

Chemical Analysis Report

TLH-ROC-2021-07-28-02

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

Event Description: **Run 16**
Request ID: **RQ-2021-07-26-56**
Customer: **TLH-ROC**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
2600 Blair Stone Rd
Tallahassee, FL 32399
Attn: Michael Eckles

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

Date Certified: 17-AUG-2021 15:12

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line above the "T" and a long horizontal stroke at the end.

Case Narrative

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

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

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

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

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

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

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

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

Precision is reported as relative percent difference unless otherwise noted.

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

QC Codes used in this report may include:

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

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

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

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

Sample Location: Big Creek @ CR 2224

Collection Date/Time: 07/28/2021 10:20

Field ID: G1TLHR0057

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2265663	EPA 8321B	Aldicarb	0.020	U	ug/L	P401862	MS
		Aldicarb Sulfone	0.0020	U	ug/L	P401862	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P401862	
		Carbaryl	0.0020	U	ug/L	P401862	
		Carbofuran	0.0020	U	ug/L	P401862	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P401862	
		Methiocarb	0.0020	U	ug/L	P401862	
		Methomyl	0.0020	U	ug/L	P401862	
		Oxamyl	0.0020	U	ug/L	P401862	
		Propoxur	0.0020	U	ug/L	P401862	
2265664		2,4-D	0.0020	U	ug/L	P401633	
		Acesulfame K	0.10	U	ug/L	P401536	
		2,4,5-T	0.0040	U	ug/L	P401633	
		AMPA	0.10	U	ug/L	P401536	
		Acetaminophen	0.0080	U	ug/L	P401633	
		Acetamiprid	0.0020	U	ug/L	P401633	
		Endothall	0.25	U	ug/L	P401536	
		Glufosinate	0.10	U	ug/L	P401536	
		Glyphosate	0.10	U	ug/L	P401536	
		Afidopyropen	0.0020	U	ug/L	P401633	
		Bentazon	8.0E-04	U	ug/L	P401633	
		Sucralose	0.023	I	ug/L	P401536	
		Benzovindiflupyr	0.0020	U	ug/L	P401633	
		Carbamazepine	8.0E-04	U	ug/L	P401633	
		Clothianidin	0.0020	U	ug/L	P401633	
		Dinotefuran	0.0020	U	ug/L	P401633	
		Diuron	0.0020	U	ug/L	P401633	
		Fenuron	0.016	U	ug/L	P401633	
		Fluridone	8.0E-04	U	ug/L	P401633	
		Imazapyr	0.0068	I	ug/L	P401633	
		Hydrocodone	0.0020	U	ug/L	P401633	
		Ibuprofen	0.020	U	ug/L	P401633	
		Imidacloprid	0.0020	U	ug/L	P401633	
		Linuron	0.0040	U	ug/L	P401633	
		Mandestrobin	0.0020	U	ug/L	P401633	
		MCP	0.0020	U	ug/L	P401633	
		Naproxen	0.0080	U	ug/L	P401633	
		Primidone	0.0040	U	ug/L	P401633	
		Pyraclostrobin	0.0020	U	ug/L	P401633	
		Thiamethoxam	0.0020	U	ug/L	P401633	
		Tolfenpyrad	0.0020	U	ug/L	P401633	
		Triclopyr	0.0040	U	ug/L	P401633	
2265665	EPA 8270E	Aldrin	0.70	UJ	ng/L	P401662	LCS, RPD
		Alpha-BHC	0.11	U	ng/L	P401662	

Field ID: G1TLHR0057

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2265665	EPA 8270E	Alpha-Chlordane	0.22	U	ng/L	P401662	
		Beta-BHC	0.11	U	ng/L	P401662	
		Beta-Cyfluthrin**	1.4	U	ng/L	P401662	
		Bifenthrin**	0.54	U	ng/L	P401662	
		Chlorothalonil	0.59	I	ng/L	P401662	
		Cis-Nonachlor**	0.22	U	ng/L	P401662	
		Cypermethrin	1.6	U	ng/L	P401662	
		Dacthal**	0.16	U	ng/L	P401662	
		DDD-p,p'	0.27	U	ng/L	P401662	
		DDE-p,p'	0.22	U	ng/L	P401662	MS
		DDT-p,p'	0.27	U	ng/L	P401662	
		Delta-BHC	0.43	U	ng/L	P401662	
		Deltamethrin**	1.4	U	ng/L	P401662	
		Dichlobenil**	0.11	U	ng/L	P401662	
		Dicofol	1.4	U	ng/L	P401662	
		Dieldrin	0.43	U	ng/L	P401662	
		Endosulfan I	0.43	U	ng/L	P401662	
		Endosulfan II	0.43	U	ng/L	P401662	
		Endosulfan Sulfate	0.32	U	ng/L	P401662	
		Endrin	0.43	U	ng/L	P401662	
		Endrin Aldehyde	0.81	U	ng/L	P401662	
		Endrin Ketone	0.43	U	ng/L	P401662	
		Esfenvalerate**	0.81	U	ng/L	P401662	MS
		Ethalfuralin**	0.16	U	ng/L	P401662	
		Fenpropathrin**	0.27	U	ng/L	P401662	
		Gamma-BHC	0.14	U	ng/L	P401662	
		Gamma-Chlordane	0.23	I	ng/L	P401662	
		Heptachlor	0.22	U	ng/L	P401662	
		Heptachlor Epoxide	0.27	U	ng/L	P401662	
		Hexachlorobenzene	1.1	U	ng/L	P401662	
		Kepone**	5.4	U	ng/L	P401662	
		Lambda-Cyhalothrin**	0.81	U	ng/L	P401662	
		Methoxychlor	0.32	U	ng/L	P401662	
		MGK-264**	0.22	UJ	ng/L	P401662	RPD
		Mirex	0.76	U	ng/L	P401662	
		Permethrin	1.7	U	ng/L	P401662	
		Phenothrin**	1.6	IJ	ng/L	P401662	RPD
		Piperonyl Butoxide**	0.16	U	ng/L	P401662	
		Prallethrin**	2.2	UJ	ng/L	P401662	RPD
		Tau-Fluvalinate**	0.27	U	ng/L	P401662	
		Tetramethrin**	0.81	UJ	ng/L	P401662	LCS, RPD
		Trans-Nonachlor**	0.22	U	ng/L	P401662	
		Triclosan Methyl**	0.16	U	ng/L	P401662	
		Trifluralin	0.22	U	ng/L	P401662	
	EPA 8276	Chlordane	5.4	U	ng/L	P401662	

Field ID: G1TLHR0057

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2265665	EPA 8276	Toxaphene	32	U	ng/L	P401662	
2265666	EPA 8270E	Acetochlor	0.24	U	ng/L	P401725	
		Alachlor	0.24	U	ng/L	P401725	
		Ametryn	0.58	U	ng/L	P401725	
		Atrazine	0.24	U	ng/L	P401725	
		Atrazine Desethyl	1.5	U	ng/L	P401725	
		Azinphos Methyl	1.9	U	ng/L	P401725	
		Azoxystrobin**	0.49	U	ng/L	P401725	
		Bromacil	0.49	U	ng/L	P401725	
		Butylate	0.39	U	ng/L	P401725	
		Caffeine**	7.3	U	ng/L	P401725	
		Carbophenothion	0.49	U	ng/L	P401725	
		Carfentrazone Ethyl**	0.097	U	ng/L	P401725	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P401725	
		Chlorpyrifos Methyl	0.049	U	ng/L	P401725	
		Cyanazine	3.2	U	ng/L	P401725	
		Demeton	1.5	U	ng/L	P401725	
		Diazinon	0.12	U	ng/L	P401725	
		Difenoconazole**	0.58	U	ng/L	P401725	
		Dimethenamid**	0.097	U	ng/L	P401725	
		Disulfoton	0.49	U	ng/L	P401725	
		Dithiopyr**	0.17	U	ng/L	P401725	
		EPTC	1.2	U	ng/L	P401725	
		Ethion	0.15	U	ng/L	P401725	
		Ethoprop	0.097	U	ng/L	P401725	
		Fenamiphos	0.49	U	ng/L	P401725	
		Fenbuconazole**	0.12	U	ng/L	P401725	
		Fipronil	0.24	U	ng/L	P401725	
		Fipronil Desulfinyl**	0.12	U	ng/L	P401725	
		Fipronil Sulfide	0.15	U	ng/L	P401725	
		Fipronil Sulfone	0.15	U	ng/L	P401725	
		Fluazifop-P-butyl**	0.097	U	ng/L	P401725	
		Fludioxonil**	0.12	U	ng/L	P401725	
		Flumioxazin**	1.7	U	ng/L	P401725	
		Flutolanil**	0.20	I	ng/L	P401725	
		Fluxapyroxad**	0.097	U	ng/L	P401725	
		Fonofos	0.19	U	ng/L	P401725	
		Hexazinone	46		ng/L	P401725	
		Imazalil**	0.73	U	ng/L	P401725	
		Iprodione**	0.58	UJ	ng/L	P401725	LCS
		Malathion	0.34	U	ng/L	P401725	
		Metalaxyl	0.73	U	ng/L	P401725	
		Metolachlor	0.34	U	ng/L	P401725	
		Metribuzin	3.2	U	ng/L	P401725	
		Mevinphos	1.0	U	ng/L	P401725	

Field ID: G1TLHR0057

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2265666	EPA 8270E	Molinate	0.29	U	ng/L	P401725	
		Myclobutanil**	0.24	U	ng/L	P401725	
		Naled**	1.5	UJ	ng/L	P401725	LCS
		Norflurazon	0.49	U	ng/L	P401725	
		Oxadiazon	0.29	U	ng/L	P401725	
		Oxyfluorfen**	0.15	U	ng/L	P401725	
		Parathion Ethyl	0.24	U	ng/L	P401725	
		Parathion Methyl	0.54	U	ng/L	P401725	
		Pendimethalin	0.97	U	ng/L	P401725	
		Phorate	0.51	U	ng/L	P401725	
		Prodiamine**	0.17	U	ng/L	P401725	
		Prometon	0.88	U	ng/L	P401725	
		Prometryn	0.19	U	ng/L	P401725	
		Pronamide**	0.15	U	ng/L	P401725	
		Propiconazole**	0.49	U	ng/L	P401725	
		Pyriproxyfen**	0.12	U	ng/L	P401725	
		Simazine	0.49	U	ng/L	P401725	
		Sulfentrazone**	0.49	U	ng/L	P401725	
		Tebuconazole**	0.49	U	ng/L	P401725	
		Terbufos	0.097	U	ng/L	P401725	
		Terbutylazine	0.41	U	ng/L	P401725	
2265668	EPA 200.7 Rev. 4.4	Barium	5.9		ug/L	P401825	
		Calcium	2.17		mg/L	P402167	
		Iron	360		ug/L	P401825	
		Magnesium	0.44		mg/L	P402167	
		Manganese	10.1		ug/L	P401825	
		Potassium	0.30	U	mg/L	P401825	
		Sodium	1.4	I	mg/L	P401825	
		Zinc	7.7	I	ug/L	P401825	
	EPA 200.8 Rev. 5.4	Aluminum	310		ug/L	P401825	
		Antimony	0.050	U	ug/L	P401825	
		Arsenic	0.33		ug/L	P401825	
		Beryllium	0.018	I	ug/L	P401825	
		Boron**	9.1		ug/L	P401825	
		Cadmium	0.020	U	ug/L	P401825	
		Chromium	0.43	I	ug/L	P401825	
		Copper	0.55	I	ug/L	P402167	
		Lead	0.46		ug/L	P401825	
		Nickel	0.50	U	ug/L	P401825	
		Selenium	0.20	U	ug/L	P401825	
	SM 2340B	Silver	0.010	U	ug/L	P401825	
		Thallium	0.10	U	ug/L	P401825	
		Hardness	7.2		mg/L	P402167	

Field ID: G1TLHR0057

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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Ref. Method and Comment:
EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8270E: MS accuracy for several 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.

