

Chemical Analysis Report

NW-DIST-2023-04-12-02

Florida DEP Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

Event Description: **NW Run**
Request ID: **RQ-2023-04-10-37**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
160 W Government Street
Suite 208
Pensacola, FL 32502-5794
Attn: Myranda Butler

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Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator

Date Certified: 02-MAY-2023 17:22



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 ESCAMBIA CREEK DOWNSTREAM OF FANNIE RD

Collection Date/Time: 04/11/2023 10:15

Field ID: G4NW0421

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2399809	EPA 8321B	Aldicarb	0.020	U	ug/L	P428314	MS
		Aldicarb Sulfone	0.0020	U	ug/L	P428314	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P428314	
		Carbaryl	0.0020	U	ug/L	P428314	
		Carbofuran	0.0020	U	ug/L	P428314	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P428314	
		Methiocarb	0.0020	U	ug/L	P428314	
		Methomyl	0.0020	U	ug/L	P428314	
		Oxamyl	0.0020	U	ug/L	P428314	
		Propoxur	0.0020	U	ug/L	P428314	
2399810		2,4-D	0.0020	U	ug/L	P428433	MS
		Acesulfame K	0.10	U	ug/L	P428312	
		2,4,5-T	0.0040	U	ug/L	P428433	
		AMPA	0.10	U	ug/L	P428312	
		Acetaminophen	0.0080	U	ug/L	P428433	
		Acetamiprid	0.0020	U	ug/L	P428433	
		Endothall	0.25	U	ug/L	P428312	
		Glufosinate	0.10	U	ug/L	P428312	
		Glyphosate	0.10	U	ug/L	P428312	
		Afidopyropen	0.0020	U	ug/L	P428433	
		Bentazon	8.0E-04	U	ug/L	P428433	
		Sucralose	0.14		ug/L	P428312	
		Benzovindiflupyr	0.0020	U	ug/L	P428433	
		Carbamazepine	8.0E-04	U	ug/L	P428433	
		Clothianidin	0.0020	U	ug/L	P428433	
		Dinotefuran	0.0020	U	ug/L	P428433	
		Diuron	0.0020	U	ug/L	P428433	
		Fenuron	0.032	U	ug/L	P428433	
		Fluridone	8.0E-04	U	ug/L	P428433	
		Imazapyr	0.010	I	ug/L	P428433	
		Hydrocodone	0.0020	U	ug/L	P428433	
		Ibuprofen	0.080	U	ug/L	P428433	
		Imidacloprid	0.0022	I	ug/L	P428433	
		Linuron	0.0040	U	ug/L	P428433	
		Mandestrobin	0.0020	U	ug/L	P428433	
		MCP	0.0020	U	ug/L	P428433	
		Naproxen	0.0080	U	ug/L	P428433	
		Primidone	0.0040	U	ug/L	P428433	
		Pyraclostrobin	0.0020	U	ug/L	P428433	
		Silvex	0.0040	U	ug/L	P428433	
		Thiamethoxam	0.0020	U	ug/L	P428433	
		Tolfenpyrad	0.0020	U	ug/L	P428433	
		Triclopyr	0.0040	U	ug/L	P428433	

