamazepine	85.8		88.7	92.1			3.45
	Carbaryl	84.8		73.5	74.0			0.718
	Carbofuran	88.1		79.6	77.8			2.30
	Clothianidin	98.4		68.7	70.6			2.74
	Dinotefuran	84.8						7.69
	Diuron	79.0		89.8	87.8			2.22
	Endothall	68.1		101	103			2.32
	Fenuron	94.5		99.3	95.6			3.73
	Fluridone	100		94.8	100			5.58
	Glufosinate	105		107	106			0.745
	Glyphosate	107		108	110			2.50
	Hydrocodone	77.7		98.2	87.5			11.5
	Ibuprofen	54.6		70.5	65.9			6.74
	Imazapyr	85.0						11.0
	Imidacloprid	97.3		92.3	91.1			1.18
	Linuron	83.9		99.3	77.0			25.3
	Mandestrobin	95.1		104	101			3.39
	MCPP	91.7		118	110			6.59
	Methiocarb	77.2		77.5	75.9			2.17
	Methomyl	93.8		90.1	88.5			1.82
	Naproxen	98.6		94.3	87.8			7.15
	Oxamyl	88.8		84.2	82.6			1.98
	Primidone	84.9		32.3	50.6			44.0
	Propoxur	89.7		80.6	81.7			1.36
	Pyraclostrobin	87.5		91.3	87.3			4.52
	Sucralose	90.2		93.6	94.0			0.483
	Thiamethoxam	92.7		99.5	90.5			9.47
	Tolfenpyrad	51.5		52.1	52.1			0.0501
	Triclopyr	97.3		106	96.9			8.83

Reference Method Descriptions

Method	Description	Associated Samples
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2272466
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2272467

Reference Method Descriptions

Method	Description	Associated Samples
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2272466
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2272464
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2272465

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8270E	08/27/2021	08/30/2021 08:00	Rasheda Ghaffari	09/01/2021 20:45	Michael Poppell	2272467
	08/27/2021	08/30/2021 08:00	Rasheda Ghaffari	09/04/2021 19:01	Michael Poppell	2272467
	08/27/2021	08/31/2021 08:00	Fe-Val Siddell	09/02/2021 04:53	Arthur Maknenko	2272466
EPA 8276	08/27/2021	08/31/2021 08:00	Fe-Val Siddell	09/04/2021 13:52	Julie Wi	2272466
EPA 8321B	08/27/2021	08/27/2021 11:30	Juyoung Kim	08/27/2021 14:31	Juyoung Kim	2272465
	08/27/2021	08/27/2021 11:30	Juyoung Kim	08/30/2021 10:28	Juyoung Kim	2272465
	08/27/2021	08/27/2021 14:00	Hoor Shaik	08/28/2021 09:17	Juyoung Kim	2272465
	08/27/2021	08/27/2021 14:00	Hoor Shaik	09/07/2021 21:05	Juyoung Kim	2272465
	08/27/2021	08/30/2021 09:00	Hoor Shaik	09/08/2021 04:00	Juyoung Kim	2272464