Sample Location: Mosquito Creek @ Jinks Crossing Rd

Collection Date/Time: 07/28/2021 12:00

Field ID: G2TLHR0092

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2265667	EPA 8276	Chlordane	5.3	U	ng/L	P401662	
		Toxaphene	32	U	ng/L	P401662	
2265669	EPA 200.7 Rev. 4.4	Barium	27.0		ug/L	P401825	
		Calcium	7.63		mg/L	P401825	
		Iron	890		ug/L	P401825	
		Magnesium	3.26		mg/L	P401825	
		Manganese	49.4		ug/L	P401825	
		Potassium	0.77	I	mg/L	P401825	
		Sodium	2.6		mg/L	P401825	
		Zinc	7.4	I	ug/L	P401825	
	EPA 200.8 Rev. 5.4	Aluminum	246		ug/L	P401825	
		Antimony	0.050	U	ug/L	P401825	
		Arsenic	0.66		ug/L	P401825	
		Beryllium	0.020	I	ug/L	P401825	
		Boron**	12.7		ug/L	P401825	
		Cadmium	0.020	U	ug/L	P401825	
		Chromium	0.50	I	ug/L	P401825	
		Copper	0.83		ug/L	P402243	
		Lead	0.45		ug/L	P401825	
		Nickel	0.50	U	ug/L	P401825	
	SM 2340B	Selenium	0.20	U	ug/L	P401825	
		Silver	0.010	U	ug/L	P401825	
		Thallium	0.10	U	ug/L	P401825	
		Hardness	32.5		mg/L	P401825	

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P401825

Component	Result	Code	Units
Barium	1.0	U	ug/L
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Manganese	1.0	U	ug/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P402167

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Magnesium	0.040	U	mg/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P401825

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Beryllium	0.010	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Lead	0.20	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P402167

Component	Result	Code	Units
Copper	0.40	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P402243

Component	Result	Code	Units
Copper	0.40	U	ug/L

Reference Method: EPA 8270E
Batch ID: P401662

Component	Result	Code	Units
Aldrin	0.65	U	ng/L
Aldrin	0.65	U	ng/L
Alpha-BHC	0.10	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E
Batch ID: P401662

Component	Result	Code	Units
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
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
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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P401662

Component	Result	Code	Units
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
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 8270E

Batch ID: P401725

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P401725

Component	Result	Code	Units
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	18	I	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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P401725

Component	Result	Code	Units
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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P401725

Component	Result	Code	Units
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 8276

Batch ID: P401662

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: P401536

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: P401633

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P401633

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

Reference Method: EPA 8321B

Batch ID: P401862

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 200.7 Rev. 4.4
Batch ID: P401825

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	98.9		P	85 - 115
Calcium	98.0		P	85 - 115
Iron	100		P	85 - 115
Magnesium	103		P	85 - 115
Manganese	98.9		P	85 - 115
Potassium	95.9		P	85 - 115
Sodium	101		P	85 - 115
Zinc	97.8		P	85 - 115

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P402167

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	104		P	85 - 115
Magnesium	105		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P401825

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	103		P	85 - 115
Antimony	106		P	85 - 115
Arsenic	102		P	85 - 115
Beryllium	102		P	85 - 115
Boron	104		P	85 - 115
Cadmium	103		P	85 - 115
Chromium	103		P	85 - 115
Lead	101		P	85 - 115
Nickel	105		P	85 - 115
Selenium	102		P	85 - 115
Silver	102		P	85 - 115
Thallium	106		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P402167

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Copper	95.8		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P402243

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Copper	96.7		P	85 - 115

Reference Method: EPA 8270E
Batch ID: P401662

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	9.05	31.5	F/P	20 - 150
Alpha-BHC	87.8	88.0	P/P	50 - 150
Alpha-Chlordane	80.8	83.1	P/P	50 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P401662

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Beta-BHC	105	105	P/P	50 - 150
Beta-Cyfluthrin	144	130	P/P	50 - 150
Bifenthrin	72.4	76.2	P/P	40 - 150
Chlorothalonil	140	134	P/P	20 - 150
Cis-Nonachlor	81.5	81.5	P/P	50 - 150
Cypermethrin	128	115	P/P	50 - 150
Dacthal	94.1	95.5	P/P	50 - 150
DDD-p,p'	79.1	80.5	P/P	50 - 150
DDE-p,p'	74.1	77.4	P/P	50 - 150
DDT-p,p'	81.0	84.0	P/P	50 - 150
Delta-BHC	116	116	P/P	50 - 150
Deltamethrin	144	129	P/P	50 - 150
Dichlobenil	41.6	45.7	P/P	40 - 150
Dicofol	87.1	86.9	P/P	50 - 150
Dieldrin	86.0	89.7	P/P	50 - 150
Endosulfan I	82.2	86.4	P/P	50 - 150
Endosulfan II	88.1	85.5	P/P	50 - 150
Endosulfan Sulfate	101	99.2	P/P	50 - 150
Endrin	81.4	81.8	P/P	50 - 150
Endrin Aldehyde	82.6	73.4	P/P	50 - 150
Endrin Ketone	96.0	89.8	P/P	50 - 150
Esfenvalerate	147	132	P/P	50 - 180
Ethalfuralin	70.5	72.9	P/P	50 - 150
Fenpropathrin	92.6	90.3	P/P	50 - 150
Gamma-BHC	97.0	97.5	P/P	50 - 150
Gamma-Chlordane	76.2	79.1	P/P	50 - 150
Heptachlor	69.4	70.4	P/P	50 - 150
Heptachlor Epoxide	84.1	86.0	P/P	50 - 150
Hexachlorobenzene	59.7	60.9	P/P	50 - 150
Kepone	128	122	P/P	30 - 180
Lambda-Cyhalothrin	145	121	P/P	50 - 200
Methoxychlor	89.4	88.6	P/P	50 - 150
MGK-264	34.1	61.0	P/P	30 - 150
Mirex	58.1	60.2	P/P	50 - 180
Permethrin	114	106	P/P	50 - 150
Phenothrin	21.1	49.0	P/P	20 - 150
Piperonyl Butoxide	94.2	84.0	P/P	50 - 150
Prallethrin	31.8	50.6	P/P	30 - 150
Tau-Fluvalinate	104	93.5	P/P	40 - 150
Tetramethrin	18.4	45.1	F/P	30 - 150
Trans-Nonachlor	75.3	77.3	P/P	50 - 150
Triclosan Methyl	83.6	86.5	P/P	50 - 150
Trifluralin	73.9	73.7	P/P	50 - 150

Reference Method: EPA 8270E

Batch ID: P401725

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	110	114	P/P	70 - 121
Alachlor	107	105	P/P	70 - 119
Ametryn	106	120	P/P	61 - 135
Atrazine	106	103	P/P	76 - 123

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P401725

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Atrazine Desethyl	73.2	63.8	P/P	35 - 140
Azinphos Methyl	143	137	P/P	57 - 163
Azoxystrobin	93.6	106	P/P	43 - 231
Bromacil	116	119	P/P	42 - 123
Butylate	43.1	40.0	P/P	34 - 92.0
Caffeine	120	91.3	P/P	70 - 130
Carbophenothion	104	113	P/P	61 - 121
Carfentrazone Ethyl	127	132	P/P	62 - 139
Chlorpyrifos Ethyl	93.5	94.9	P/P	67 - 121
Chlorpyrifos Methyl	92.5	96.1	P/P	67 - 120
Cyanazine	216	224	P/P	20 - 226
Demeton	64.7	47.9	P/P	35 - 125
Diazinon	121	115	P/P	70 - 122
Difenoconazole	90.4	90.1	P/P	56 - 186
Dimethenamid	91.1	91.4	P/P	67 - 119
Disulfoton	71.8	53.9	P/P	47 - 120
Dithiopyr	110	112	P/P	67 - 118
EPTC	36.8	40.3	P/P	33 - 90.0
Ethion	98.1	93.3	P/P	40 - 133
Ethoprop	90.6	88.9	P/P	61 - 121
Fenamiphos	92.2	82.2	P/P	31 - 139
Fenbuconazole	139	132	P/P	66 - 141
Fipronil	84.4	89.5	P/P	62 - 129
Fipronil Desulfinyl	115	120	P/P	59 - 126
Fipronil Sulfide	93.2	96.9	P/P	63 - 117
Fipronil Sulfone	84.8	91.1	P/P	57 - 117
Fluazifop-P-butyl	112	118	P/P	63 - 124
Fludioxonil	109	108	P/P	63 - 123
Flumioxazin	244	233	P/P	34 - 245
Flutolanil	111	109	P/P	56 - 131
Fluxapyroxad	103	107	P/P	57 - 117
Fonofos	79.2	82.1	P/P	61 - 116
Hexazinone	104	105	P/P	55 - 138
Imazalil	99.4	81.6	P/P	33 - 143
Iprodione	133	128	F/F	59 - 118
Malathion	111	113	P/P	62 - 138
Metalaxyl	94.6	96.9	P/P	24 - 147
Metolachlor	112	103	P/P	68 - 118
Metribuzin	103	96.1	P/P	20 - 239
Mevinphos	74.5	74.9	P/P	46 - 124
Molinate	55.3	51.6	P/P	46 - 100
Myclobutanil	107	104	P/P	32 - 149
Naled	24.3	24.0	F/F	32 - 95.0
Norflurazon	101	107	P/P	57 - 127
Oxadiazon	98.3	97.6	P/P	63 - 118
Oxyfluorfen	118	112	P/P	69 - 137
Parathion Ethyl	91.2	96.3	P/P	70 - 113
Parathion Methyl	87.8	101	P/P	71 - 130
Pendimethalin	87.9	83.1	P/P	55 - 118
Phorate	80.8	75.0	P/P	46 - 125
Prodiamine	56.1	52.7	P/P	20 - 141
Prometon	104	102	P/P	54 - 122