Field ID: G4NW0421

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2399813	EPA 8270E	Aldrin	0.67	U	ng/L	P428300	
		Alpha-BHC	0.10	U	ng/L	P428300	
		Alpha-Chlordane	0.21	U	ng/L	P428300	
		PCB-1016	2.1	U	ng/L	P428300	
		Beta-BHC	0.10	U	ng/L	P428300	
		PCB-1221	2.1	U	ng/L	P428300	
		Beta-Cyfluthrin	1.3	U	ng/L	P428300	
		PCB-1232	2.1	U	ng/L	P428300	
		Bifenthrin	0.52	U	ng/L	P428300	
		PCB-1242	2.1	U	ng/L	P428300	
		PCB-1248	2.1	U	ng/L	P428300	
		Chlorothalonil	3.7	U	ng/L	P428300	
		PCB-1254	2.1	U	ng/L	P428300	
		Cis-Nonachlor	0.21	U	ng/L	P428300	
		PCB-1260	2.1	U	ng/L	P428300	
		Cypermethrin	1.6	U	ng/L	P428300	
		Dacthal	0.16	U	ng/L	P428300	
		DDD-p,p'	0.26	U	ng/L	P428300	
		DDE-p,p'	0.21	U	ng/L	P428300	
		DDT-p,p'	0.26	U	ng/L	P428300	
		Delta-BHC	0.41	U	ng/L	P428300	
		Deltamethrin	1.3	U	ng/L	P428300	
		Dichlobenil	0.26	U	ng/L	P428300	
		Dicofol	1.3	U	ng/L	P428300	
		Dieldrin	0.41	U	ng/L	P428300	
		Endosulfan I	0.41	U	ng/L	P428300	
		Endosulfan II	0.41	U	ng/L	P428300	
		Endosulfan Sulfate	0.31	U	ng/L	P428300	
		Endrin	0.41	U	ng/L	P428300	
		Endrin Aldehyde	0.78	U	ng/L	P428300	
		Endrin Ketone	0.41	U	ng/L	P428300	
		Esfenvalerate	0.78	U	ng/L	P428300	
		Ethalfuralin	0.16	U	ng/L	P428300	
		Fenpropathrin	0.26	U	ng/L	P428300	
		Gamma-BHC	0.13	U	ng/L	P428300	
		Gamma-Chlordane	0.22	I	ng/L	P428300	
		Heptachlor	0.21	U	ng/L	P428300	
		Heptachlor Epoxide	0.26	U	ng/L	P428300	
		Hexachlorobenzene**	1.0	U	ng/L	P428300	RPD
		Kepone	5.2	U	ng/L	P428300	MS
		Lambda-Cyhalothrin	0.78	U	ng/L	P428300	
		Methoprene	0.78	U	ng/L	P428300	
		Methoxychlor	0.31	U	ng/L	P428300	
		MGK-264	0.29	I	ng/L	P428300	
		Mirex	0.36	U	ng/L	P428300	

Field ID: G4NW0421

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2399813	EPA 8270E	Oxychlorane	0.31	U	ng/L	P428300	
		Permethrin	1.7	U	ng/L	P428300	
		Phenothrin	0.93	U	ng/L	P428300	
		Piperonyl Butoxide	0.26	I	ng/L	P428300	
		Prallethrin	2.1	U	ng/L	P428300	
		Tau-Fluvalinate	0.26	U	ng/L	P428300	
		Tetramethrin	0.78	U	ng/L	P428300	
		Trans-Nonachlor	0.21	U	ng/L	P428300	
		Triclosan Methyl	0.16	U	ng/L	P428300	
		Trifluralin	0.21	U	ng/L	P428300	
	EPA 8276	Chlordane	2.1	U	ng/L	P428300	
		Toxaphene	16	U	ng/L	P428300	
2399814	EPA 8270E	Oxybenzone**	11	U	ng/L	P428317	
		Acetochlor	0.33	I	ng/L	P428317	
		Octinoxate**	21	U	ng/L	P428317	
		Alachlor	0.42	U	ng/L	P428317	
		Avobenzone**	110	U	ng/L	P428317	
		Ametryn	1.2	U	ng/L	P428317	
		Atrazine	1.8		ng/L	P428317	
		PBDE-47**	4.2	U	ng/L	P428317	
		Atrazine Desethyl	1.4	U	ng/L	P428317	
		PBDE-99**	5.3	U	ng/L	P428317	
		Azinphos Methyl	3.2	U	ng/L	P428317	
		Tri-o-cresyl Phosphate**	6.3	U	ng/L	P428317	
		Azoxystrobin	0.42	U	ng/L	P428317	
		Bromacil	0.63	U	ng/L	P428317	
		2-Ethylhexyl	13	U	ng/L	P428317	
		2,3,4,5-tetrabromobenzoate (EHTBB)**					
		Butylate	0.21	U	ng/L	P428317	
		Dechlorane Plus**	32	U	ng/L	P428317	
		Caffeine**	20	IV	ng/L	P428317	
		Dechlorane 602**	5.3	U	ng/L	P428317	
		Carbophenothion	0.53	U	ng/L	P428317	
		Dechlorane 603**	4.2	U	ng/L	P428317	
		Carfentrazone Ethyl	0.16	U	ng/L	P428317	
		Hexabromobenzene**	6.3	U	ng/L	P428317	
		Chlorfenapyr	0.32	U	ng/L	P428317	
		PBB-153**	8.4	U	ng/L	P428317	
		Chlorpyrifos Ethyl	0.32	U	ng/L	P428317	
		Pentabromotoluene**	3.2	U	ng/L	P428317	
		Chlorpyrifos Methyl	0.11	U	ng/L	P428317	
		Tris(2-chloroethyl) phosphate (TCEP)**	74	U	ng/L	P428317	
		Coumaphos	1.1	U	ng/L	P428317	
		Tris(1-chloro-2-propyl) phosphate (TCPP)**	16	U	ng/L	P428317	
		Cyanazine	5.3	U	ng/L	P428317	