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P401725

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Prometryn	112	114	P/P	66 - 124
Pronamide	107	107	P/P	79 - 122
Propiconazole	104	105	P/P	61 - 126
Pyriproxyfen	103	102	P/P	52 - 131
Simazine	105	102	P/P	75 - 128
Sulfentrazone	103	116	P/P	20 - 132
Tebuconazole	57.0	58.0	P/P	20 - 116
Terbufos	104	96.9	P/P	61 - 117
Terbutylazine	98.0	98.5	P/P	74 - 116

Reference Method: EPA 8276

Batch ID: P401662

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	81.5	86.6	P/P	56 - 117
Toxaphene	86.9	81.4	P/P	45 - 116

Reference Method: EPA 8321B

Batch ID: P401536

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	101		P	40 - 150
AMPA	115		P	40 - 150
Endothall	74.0		P	40 - 150
Glufosinate	104		P	40 - 150
Glyphosate	97.1		P	40 - 150
Sucralose	101		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P401633

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	118		P	40 - 150
2,4,5-T	121		P	40 - 150
Acetaminophen	107		P	30 - 150
Acetamiprid	88.4		P	40 - 150
Afidopyropen	64.9		P	40 - 150
Bentazon	113		P	30 - 150
Benzovindiflupyr	86.8		P	40 - 150
Carbamazepine	101		P	40 - 150
Clothianidin	99.5		P	40 - 150
Dinotefuran	89.4		P	40 - 150
Diuron	107		P	40 - 150
Fenuron	98.9		P	40 - 150
Fluridone	95.1		P	40 - 150
Hydrocodone	95.4		P	40 - 150
Ibuprofen	88.8		P	40 - 150
Imazapyr	107		P	40 - 150
Imidacloprid	100		P	40 - 150
Linuron	84.9		P	40 - 150
Mandestrobin	86.1		P	40 - 150
MCP	116		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P401633

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Naproxen	86.6		P	40 - 150
Primidone	105		P	40 - 150
Pyraclostrobin	82.4		P	40 - 150
Thiamethoxam	93.5		P	40 - 150
Tolfenpyrad	48.2		P	30 - 150
Triclopyr	114		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P401862

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	86.7		P	40 - 150
Aldicarb	75.3		P	30 - 150
Aldicarb Sulfone	87.3		P	40 - 150
Aldicarb Sulfoxide	82.3		P	40 - 150
Carbaryl	78.8		P	40 - 150
Carbofuran	79.2		P	40 - 150
Methiocarb	79.0		P	40 - 150
Methomyl	86.9		P	40 - 150
Oxamyl	88.7		P	40 - 150
Propoxur	83.6		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P401825

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265614	Barium	98.7	97.1	P/P	80 - 120
2265614	Calcium	103		P	80 - 120
2265614	Iron	103	102	P/P	80 - 120
2265614	Magnesium	105	103	P/P	80 - 120
2265614	Manganese	98.5	96.8	P/P	80 - 120
2265614	Potassium	102	102	P/P	80 - 120
2265614	Sodium	103	103	P/P	80 - 120
2265614	Zinc	99.3	97.1	P/P	80 - 120
2265686	Barium	102		P	80 - 120
2265686	Calcium	103		P	80 - 120
2265686	Iron	104		P	80 - 120
2265686	Magnesium	106		P	80 - 120
2265686	Manganese	101		P	80 - 120
2265686	Potassium	102		P	80 - 120
2265686	Sodium	105		P	80 - 120
2265686	Zinc	100		P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P402167

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2264638	Calcium	105	104	P/P	80 - 120
2264638	Magnesium	106	106	P/P	80 - 120
2265323	Calcium	103		P	80 - 120
2265323	Magnesium	104		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P401825

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265614	Aluminum	104	104	P/P	80 - 120
2265614	Antimony	105	106	P/P	80 - 120
2265614	Arsenic	99.4	100	P/P	80 - 120
2265614	Beryllium	105	104	P/P	80 - 120
2265614	Boron	106	105	P/P	80 - 120
2265614	Cadmium	102	100	P/P	80 - 120
2265614	Chromium	102	103	P/P	80 - 120
2265614	Lead	99.7	99.6	P/P	80 - 120
2265614	Nickel	102	103	P/P	80 - 120
2265614	Selenium	98.6	99.1	P/P	80 - 120
2265614	Silver	101	102	P/P	80 - 120
2265614	Thallium	108	109	P/P	80 - 120
2265686	Aluminum	97.9		P	80 - 120
2265686	Antimony	103		P	80 - 120
2265686	Arsenic	101		P	80 - 120
2265686	Beryllium	103		P	80 - 120
2265686	Boron	102		P	80 - 120
2265686	Cadmium	102		P	80 - 120
2265686	Chromium	102		P	80 - 120
2265686	Lead	100		P	80 - 120
2265686	Nickel	105		P	80 - 120
2265686	Selenium	96.8		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P401825

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265686	Silver	102		P	80 - 120
2265686	Thallium	108		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P402167

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2264638	Copper	93.1	92.4	P/P	80 - 120
2265323	Copper	94.1		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P402243

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2264588	Copper	87.4		P	80 - 120
2265305	Copper	90.1	92.5	P/P	80 - 120

Reference Method: EPA 8270E

Batch ID: P401662

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265966	Aldrin	39.5	38.8	P/P	20 - 170
2265966	Alpha-BHC	80.5	81.5	P/P	50 - 170
2265966	Alpha-Chlordane	67.3	66.8	P/P	50 - 170
2265966	Beta-BHC	106	106	P/P	50 - 170
2265966	Beta-Cyfluthrin	140	161	P/P	50 - 170
2265966	Bifenthrin	68.3	76.1	P/P	40 - 170
2265966	Chlorothalonil	149	147	P/P	20 - 170
2265966	Cis-Nonachlor	69.7	71.8	P/P	50 - 170
2265966	Cypermethrin	125	157	P/P	50 - 170
2265966	Dacthal	75.9	77.2	P/P	50 - 170
2265966	DDD-p,p'	66.6	68.9	P/P	50 - 170
2265966	DDE-p,p'	32.5	34.5	F/F	50 - 170
2265966	DDT-p,p'	60.3	59.8	P/P	50 - 170
2265966	Delta-BHC	116	115	P/P	50 - 170
2265966	Deltamethrin	97.2	123	P/P	50 - 170
2265966	Dichlobenil	53.8	48.7	P/P	40 - 170
2265966	Dicofol	80.9	69.5	P/P	50 - 170
2265966	Dieldrin	63.0	60.3	P/P	50 - 170
2265966	Endosulfan I	64.4	61.3	P/P	50 - 170
2265966	Endosulfan II	72.7	69.8	P/P	50 - 170
2265966	Endosulfan Sulfate	89.4	87.4	P/P	50 - 170
2265966	Endrin	66.0	63.2	P/P	50 - 170
2265966	Endrin Aldehyde	62.6	59.3	P/P	50 - 170
2265966	Endrin Ketone	87.1	81.4	P/P	50 - 170
2265966	Esfenvalerate	164	199	P/F	50 - 180
2265966	Ethalfuralin	58.6	56.1	P/P	50 - 170
2265966	Fenpropathrin	87.1	94.3	P/P	50 - 170
2265966	Gamma-BHC	94.6	94.3	P/P	50 - 170
2265966	Gamma-Chlordane	57.2	57.0	P/P	50 - 170
2265966	Heptachlor	56.1	56.6	P/P	50 - 170
2265966	Heptachlor Epoxide	64.6	63.4	P/P	50 - 170

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P401662

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265966	Hexachlorobenzene	50.2	52.0	P/P	50 - 170
2265966	Kepone	106	109	P/P	30 - 180
2265966	Lambda-Cyhalothrin	134	178	P/P	50 - 200
2265966	Methoxychlor	69.2	68.7	P/P	50 - 170
2265966	MGK-264	79.2	77.0	P/P	30 - 170
2265966	Mirex	63.0	65.7	P/P	50 - 180
2265966	Permethrin	76.3	99.7	P/P	50 - 170
2265966	Phenothrin	71.3	95.1	P/P	20 - 170
2265966	Piperonyl Butoxide	89.1	87.1	P/P	50 - 170
2265966	Prallethrin	78.2	69.9	P/P	30 - 170
2265966	Tau-Fluvalinate	155	147	P/P	40 - 170
2265966	Tetramethrin	58.6	64.8	P/P	30 - 170
2265966	Trans-Nonachlor	60.8	63.6	P/P	50 - 170
2265966	Triclosan Methyl	58.9	60.5	P/P	50 - 170
2265966	Trifluralin	57.3	57.5	P/P	50 - 170