RPD

Field ID: G4NW0421

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2399814	EPA 8270E	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)**	2.6	U	ng/L	P428317	MS
		Cyprodinil	0.21	U	ng/L	P428317	
		Tetradecachloro-m-terphenyl**	7.9	U	ng/L	P428317	
		Demeton	3.7	U	ng/L	P428317	
		Diazinon	0.13	U	ng/L	P428317	
		Difenoconazole	0.63	U	ng/L	P428317	
		Dimethenamid	0.11	U	ng/L	P428317	
		Dimethomorph	0.32	U	ng/L	P428317	
		Disulfoton	0.63	U	ng/L	P428317	
		Dithiopyr	1.1	U	ng/L	P428317	
		EPTC	0.53	U	ng/L	P428317	
		Ethion	0.32	U	ng/L	P428317	
		Ethoprop	0.13	U	ng/L	P428317	
		Etridiazole	0.11	U	ng/L	P428317	
		Fenamiphos	0.47	U	ng/L	P428317	
		Fenbuconazole	0.53	U	ng/L	P428317	
		Fipronil	0.21	U	ng/L	P428317	
		Fipronil Desulfinyl**	0.11	U	ng/L	P428317	
		Fipronil Sulfide	0.11	U	ng/L	P428317	
		Fipronil Sulfone	0.11	U	ng/L	P428317	
		Fluazifop-P-butyl	0.11	U	ng/L	P428317	
		Fludioxonil	0.11	U	ng/L	P428317	
		Flumioxazin	3.2	U	ng/L	P428317	
		Flutolanil	0.11	U	ng/L	P428317	
		Fluxapyroxad	0.26	U	ng/L	P428317	
		Fonofos	0.16	U	ng/L	P428317	
		Hexazinone	0.98	I	ng/L	P428317	
		Imazalil	0.68	U	ng/L	P428317	
		Iprodione	0.53	U	ng/L	P428317	
		Loratadine**	0.32	U	ng/L	P428317	
		Malathion	0.37	U	ng/L	P428317	
		Metalaxyl	0.53	U	ng/L	P428317	MS
		Metolachlor	3.5	I	ng/L	P428317	
		Metribuzin	0.42	U	ng/L	P428317	
		Mevinphos	1.1	U	ng/L	P428317	RPD
		Molinate	0.26	U	ng/L	P428317	
		Myclobutanil	0.37	U	ng/L	P428317	
		Naled	2.6	U	ng/L	P428317	
		Napropamide	0.74	U	ng/L	P428317	
		Norflurazon	1.3	I	ng/L	P428317	
		Oxadiazon	0.37	U	ng/L	P428317	
		Oxyfluorfen	0.21	U	ng/L	P428317	
		Parathion Ethyl	0.16	U	ng/L	P428317	
		Parathion Methyl	0.21	U	ng/L	P428317	