Reference Method: EPA 8270E

Batch ID: P401725

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265967	Acetochlor	99.7	113	P/P	66 - 122
2265967	Alachlor	96.7	102	P/P	65 - 122
2265967	Ametryn	141	113	P/P	45 - 173
2265967	Atrazine Desethyl	72.2	55.2	P/P	25 - 150
2265967	Azinphos Methyl	115	109	P/P	44 - 174
2265967	Bromacil	114	122	P/P	31 - 145
2265967	Butylate	42.9	50.4	P/P	15 - 97.0
2265967	Caffeine	103	106	P/P	70 - 130
2265967	Carbophenothion	87.9	101	P/P	42 - 129
2265967	Carfentrazone Ethyl	108	113	P/P	62 - 145
2265967	Chlorpyrifos Ethyl	77.1	79.6	P/P	60 - 124
2265967	Chlorpyrifos Methyl	86.6	95.7	P/P	66 - 119
2265967	Cyanazine	201	203	P/P	17 - 225
2265967	Demeton	91.2	97.4	P/P	36 - 142
2265967	Diazinon	108	119	P/P	70 - 128
2265967	Difenoconazole	208	208	P/P	33 - 222
2265967	Dimethenamid	79.5	96.1	P/P	54 - 125
2265967	Disulfoton	78.9	79.7	P/P	49 - 133
2265967	Dithiopyr	97.5	111	P/P	55 - 123
2265967	EPTC	42.9	52.1	P/P	19 - 91.0
2265967	Ethion	86.0	97.0	P/P	13 - 143
2265967	Ethoprop	92.6	94.9	P/P	49 - 144
2265967	Fenamiphos	78.3	78.2	P/P	32 - 136
2265967	Fenbuconazole	134	137	P/P	73 - 148
2265967	Fipronil	123	128	P/P	57 - 129
2265967	Fipronil Desulfinyl	114	127	P/P	49 - 127
2265967	Fipronil Sulfide	84.2	93.2	P/P	44 - 127
2265967	Fipronil Sulfone	83.7	92.5	P/P	35 - 126
2265967	Fluazifop-P-butyl	108	116	P/P	67 - 129
2265967	Fludioxonil	95.0	108	P/P	61 - 126
2265967	Flumioxazin	247	237	P/P	38 - 279
2265967	Flutolanil	103	109	P/P	55 - 136

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P401725

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265967	Fluxapyroxad	95.5	100	P/P	33 - 140
2265967	Fonofos	73.0	92.4	P/P	58 - 125
2265967	Hexazinone	91.6	99.9	P/P	57 - 148
2265967	Imazalil	111	103	P/P	10 - 221
2265967	Iprodione	121	119	P/P	32 - 140
2265967	Malathion	92.7	101	P/P	52 - 138
2265967	Metalaxyl	91.9	104	P/P	46 - 134
2265967	Metribuzin	95.8	104	P/P	16 - 272
2265967	Mevinphos	84.1	87.9	P/P	45 - 140
2265967	Molinate	55.0	60.8	P/P	41 - 103
2265967	Myclobutanil	98.0	101	P/P	60 - 134
2265967	Naled	22.3	24.7	P/P	20 - 113
2265967	Norflurazon	92.7	98.1	P/P	51 - 123
2265967	Oxadiazon	82.2	91.5	P/P	44 - 125
2265967	Oxyfluorfen	116	127	P/P	66 - 176
2265967	Parathion Ethyl	90.6	91.4	P/P	57 - 132
2265967	Parathion Methyl	102	114	P/P	59 - 156
2265967	Pendimethalin	89.6	91.8	P/P	59 - 129
2265967	Phorate	88.7	95.5	P/P	47 - 136
2265967	Prodiamine	69.1	83.0	P/P	10 - 159
2265967	Prometon	101	102	P/P	59 - 127
2265967	Prometryn	98.8	105	P/P	59 - 129
2265967	Pronamide	97.7	113	P/P	65 - 145
2265967	Propiconazole	101	112	P/P	28 - 165
2265967	Pyriproxyfen	84.4	91.9	P/P	21 - 180
2265967	Sulfentrazone	103	110	P/P	32 - 136
2265967	Tebuconazole	72.9	78.6	P/P	-8.3 - 117
2265967	Terbufos	100	111	P/P	61 - 131
2265967	Terbutylazine	92.3	93.8	P/P	62 - 126

Reference Method: EPA 8276
Batch ID: P401662

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265137	Chlordane	93.9	92.3	P/P	47 - 128
2265137	Toxaphene	91.4	99.3	P/P	11 - 163

Reference Method: EPA 8321B
Batch ID: P401536

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2264960	Acesulfame K	145	144	P/P	40 - 150
2264960	AMPA	91.9	91.6	P/P	40 - 150
2264960	Endothall	99.9	104	P/P	40 - 150
2264960	Glufosinate	105	102	P/P	40 - 150
2264960	Glyphosate	79.6	78.4	P/P	40 - 150
2264960	Sucralose	101	103	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P401633

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P401633

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2264998	2,4-D	98.6	111	P/P	40 - 150
2264998	2,4,5-T	107	116	P/P	40 - 150
2264998	Acetaminophen	104	115	P/P	30 - 150
2264998	Acetamiprid	82.9	85.1	P/P	40 - 150
2264998	Afidopyropen	58.4	50.0	P/P	40 - 150
2264998	Bentazon	95.2	107	P/P	30 - 150
2264998	Benzovindiflupyr	80.7	89.7	P/P	40 - 150
2264998	Carbamazepine	94.2	105	P/P	40 - 150
2264998	Clothianidin	95.7	105	P/P	40 - 150
2264998	Dinotefuran	96.8	100	P/P	40 - 150
2264998	Diuron	94.1	105	P/P	40 - 150
2264998	Fenuron	88.1	95.5	P/P	40 - 150
2264998	Fluridone	86.9	96.2	P/P	40 - 150
2264998	Hydrocodone	90.2	98.4	P/P	40 - 150
2264998	Ibuprofen	96.8	89.8	P/P	40 - 150
2264998	Imazapyr	94.4	105	P/P	40 - 150
2264998	Imidacloprid	110	120	P/P	40 - 150
2264998	Linuron	76.0	88.3	P/P	40 - 150
2264998	Mandestrobin	82.9	91.3	P/P	40 - 150
2264998	MCCP	107	118	P/P	40 - 150
2264998	Naproxen	86.3	92.2	P/P	40 - 150
2264998	Primidone	102	107	P/P	40 - 150
2264998	Pyraclostrobin	78.6	87.7	P/P	40 - 150
2264998	Thiamethoxam	102	110	P/P	40 - 150
2264998	Tolfenpyrad	47.8	54.0	P/P	30 - 150
2264998	Triclopyr	103	109	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P401862

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265964	3-Hydroxycarbofuran	85.8	90.3	P/P	40 - 150
2265964	Aldicarb	78.7	83.9	P/P	30 - 150
2265964	Aldicarb Sulfone	96.2	106	P/P	40 - 150
2265964	Aldicarb Sulfoxide	38.3	42.3	F/P	40 - 150
2265964	Carbaryl	76.8	79.3	P/P	40 - 150
2265964	Carbofuran	79.7	83.2	P/P	40 - 150
2265964	Methiocarb	77.6	81.6	P/P	40 - 150
2265964	Methomyl	84.3	90.9	P/P	40 - 150
2265964	Oxamyl	89.8	96.7	P/P	40 - 150
2265964	Propoxur	81.5	86.4	P/P	40 - 150

Quality Assurance Report

Precision

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P401825

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265614	Barium	1.62	Spike	P	0 - 20
2265614	Calcium	0.558	Spike	P	0 - 20
2265614	Iron	0.970	Spike	P	0 - 20
2265614	Magnesium	1.03	Spike	P	0 - 20
2265614	Manganese	1.69	Spike	P	0 - 20
2265614	Potassium	0.0957	Spike	P	0 - 20
2265614	Sodium	0.189	Spike	P	0 - 20
2265614	Zinc	2.19	Spike	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P402167

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2264638	Calcium	0.960	Spike	P	0 - 20
2264638	Magnesium	0.675	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P401825

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265614	Aluminum	0.368	Spike	P	0 - 20
2265614	Antimony	0.239	Spike	P	0 - 20
2265614	Arsenic	0.851	Spike	P	0 - 20
2265614	Beryllium	0.132	Spike	P	0 - 20
2265614	Boron	1.34	Spike	P	0 - 20
2265614	Cadmium	1.17	Spike	P	0 - 20
2265614	Chromium	0.861	Spike	P	0 - 20
2265614	Lead	0.128	Spike	P	0 - 20
2265614	Nickel	0.994	Spike	P	0 - 20
2265614	Selenium	0.546	Spike	P	0 - 20
2265614	Silver	0.723	Spike	P	0 - 20
2265614	Thallium	0.942	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P402167

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2264638	Copper	0.816	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P402243

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265305	Copper	2.65	Spike	P	0 - 20

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P401662

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265966	Aldrin	1.78	Spike	P	0 - 30
2265966	Alpha-BHC	1.26	Spike	P	0 - 30
2265966	Alpha-Chlordane	0.685	Spike	P	0 - 30
2265966	Beta-BHC	0.714	Spike	P	0 - 30
2265966	Beta-Cyfluthrin	13.7	Spike	P	0 - 30
2265966	Bifenthrin	10.8	Spike	P	0 - 30
2265966	Chlorothalonil	1.21	Spike	P	0 - 50
2265966	Cis-Nonachlor	3.01	Spike	P	0 - 30
2265966	Cypermethrin	22.6	Spike	P	0 - 30
2265966	Dacthal	1.75	Spike	P	0 - 30
2265966	DDD-p,p'	3.50	Spike	P	0 - 30
2265966	DDE-p,p'	3.49	Spike	P	0 - 30
2265966	DDT-p,p'	0.711	Spike	P	0 - 30
2265966	Delta-BHC	0.555	Spike	P	0 - 30
2265966	Deltamethrin	23.4	Spike	P	0 - 30
2265966	Dichlobenil	9.82	Spike	P	0 - 30
2265966	Dicofol	15.1	Spike	P	0 - 30
2265966	Dieldrin	4.08	Spike	P	0 - 30
2265966	Endosulfan I	4.93	Spike	P	0 - 30
2265966	Endosulfan II	3.86	Spike	P	0 - 30
2265966	Endosulfan Sulfate	2.30	Spike	P	0 - 30
2265966	Endrin	4.31	Spike	P	0 - 30
2265966	Endrin Aldehyde	5.32	Spike	P	0 - 30
2265966	Endrin Ketone	6.71	Spike	P	0 - 30
2265966	Esfenvalerate	19.4	Spike	P	0 - 30
2265966	Ethalfuralin	4.39	Spike	P	0 - 30
2265966	Fenpropathrin	7.84	Spike	P	0 - 30
2265966	Gamma-BHC	0.253	Spike	P	0 - 30
2265966	Gamma-Chlordane	0.299	Spike	P	0 - 30
2265966	Heptachlor	0.965	Spike	P	0 - 30
2265966	Heptachlor Epoxide	1.94	Spike	P	0 - 30
2265966	Hexachlorobenzene	3.36	Spike	P	0 - 30
2265966	Kepone	3.32	Spike	P	0 - 30
2265966	Lambda-Cyhalothrin	28.7	Spike	P	0 - 30
2265966	Methoxychlor	0.682	Spike	P	0 - 30
2265966	MGK-264	2.82	Spike	P	0 - 30
2265966	Mirex	4.20	Spike	P	0 - 30
2265966	Permethrin	17.8	Spike	P	0 - 30
2265966	Phenothrin	28.7	Spike	P	0 - 30
2265966	Piperonyl Butoxide	2.30	Spike	P	0 - 30
2265966	Prallethrin	11.2	Spike	P	0 - 30
2265966	Tau-Fluvalinate	5.34	Spike	P	0 - 30
2265966	Tetramethrin	10.0	Spike	P	0 - 30
2265966	Trans-Nonachlor	4.41	Spike	P	0 - 30
2265966	Triclosan Methyl	2.73	Spike	P	0 - 30
2265966	Trifluralin	0.219	Spike	P	0 - 30
LFB	Aldrin	111	LCS	F	0 - 30
LFB	Alpha-BHC	0.258	LCS	P	0 - 30
LFB	Alpha-Chlordane	2.83	LCS	P	0 - 30
LFB	Beta-BHC	0.374	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	9.97	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P401662

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Bifenthrin	5.13	LCS	P	0 - 30
LFB	Chlorothalonil	4.67	LCS	P	0 - 50
LFB	Cis-Nonachlor	0.00766	LCS	P	0 - 30
LFB	Cypermethrin	10.0	LCS	P	0 - 30
LFB	Dacthal	1.50	LCS	P	0 - 30
LFB	DDD-p,p'	1.75	LCS	P	0 - 30
LFB	DDE-p,p'	4.40	LCS	P	0 - 30
LFB	DDT-p,p'	3.56	LCS	P	0 - 30
LFB	Delta-BHC	0.566	LCS	P	0 - 30
LFB	Deltamethrin	10.7	LCS	P	0 - 30
LFB	Dichlobenil	9.38	LCS	P	0 - 30
LFB	Dicofol	0.277	LCS	P	0 - 30
LFB	Dieldrin	4.24	LCS	P	0 - 30
LFB	Endosulfan I	4.94	LCS	P	0 - 30
LFB	Endosulfan II	3.00	LCS	P	0 - 30
LFB	Endosulfan Sulfate	2.06	LCS	P	0 - 30
LFB	Endrin	0.509	LCS	P	0 - 30
LFB	Endrin Aldehyde	11.8	LCS	P	0 - 30
LFB	Endrin Ketone	6.66	LCS	P	0 - 30
LFB	Esfenvalerate	10.7	LCS	P	0 - 30
LFB	Ethalfuralin	3.32	LCS	P	0 - 30
LFB	Fenpropathrin	2.56	LCS	P	0 - 30
LFB	Gamma-BHC	0.474	LCS	P	0 - 30
LFB	Gamma-Chlordane	3.85	LCS	P	0 - 30
LFB	Heptachlor	1.40	LCS	P	0 - 30
LFB	Heptachlor Epoxide	2.18	LCS	P	0 - 30
LFB	Hexachlorobenzene	2.02	LCS	P	0 - 30
LFB	Kepone	4.81	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	18.3	LCS	P	0 - 30
LFB	Methoxychlor	0.871	LCS	P	0 - 30
LFB	MGK-264	56.6	LCS	F	0 - 30
LFB	Mirex	3.52	LCS	P	0 - 30
LFB	Permethrin	6.91	LCS	P	0 - 30
LFB	Phenothrin	79.6	LCS	F	0 - 30
LFB	Piperonyl Butoxide	11.4	LCS	P	0 - 30
LFB	Prallethrin	45.6	LCS	F	0 - 30
LFB	Tau-Fluvalinate	11.0	LCS	P	0 - 30
LFB	Tetramethrin	83.9	LCS	F	0 - 30
LFB	Trans-Nonachlor	2.64	LCS	P	0 - 30
LFB	Triclosan Methyl	3.32	LCS	P	0 - 30
LFB	Trifluralin	0.279	LCS	P	0 - 30

Reference Method: EPA 8270E

Batch ID: P401725

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265967	Acetochlor	7.42	Spike	P	0 - 30
2265967	Alachlor	5.49	Spike	P	0 - 30
2265967	Ametryn	21.4	Spike	P	0 - 30
2265967	Atrazine	3.83	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P401725

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265967	Atrazine Desethyl	19.7	Spike	P	0 - 30
2265967	Azinphos Methyl	4.96	Spike	P	0 - 30
2265967	Azoxystrobin	7.55	Spike	P	0 - 30
2265967	Bromacil	6.53	Spike	P	0 - 30
2265967	Butylate	16.0	Spike	P	0 - 30
2265967	Caffeine	1.77	Spike	P	0 - 30
2265967	Carbophenothion	14.1	Spike	P	0 - 30
2265967	Carfentrazone Ethyl	4.27	Spike	P	0 - 30
2265967	Chlorpyrifos Ethyl	3.23	Spike	P	0 - 30
2265967	Chlorpyrifos Methyl	9.96	Spike	P	0 - 30
2265967	Cyanazine	1.08	Spike	P	0 - 30
2265967	Demeton	6.56	Spike	P	0 - 30
2265967	Diazinon	9.66	Spike	P	0 - 30
2265967	Difenoconazole	0.291	Spike	P	0 - 30
2265967	Dimethenamid	11.1	Spike	P	0 - 30
2265967	Disulfoton	0.947	Spike	P	0 - 30
2265967	Dithiopyr	12.1	Spike	P	0 - 30
2265967	EPTC	19.4	Spike	P	0 - 30
2265967	Ethion	12.0	Spike	P	0 - 30
2265967	Ethoprop	2.52	Spike	P	0 - 30
2265967	Fenamiphos	0.174	Spike	P	0 - 30
2265967	Fenbuconazole	2.32	Spike	P	0 - 30
2265967	Fipronil	4.12	Spike	P	0 - 30
2265967	Fipronil Desulfinyl	9.68	Spike	P	0 - 30
2265967	Fipronil Sulfide	10.2	Spike	P	0 - 30
2265967	Fipronil Sulfone	9.02	Spike	P	0 - 30
2265967	Fluazifop-P-butyl	7.21	Spike	P	0 - 30
2265967	Fludioxonil	13.1	Spike	P	0 - 30
2265967	Flumioxazin	3.88	Spike	P	0 - 30
2265967	Flutolanil	3.33	Spike	P	0 - 30
2265967	Fluxapyroxad	3.90	Spike	P	0 - 30
2265967	Fonofos	23.4	Spike	P	0 - 30
2265967	Hexazinone	6.85	Spike	P	0 - 30
2265967	Imazalil	7.54	Spike	P	0 - 30
2265967	Iprodione	1.76	Spike	P	0 - 30
2265967	Malathion	8.05	Spike	P	0 - 30
2265967	Metalaxyl	12.6	Spike	P	0 - 30
2265967	Metolachlor	1.60	Spike	P	0 - 30
2265967	Metribuzin	8.05	Spike	P	0 - 30
2265967	Mevinphos	4.39	Spike	P	0 - 30
2265967	Molinate	10.1	Spike	P	0 - 30
2265967	Myclobutanil	2.76	Spike	P	0 - 30
2265967	Naled	10.3	Spike	P	0 - 30
2265967	Norflurazon	5.61	Spike	P	0 - 30
2265967	Oxadiazon	6.27	Spike	P	0 - 30
2265967	Oxyfluorfen	8.93	Spike	P	0 - 30
2265967	Parathion Ethyl	0.927	Spike	P	0 - 30
2265967	Parathion Methyl	11.2	Spike	P	0 - 30
2265967	Pendimethalin	2.47	Spike	P	0 - 30
2265967	Phorate	7.36	Spike	P	0 - 30
2265967	Prodiamine	18.4	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P401725

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265967	Prometon	0.208	Spike	P	0 - 30
2265967	Prometryn	5.95	Spike	P	0 - 30
2265967	Pronamide	14.1	Spike	P	0 - 30
2265967	Propiconazole	7.54	Spike	P	0 - 30
2265967	Pyriproxyfen	8.58	Spike	P	0 - 30
2265967	Simazine	5.41	Spike	P	0 - 30
2265967	Sulfentrazone	7.09	Spike	P	0 - 30
2265967	Tebuconazole	5.19	Spike	P	0 - 30
2265967	Terbufos	9.90	Spike	P	0 - 30
2265967	Terbuthylazine	1.61	Spike	P	0 - 30
LFB	Acetochlor	3.48	LCS	P	0 - 30
LFB	Alachlor	1.21	LCS	P	0 - 30
LFB	Ametryn	13.0	LCS	P	0 - 30
LFB	Atrazine	2.90	LCS	P	0 - 30
LFB	Atrazine Desethyl	13.6	LCS	P	0 - 30
LFB	Azinphos Methyl	4.09	LCS	P	0 - 30
LFB	Azoxystrobin	12.0	LCS	P	0 - 30
LFB	Bromacil	2.20	LCS	P	0 - 30
LFB	Butylate	7.31	LCS	P	0 - 30
LFB	Caffeine	27.4	LCS	P	0 - 30
LFB	Carbophenothion	7.66	LCS	P	0 - 30
LFB	Carfentrazone Ethyl	3.91	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	1.52	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	3.82	LCS	P	0 - 30
LFB	Cyanazine	3.69	LCS	P	0 - 30
LFB	Demeton	30.0	LCS	P	0 - 30
LFB	Diazinon	4.67	LCS	P	0 - 30
LFB	Difenoconazole	0.285	LCS	P	0 - 30
LFB	Dimethenamid	0.366	LCS	P	0 - 30
LFB	Disulfoton	28.4	LCS	P	0 - 30
LFB	Dithiopyr	1.25	LCS	P	0 - 30
LFB	EPTC	9.21	LCS	P	0 - 30
LFB	Ethion	5.06	LCS	P	0 - 30
LFB	Ethoprop	1.82	LCS	P	0 - 30
LFB	Fenamiphos	11.6	LCS	P	0 - 30
LFB	Fenbuconazole	5.78	LCS	P	0 - 30
LFB	Fipronil	5.88	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	4.07	LCS	P	0 - 30
LFB	Fipronil Sulfide	3.90	LCS	P	0 - 30
LFB	Fipronil Sulfone	7.13	LCS	P	0 - 30
LFB	Fluazifop-P-butyl	6.02	LCS	P	0 - 30
LFB	Fludioxonil	0.927	LCS	P	0 - 30
LFB	Flumioxazin	4.40	LCS	P	0 - 30
LFB	Flutolanil	1.81	LCS	P	0 - 30
LFB	Fluxapyroxad	3.69	LCS	P	0 - 30
LFB	Fonofos	3.71	LCS	P	0 - 30
LFB	Hexazinone	1.61	LCS	P	0 - 30
LFB	Imazalil	19.7	LCS	P	0 - 30
LFB	Iprodione	3.58	LCS	P	0 - 30
LFB	Malathion	1.95	LCS	P	0 - 30
LFB	Metalaxyl	2.39	LCS	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P401725

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Metolachlor	8.30	LCS	P	0 - 30
LFB	Metribuzin	6.99	LCS	P	0 - 30
LFB	Mevinphos	0.520	LCS	P	0 - 30
LFB	Molinate	6.91	LCS	P	0 - 30
LFB	Myclobutanil	2.50	LCS	P	0 - 30
LFB	Naled	1.33	LCS	P	0 - 30
LFB	Norflurazon	5.92	LCS	P	0 - 30
LFB	Oxadiazon	0.738	LCS	P	0 - 30
LFB	Oxyfluorfen	5.46	LCS	P	0 - 30
LFB	Parathion Ethyl	5.47	LCS	P	0 - 30
LFB	Parathion Methyl	14.2	LCS	P	0 - 30
LFB	Pendimethalin	5.61	LCS	P	0 - 30
LFB	Phorate	7.53	LCS	P	0 - 30
LFB	Prodiamine	6.24	LCS	P	0 - 30
LFB	Prometon	2.80	LCS	P	0 - 30
LFB	Prometryn	1.86	LCS	P	0 - 30
LFB	Pronamide	0.628	LCS	P	0 - 30
LFB	Propiconazole	0.635	LCS	P	0 - 30
LFB	Pyriproxyfen	1.20	LCS	P	0 - 30
LFB	Simazine	2.20	LCS	P	0 - 30
LFB	Sulfentrazone	12.2	LCS	P	0 - 30
LFB	Tebuconazole	1.69	LCS	P	0 - 30
LFB	Terbufos	7.05	LCS	P	0 - 30
LFB	Terbuthylazine	0.490	LCS	P	0 - 30

Reference Method: EPA 8276

Batch ID: P401662

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265137	Chlordane	1.68	Spike	P	0 - 30
2265137	Toxaphene	8.27	Spike	P	0 - 30
LFB	Chlordane	6.03	LCS	P	0 - 30
LFB	Toxaphene	6.54	LCS	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P401536

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2264960	Acesulfame K	0.811	Spike	P	0 - 30
2264960	AMPA	0.390	Spike	P	0 - 30
2264960	Endothall	3.67	Spike	P	0 - 30
2264960	Glufosinate	2.67	Spike	P	0 - 30
2264960	Glyphosate	1.57	Spike	P	0 - 30
2264960	Sucralose	1.65	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8321B

Batch ID: P401633

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2264998	2,4-D	9.08	Spike	P	0 - 30
2264998	2,4,5-T	7.96	Spike	P	0 - 30
2264998	Acetaminophen	10.7	Spike	P	0 - 30
2264998	Acetamiprid	2.62	Spike	P	0 - 30
2264998	Afidopyropen	15.6	Spike	P	0 - 30
2264998	Bentazon	7.74	Spike	P	0 - 30
2264998	Benzovindiflupyr	10.6	Spike	P	0 - 30
2264998	Carbamazepine	10.1	Spike	P	0 - 30
2264998	Clothianidin	9.03	Spike	P	0 - 30
2264998	Dinotefuran	3.39	Spike	P	0 - 30
2264998	Diuron	8.95	Spike	P	0 - 30
2264998	Fenuron	8.08	Spike	P	0 - 30
2264998	Fluridone	10.1	Spike	P	0 - 30
2264998	Hydrocodone	8.75	Spike	P	0 - 30
2264998	Ibuprofen	7.51	Spike	P	0 - 30
2264998	Imazapyr	8.09	Spike	P	0 - 30
2264998	Imidacloprid	7.84	Spike	P	0 - 30
2264998	Linuron	15.0	Spike	P	0 - 30
2264998	Mandestrobin	9.64	Spike	P	0 - 30
2264998	MCPP	9.10	Spike	P	0 - 30
2264998	Naproxen	6.67	Spike	P	0 - 30
2264998	Primidone	4.91	Spike	P	0 - 30
2264998	Pyraclostrobin	10.9	Spike	P	0 - 30
2264998	Thiamethoxam	7.64	Spike	P	0 - 30
2264998	Tolfenpyrad	12.4	Spike	P	0 - 30
2264998	Triclopyr	5.20	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P401862

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265964	3-Hydroxycarbofuran	5.07	Spike	P	0 - 30
2265964	Aldicarb	6.39	Spike	P	0 - 30
2265964	Aldicarb Sulfone	9.60	Spike	P	0 - 30
2265964	Aldicarb Sulfoxide	9.77	Spike	P	0 - 30
2265964	Carbaryl	3.32	Spike	P	0 - 30
2265964	Carbofuran	4.33	Spike	P	0 - 30
2265964	Methiocarb	5.08	Spike	P	0 - 30
2265964	Methomyl	7.57	Spike	P	0 - 30
2265964	Oxamyl	7.37	Spike	P	0 - 30
2265964	Propoxur	5.93	Spike	P	0 - 30

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

Quality Assurance Report Surrogates

Lab Sample ID: 2265663
Field Sample ID: G1TLHR0057

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	72.8	P	30 - 160

Lab Sample ID: 2265664
Field Sample ID: G1TLHR0057

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	98.7	P	30 - 160
EPA 8321B	Acetaminophen-d4	97.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	93.6	P	30 - 160
EPA 8321B	Diuron-d6	80.9	P	30 - 160
EPA 8321B	Endothall-d6	125	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	92.6	P	30 - 160
EPA 8321B	Ibuprofen-d3	74.7	P	30 - 160
EPA 8321B	Primidone-d5	85.5	P	30 - 160
EPA 8321B	Sucralose-d6	103	P	30 - 160

Lab Sample ID: 2265665
Field Sample ID: G1TLHR0057

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	92.8	P	35 - 120
EPA 8270E	Tetrachloro-m-xylene	51.0	P	30 - 110
EPA 8276	Decachlorobiphenyl	64.5	P	29 - 92.0
EPA 8276	PCNB	75.3	P	43 - 134

Lab Sample ID: 2265666
Field Sample ID: G1TLHR0057

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	46.7	P	20 - 200
EPA 8270E	Simazine-d10	108	P	73 - 135
EPA 8270E	Terbufos-d10	111	P	58 - 130

Lab Sample ID: 2265667
Field Sample ID: G2TLHR0092

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8276	Decachlorobiphenyl	58.3	P	29 - 92.0
EPA 8276	PCNB	66.3	P	43 - 134

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A106898
Included Lab Sample IDs: 2265664

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	119	120	P/P	60 - 160
Glufosinate	102	105	P/P	60 - 160
Glyphosate	102	103	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A106904
Included Lab Sample IDs: 2265664

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	99.5	99.0	P/P	60 - 160
Endothall	84.0	79.7	P/P	60 - 160
Sucralose	98.5	98.8	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A106940
Included Lab Sample IDs: 2265664

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	92.0	90.1	P/P	50 - 150
2,4,5-T	95.6	97.1	P/P	50 - 150
Acetaminophen	104	101	P/P	60 - 160
Acetamiprid	96.1	97.6	P/P	50 - 150
Afidopyropen	94.0	95.1	P/P	50 - 150
Bentazon	107	109	P/P	50 - 160
Benzovindiflupyr	93.9	96.0	P/P	50 - 150
Carbamazepine	99.3	99.9	P/P	60 - 150
Clothianidin	95.5	94.2	P/P	60 - 150
Dinotefuran	104	102	P/P	50 - 150
Diuron	113	110	P/P	60 - 160
Fenuron	96.7	96.1	P/P	60 - 150
Fluridone	98.6	101	P/P	60 - 160
Hydrocodone	100	105	P/P	60 - 150
Ibuprofen	97.4	94.3	P/P	50 - 160
Imazapyr	107	111	P/P	50 - 150
Imidacloprid	91.9	92.8	P/P	60 - 150
Linuron	102	95.1	P/P	60 - 150
Mandestrobin	96.4	95.6	P/P	50 - 150
MCPP	90.4	90.0	P/P	50 - 150
Naproxen	108	101	P/P	50 - 160
Primidone	101	92.7	P/P	60 - 150
Pyraclostrobin	97.5	98.2	P/P	60 - 150
Thiamethoxam	97.6	97.3	P/P	50 - 150
Tolfenpyrad	95.2	96.2	P/P	60 - 150
Triclopyr	90.6	92.4	P/P	50 - 150

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A107013
Included Lab Sample IDs: 2265668, 2265669

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	106	105	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A107013

Included Lab Sample IDs: 2265668, 2265669

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Antimony	105	104	P/P	90 - 110
Arsenic	104	104	P/P	90 - 110
Beryllium	104	104	P/P	90 - 110
Boron	102	103	P/P	90 - 110
Cadmium	102	102	P/P	90 - 110
Chromium	103	104	P/P	90 - 110
Nickel	105	105	P/P	90 - 110
Selenium	102	101	P/P	90 - 110
Silver	96.2	95.8	P/P	90 - 110
Thallium	108	107	P/P	90 - 110

Reference Method: EPA 8276

Run ID: A107020

Included Lab Sample IDs: 2265665, 2265667

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	98.3		P	80 - 120
Toxaphene	105		P	80 - 120

Reference Method: EPA 8270E

Run ID: A107021

Included Lab Sample IDs: 2265665

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	96.4		P	80 - 120
Alpha-BHC	96.8		P	80 - 120
Alpha-Chlordane	99.7		P	80 - 120
Beta-BHC	98.4		P	80 - 120
Beta-Cyfluthrin	106		P	80 - 120
Bifenthrin	102		P	80 - 120
Chlorothalonil	105		P	80 - 120
Cis-Nonachlor	105		P	80 - 120
Cypermethrin	105		P	80 - 120
Dacthal	98.5		P	80 - 120
DDD-p,p'	101		P	80 - 120
DDE-p,p'	96.5		P	80 - 120
DDT-p,p'	97.0		P	80 - 120
Delta-BHC	105		P	80 - 120
Deltamethrin	107		P	80 - 120
Dichlobenil	99.6		P	80 - 120
Dicofol	100		P	80 - 120
Dieldrin	101		P	80 - 120
Endosulfan I	96.5		P	80 - 120
Endosulfan II	101		P	80 - 120
Endosulfan Sulfate	108		P	80 - 120
Endrin	99.7		P	80 - 120
Endrin Aldehyde	101		P	80 - 120
Endrin Ketone	101		P	80 - 120
Esfenvalerate	106		P	80 - 120
Ethalfuralin	96.2		P	80 - 120
Fenpropathrin	107		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A107021
Included Lab Sample IDs: 2265665

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Gamma-BHC	98.1		P	80 - 120
Gamma-Chlordane	96.4		P	80 - 120
Heptachlor	102		P	80 - 120
Heptachlor Epoxide	97.5		P	80 - 120
Hexachlorobenzene	99.8		P	80 - 120
Kepone	93.3		P	80 - 120
Lambda-Cyhalothrin	111		P	80 - 120
Methoxychlor	102		P	80 - 120
MGK-264	102		P	80 - 120
Mirex	95.5		P	80 - 120
Permethrin	103		P	80 - 120
Phenothrin	103		P	80 - 120
Piperonyl Butoxide	103		P	80 - 120
Prallethrin	94.3		P	80 - 120
Tau-Fluvalinate	105		P	80 - 120
Tetramethrin	104		P	80 - 120
Trans-Nonachlor	96.8		P	80 - 120
Triclosan Methyl	97.9		P	80 - 120
Trifluralin	95.3		P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A107030
Included Lab Sample IDs: 2265668, 2265669

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	99.2	99.0	P/P	90 - 110
Calcium	98.2	100	P/P	90 - 110
Iron	98.8	100	P/P	90 - 110
Magnesium	98.1	99.8	P/P	90 - 110
Manganese	102	102	P/P	90 - 110
Potassium	99.2	102	P/P	90 - 110
Sodium	101	103	P/P	90 - 110
Zinc	102	103	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A107042
Included Lab Sample IDs: 2265668, 2265669

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Lead	97.8	99.5	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A107055
Included Lab Sample IDs: 2265663

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	102	103	P/P	60 - 150
Aldicarb	95.9	107	P/P	60 - 150
Aldicarb Sulfone	99.9	102	P/P	50 - 150
Aldicarb Sulfoxide	100	103	P/P	50 - 150
Carbaryl	104	104	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
 Run ID: A107055
 Included Lab Sample IDs: 2265663

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Carbofuran	104	105	P/P	50 - 150
Methiocarb	100	102	P/P	50 - 150
Methomyl	101	102	P/P	50 - 150
Oxamyl	101	103	P/P	50 - 150
Propoxur	106	105	P/P	50 - 150

Reference Method: EPA 8270E
 Run ID: A107074
 Included Lab Sample IDs: 2265666

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	104		P	80 - 120
Alachlor	104		P	80 - 120
Ametryn	106		P	80 - 120
Atrazine	101		P	80 - 120
Atrazine Desethyl	116		P	80 - 120
Azinphos Methyl	95.7		P	80 - 120
Azoxystrobin	95.2		P	80 - 120
Bromacil	105		P	80 - 120
Butylate	101		P	80 - 120
Caffeine	101		P	70 - 120
Carbophenothion	99.3		P	80 - 120
Carfentrazone Ethyl	101		P	80 - 120
Chlorpyrifos Ethyl	99.4		P	80 - 120
Chlorpyrifos Methyl	99.2		P	80 - 120
Cyanazine	108		P	80 - 120
Demeton	96.1		P	80 - 120
Diazinon	99.5		P	80 - 120
Difenoconazole	92.5		P	80 - 120
Dimethenamid	104		P	80 - 120
Disulfoton	99.4		P	80 - 120
Dithiopyr	97.7		P	80 - 120
EPTC	102		P	80 - 120
Ethion	101		P	80 - 120
Ethoprop	102		P	80 - 120
Fenamiphos	92.0		P	80 - 120
Fenbuconazole	100		P	80 - 120
Fipronil	98.9		P	80 - 120
Fipronil Desulfinyl	92.6		P	80 - 120
Fipronil Sulfide	93.9		P	80 - 120
Fipronil Sulfone	98.7		P	80 - 120
Fluazifop-P-butyl	102		P	80 - 120
Fludioxonil	99.9		P	80 - 120
Flumioxazin	89.9		P	80 - 120
Flutolanil	102		P	80 - 120
Fluxapyroxad	99.2		P	80 - 120
Fonofos	95.4		P	80 - 120
Hexazinone	102		P	80 - 120
Imazalil	105		P	80 - 120
Iprodione	96.8		P	80 - 120
Malathion	92.8		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
 Run ID: A107074
 Included Lab Sample IDs: 2265666

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Metalaxyl	101		P	80 - 120
Metolachlor	101		P	80 - 120
Metribuzin	103		P	80 - 120
Mevinphos	93.8		P	80 - 120
Molinate	101		P	80 - 120
Myclobutanil	106		P	80 - 120
Naled	101		P	80 - 120
Norflurazon	101		P	80 - 120
Oxadiazon	104		P	80 - 120
Oxyfluorfen	97.2		P	80 - 120
Parathion Ethyl	104		P	80 - 120
Parathion Methyl	103		P	80 - 120
Pendimethalin	112		P	80 - 120
Phorate	100		P	80 - 120
Prodiamine	110		P	80 - 120
Prometon	97.9		P	80 - 120
Prometryn	100		P	80 - 120
Pronamide	95.1		P	80 - 120
Propiconazole	102		P	80 - 120
Pyriproxyfen	104		P	80 - 120
Simazine	104		P	80 - 120
Sulfentrazone	94.6		P	80 - 120
Tebuconazole	104		P	80 - 120
Terbufos	94.6		P	80 - 120
Terbuthylazine	95.9		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
 Run ID: A107160
 Included Lab Sample IDs: 2265668

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Copper	92.8	95.8	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
 Run ID: A107192
 Included Lab Sample IDs: 2265669

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Copper	92.6	93.4	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
 Run ID: A107254
 Included Lab Sample IDs: 2265668

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	99.4	102	P/P	95 - 105
Magnesium	101	103	P/P	95 - 105

* 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 SMP	MS
				LCS				
EPA 200.7 Rev. 4.4	Barium	98.9		98.7	97.1	102		1.62
	Calcium	98.0		103	103			0.558
	Calcium	104		105	104	103		0.960
	Iron	100		103	102	104		0.970
	Magnesium	103		105	103	106		1.03
	Magnesium	105		106	106	104		0.675
	Manganese	98.9		98.5	96.8	101		1.69
	Potassium	95.9		102	102	102		0.0957
	Sodium	101		103	103	105		0.189
	Zinc	97.8		99.3	97.1	100		2.19
EPA 200.8 Rev. 5.4	Aluminum	103		97.9	104	104		0.368
	Antimony	106		103	105	106		0.239
	Arsenic	102		101	99.4	100		0.851
	Beryllium	102		103	105	104		0.132
	Boron	104		102	106	105		1.34
	Cadmium	103		102	102	100		1.17
	Chromium	103		102	102	103		0.861
	Copper	95.8		93.1	92.4	94.1		0.816
	Copper	96.7		90.1	92.5	87.4		2.65
	Lead	101		100	99.7	99.6		0.128
	Nickel	105		105	102	103		0.994
	Selenium	102		96.8	98.6	99.1		0.546
	Silver	102		102	101	102		0.723
	Thallium	106		108	108	109		0.942
EPA 8270E	Acetochlor	110	114	99.7	113	3.48		7.42
	Alachlor	107	105	96.7	102	1.21		5.49
	Aldrin	9.05	31.5	39.5	38.8	111		1.78
	Alpha-BHC	87.8	88.0	80.5	81.5	0.258		1.26
	Alpha-Chlordane	80.8	83.1	67.3	66.8	2.83		0.685
	Ametryn	106	120	141	113	13.0		21.4
	Atrazine	106	103			2.90		3.83
	Atrazine Desethyl	73.2	63.8	72.2	55.2	13.6		19.7
	Azinphos Methyl	143	137	115	109	4.09		4.96
	Azoxystrobin	93.6	106			12.0		7.55
	Beta-BHC	105	105	106	106	0.374		0.714
	Beta-Cyfluthrin	144	130	140	161	9.97		13.7
	Bifenthrin	72.4	76.2	68.3	76.1	5.13		10.8
	Bromacil	116	119	114	122	2.20		6.53
	Butylate	43.1	40.0	42.9	50.4	7.31		16.0
	Caffeine	120	91.3	103	106	27.4		1.77
	Carbophenothion	104	113	87.9	101	7.66		14.1
	Carfentrazone Ethyl	127	132	108	113	3.91		4.27
	Chlorothalonil	140	134	149	147	4.67		1.21
	Chlorpyrifos Ethyl	93.5	94.9	77.1	79.6	1.52		3.23
	Chlorpyrifos Methyl	92.5	96.1	86.6	95.7	3.82		9.96
	Cis-Nonachlor	81.5	81.5	69.7	71.8	0.0076		3.01
	Cyanazine	216	224	201	203	3.69		1.08
	Cypermethrin	128	115	125	157	10.0		22.6
	Dacthal	94.1	95.5	75.9	77.2	1.50		1.75
	DDD-p,p'	79.1	80.5	66.6	68.9	1.75		3.50
	DDE-p,p'	74.1	77.4	32.5	34.5	4.40		3.49
	DDT-p,p'	81.0	84.0	60.3	59.8	3.56		0.711
	Delta-BHC	116	116	116	115	0.566		0.555
	Deltamethrin	129	144	97.2	123	10.7		23.4

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Demeton	64.7	47.9	91.2	97.4	30.0	6.56
	Diazinon	121	115	108	119	4.67	9.66
	Dichlobenil	41.6	45.7	53.8	48.7	9.38	9.82
	Dicofol	87.1	86.9	80.9	69.5	0.277	15.1
	Dieldrin	86.0	89.7	63.0	60.3	4.24	4.08
	Difenoconazole	90.4	90.1	208	208	0.285	0.291
	Dimethenamid	91.1	91.4	79.5	96.1	0.366	11.1
	Disulfoton	71.8	53.9	78.9	79.7	28.4	0.947
	Dithiopyr	110	112	97.5	111	1.25	12.1
	Endosulfan I	82.2	86.4	64.4	61.3	4.94	4.93
	Endosulfan II	88.1	85.5	72.7	69.8	3.00	3.86
	Endosulfan Sulfate	101	99.2	89.4	87.4	2.06	2.30
	Endrin	81.4	81.8	66.0	63.2	0.509	4.31
	Endrin Aldehyde	82.6	73.4	62.6	59.3	11.8	5.32
	Endrin Ketone	96.0	89.8	87.1	81.4	6.66	6.71
	EPTC	36.8	40.3	42.9	52.1	9.21	19.4
	Esfenvalerate	147	132	164	199	10.7	19.4
	Ethalfuralin	70.5	72.9	58.6	56.1	3.32	4.39
	Ethion	98.1	93.3	86.0	97.0	5.06	12.0
	Ethoprop	90.6	88.9	92.6	94.9	1.82	2.52
	Fenamiphos	92.2	82.2	78.3	78.2	11.6	0.174
	Fenbuconazole	139	132	134	137	5.78	2.32
	Fenpropathrin	92.6	90.3	87.1	94.3	2.56	7.84
	Fipronil	84.4	89.5	123	128	5.88	4.12
	Fipronil Desulfinyl	115	120	114	127	4.07	9.68
	Fipronil Sulfide	93.2	96.9	84.2	93.2	3.90	10.2
	Fipronil Sulfone	84.8	91.1	83.7	92.5	7.13	9.02
	Fluazifop-P-butyl	112	118	108	116	6.02	7.21
	Fludioxonil	109	108	95.0	108	0.927	13.1
	Flumioxazin	244	233	247	237	4.40	3.88
	Flutolanil	111	109	103	109	1.81	3.33
	Fluxapyroxad	103	107	95.5	100	3.69	3.90
	Fonofos	79.2	82.1	73.0	92.4	3.71	23.4
	Gamma-BHC	97.0	97.5	94.6	94.3	0.474	0.253
	Gamma-Chlordane	76.2	79.1	57.2	57.0	3.85	0.299
	Heptachlor	69.4	70.4	56.1	56.6	1.40	0.965
	Heptachlor Epoxide	84.1	86.0	64.6	63.4	2.18	1.94
	Hexachlorobenzene	59.7	60.9	50.2	52.0	2.02	3.36
	Hexazinone	104	105	91.6	99.9	1.61	6.85
	Imazalil	99.4	81.6	111	103	19.7	7.54
	Iprodione	133	128	121	119	3.58	1.76
	Kepone	128	122	106	109	4.81	3.32
	Lambda-Cyhalothrin	145	121	134	178	18.3	28.7
	Malathion	111	113	92.7	101	1.95	8.05
	Metalaxyl	94.6	96.9	91.9	104	2.39	12.6
	Methoxychlor	89.4	88.6	69.2	68.7	0.871	0.682
	Metolachlor	112	103			8.30	1.60
	Metribuzin	103	96.1	95.8	104	6.99	8.05
	Mevinphos	74.5	74.9	84.1	87.9	0.520	4.39
	MGK-264	34.1	61.0	79.2	77.0	56.6	2.82
	Mirex	58.1	60.2	63.0	65.7	3.52	4.20
	Molinate	55.3	51.6	55.0	60.8	6.91	10.1
	Myclobutanil	107	104	98.0	101	2.50	2.76
	Naled	24.3	24.0	22.3	24.7	1.33	10.3

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270E	Norflurazon	101	107	92.7	98.1	5.92		5.61
	Oxadiazon	98.3	97.6	82.2	91.5	0.738		6.27
	Oxyfluorfen	118	112	116	127	5.46		8.93
	Parathion Ethyl	91.2	96.3	90.6	91.4	5.47		0.927
	Parathion Methyl	87.8	101	102	114	14.2		11.2
	Pendimethalin	87.9	83.1	89.6	91.8	5.61		2.47
	Permethrin	114	106	76.3	99.7	6.91		17.8
	Phenothrin	21.1	49.0	71.3	95.1	79.6		28.7
	Phorate	80.8	75.0	88.7	95.5	7.53		7.36
	Piperonyl Butoxide	94.2	84.0	89.1	87.1	11.4		2.30
	Prallethrin	31.8	50.6	78.2	69.9	45.6		11.2
	Prodiamine	56.1	52.7	69.1	83.0	6.24		18.4
	Prometon	104	102	101	102	2.80		0.208
	Prometryn	112	114	98.8	105	1.86		5.95
	Pronamide	107	107	97.7	113	0.628		14.1
	Propiconazole	104	105	101	112	0.635		7.54
	Pyriproxyfen	103	102	84.4	91.9	1.20		8.58
	Simazine	105	102			2.20		5.41
	Sulfentrazone	103	116	103	110	12.2		7.09
	Tau-Fluvalinate	104	93.5	155	147	11.0		5.34
	Tebuconazole	57.0	58.0	72.9	78.6	1.69		5.19
	Terbufos	104	96.9	100	111	7.05		9.90
	Terbutylazine	98.0	98.5	92.3	93.8	0.490		1.61
	Tetramethrin	18.4	45.1	58.6	64.8	83.9		10.0
	Trans-Nonachlor	75.3	77.3	60.8	63.6	2.64		4.41
	Triclosan Methyl	83.6	86.5	58.9	60.5	3.32		2.73
	Trifluralin	73.9	73.7	57.3	57.5	0.279		0.219
EPA 8276	Chlordane	81.5	86.6	93.9	92.3	6.03		1.68
	Toxaphene	86.9	81.4	91.4	99.3	6.54		8.27
EPA 8321B	2,4-D	118		98.6	111			9.08
	2,4,5-T	121		107	116			7.96
	3-Hydroxycarbofuran	86.7		85.8	90.3			5.07
	Acesulfame K	101		145	144			0.811
	Acetaminophen	107		104	115			10.7
	Acetamiprid	88.4		82.9	85.1			2.62
	Afidopyropen	64.9		58.4	50.0			15.6
	Aldicarb	75.3		78.7	83.9			6.39
	Aldicarb Sulfone	87.3		96.2	106			9.60
	Aldicarb Sulfoxide	82.3		38.3	42.3			9.77
	AMPA	115		91.9	91.6			0.390
	Bentazon	113		95.2	107			7.74
	Benzovindiflupyr	86.8		80.7	89.7			10.6
	Carbamazepine	101		94.2	105			10.1
	Carbaryl	78.8		76.8	79.3			3.32
	Carbofuran	79.2		79.7	83.2			4.33
	Clothianidin	99.5		95.7	105			9.03
	Dinotefuran	89.4		96.8	100			3.39
	Diuron	107		94.1	105			8.95
	Endothall	74.0		99.9	104			3.67
	Fenuron	98.9		88.1	95.5			8.08
	Fluridone	95.1		86.9	96.2			10.1
	Glufosinate	104		105	102			2.67
	Glyphosate	97.1		79.6	78.4			1.57
	Hydrocodone	95.4		90.2	98.4			8.75

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision LCS	SMP	MS
EPA 8321B	Ibuprofen	88.8	96.8	89.8			7.51
	Imazapyr	107	94.4	105			8.09
	Imidacloprid	100	110	120			7.84
	Linuron	84.9	76.0	88.3			15.0
	Mandestrobin	86.1	82.9	91.3			9.64
	MCPP	116	107	118			9.10
	Methiocarb	79.0	77.6	81.6			5.08
	Methomyl	86.9	84.3	90.9			7.57
	Naproxen	86.6	86.3	92.2			6.67
	Oxamyl	88.7	89.8	96.7			7.37
	Primidone	105	102	107			4.91
	Propoxur	83.6	81.5	86.4			5.93
	Pyraclostrobin	82.4	78.6	87.7			10.9
	Sucralose	101	101	103			1.65
	Thiamethoxam	93.5	102	110			7.64
	Tolfenpyrad	48.2	47.8	54.0			12.4
	Triclopyr	114	103	109			5.20

Reference Method Descriptions

Method	Description	Associated Samples
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2265668, 2265669
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2265668, 2265669
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2265665
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2265666
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2265665, 2265667
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2265663
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2265664
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2265668, 2265669

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 200.7 Rev. 4.4	07/28/2021	08/02/2021 14:50	Elliott D. Healy	08/04/2021 15:22	Betina Topolski	2265668
	07/28/2021	08/02/2021 14:50	Elliott D. Healy	08/04/2021 15:27	Betina Topolski	2265669
	07/28/2021	08/09/2021 13:00	Elliott D. Healy	08/13/2021 15:46	Josef B Mick	2265668
EPA 200.8 Rev. 5.4	07/28/2021	08/02/2021 14:50	Elliott D. Healy	08/03/2021 21:23	Alexander Thompson	2265668
	07/28/2021	08/02/2021 14:50	Elliott D. Healy	08/03/2021 21:32	Alexander Thompson	2265669
	07/28/2021	08/02/2021 14:50	Elliott D. Healy	08/04/2021 13:57	Alexander Thompson	2265668
	07/28/2021	08/02/2021 14:50	Elliott D. Healy	08/04/2021 14:03	Alexander Thompson	2265669
	07/28/2021	08/09/2021 13:00	Elliott D. Healy	08/10/2021 15:10	Alexander Thompson	2265668
	07/28/2021	08/10/2021 13:10	Elliott D. Healy	08/11/2021 13:41	Alexander Thompson	2265669
	07/28/2021	07/30/2021 08:00	Fe-Val Siddell	08/03/2021 23:31	Arthur Maknenko	2265665
EPA 8270E	07/28/2021	08/02/2021 08:00	Rasheda Ghaffari	08/03/2021 20:13	Michael Poppell	2265666
	07/28/2021	07/30/2021 08:00	Fe-Val Siddell	08/03/2021 09:38	Julie Wi	2265665
EPA 8276	07/28/2021	07/30/2021 08:00	Fe-Val Siddell	08/03/2021 10:34	Julie Wi	2265667
	07/28/2021	07/28/2021 14:47	Pramila Ghimire	07/28/2021 15:11	Juyoung Kim	2265664
EPA 8321B	07/28/2021	07/28/2021 14:47	Pramila Ghimire	07/28/2021 18:58	Pramila Ghimire	2265664
	07/28/2021	07/29/2021 09:00	Hoor Shaik	07/30/2021 02:15	Juyoung Kim	2265664
	07/28/2021	08/04/2021 08:30	Hoor Shaik	08/04/2021 21:25	Juyoung Kim	2265663
SM 2340B	07/28/2021			08/04/2021 15:27	Betina Topolski	2265669
	07/28/2021			08/13/2021 15:46	Josef B Mick	2265668