Field ID: G4NW0421

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2399814	EPA 8270E	Pendimethalin	0.79	U	ng/L	P428317	
		Phenytol**	5.6	U	ng/L	P428317	
		Phorate	0.26	U	ng/L	P428317	
		Prodiamine	0.21	U	ng/L	P428317	
		Prometon	3.2	U	ng/L	P428317	
		Prometryn	0.37	U	ng/L	P428317	
		Pronamide	0.11	U	ng/L	P428317	
		Propanil	0.11	U	ng/L	P428317	
		Propargite	0.84	U	ng/L	P428317	
		Propiconazole	0.63	U	ng/L	P428317	
		Pyraflufen Ethyl	0.32	U	ng/L	P428317	
		Pyridaben	1.5	U	ng/L	P428317	
		Pyriproxyfen	0.26	U	ng/L	P428317	
		Simazine	0.26	U	ng/L	P428317	
		Stirophos	0.42	U	ng/L	P428317	
		Sulfentrazone	1.5	U	ng/L	P428317	
		Tebuconazole	1.5	U	ng/L	P428317	
		Terbufos	0.21	U	ng/L	P428317	
		Terbutylazine	0.21	U	ng/L	P428317	
		Thiobencarb	0.53	U	ng/L	P428317	
		Triadimefon	0.16	U	ng/L	P428317	

Ref. Method and Comment:

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

EPA 8270E: MS accuracy for some parameters not assessed due to high content of these parameters in the sample spiked. V - Due to the presence of caffeine in both the Method Blank and the sample.

**Sample Location: BRUSHY CREEK UPSTREAM OF ARTHUR
 BROWN RD**

Collection Date/Time: 04/11/2023 11:52

Field ID: G5NW0002

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2399817	EPA 200.7 Rev. 4.4	Calcium	1.96		mg/L	P428416	
		Iron	590		ug/L	P428416	
		Magnesium	1.0		mg/L	P428416	
		Potassium	0.61	I	mg/L	P428416	
		Sodium	3.1		mg/L	P428416	
		Strontium	11.6		ug/L	P428416	
		Tin	3.0	U	ug/L	P428416	
		Titanium	0.95	I	ug/L	P428416	
		Vanadium	2.0	U	ug/L	P428416	
		Zinc	5.0	U	ug/L	P428416	
	EPA 200.8 Rev. 5.4	Aluminum	146		ug/L	P428416	
		Antimony	0.050	U	ug/L	P428416	
		Arsenic	0.32		ug/L	P428416	
		Barium	28.3		ug/L	P428416	
		Beryllium	0.032	I	ug/L	P428416	
		Boron	12.3		ug/L	P428416	
		Cadmium	0.020	U	ug/L	P428416	
		Chromium	0.40	U	ug/L	P428416	
		Cobalt	0.323		ug/L	P428416	
		Copper	0.40	U	ug/L	P428416	
		Lead	0.21	I	ug/L	P428416	
		Manganese	22.3		ug/L	P428416	
		Molybdenum	0.15	U	ug/L	P428416	
		Nickel	0.52	I	ug/L	P428416	
		Selenium	0.20	U	ug/L	P428416	
		Silver	0.010	U	ug/L	P428416	
		Thallium	0.10	U	ug/L	P428416	
	SM 2340 B-2011	Hardness	9.0		mg/L	P428416	

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P428416

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Strontium	2.0	U	ug/L
Tin	3.0	U	ug/L
Titanium	0.75	U	ug/L
Vanadium	2.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P428416

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Barium	0.20	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
Cobalt	0.020	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Manganese	0.10	U	ug/L
Molybdenum	0.15	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 8270E

Batch ID: P428300

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	3.6	U	ng/L
Chlorothalonil	3.6	U	ng/L
Cis-Nonachlor	0.20	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P428300

Component	Result	Code	Units
Cis-Nonachlor	0.20	U	ng/L
Cypermethrin	1.5	U	ng/L
Cypermethrin	1.5	U	ng/L
Dacthal	0.15	U	ng/L
Dacthal	0.15	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDT-p,p'	0.25	U	ng/L
DDT-p,p'	0.25	U	ng/L
Delta-BHC	0.40	U	ng/L
Delta-BHC	0.40	U	ng/L
Deltamethrin	1.2	U	ng/L
Deltamethrin	1.2	U	ng/L
Dichlobenil	0.25	U	ng/L
Dichlobenil	0.25	U	ng/L
Dicofol	1.2	U	ng/L
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.40	U	ng/L
Endrin	0.40	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Ketone	0.40	U	ng/L
Endrin Ketone	0.40	U	ng/L
Esfenvalerate	0.75	U	ng/L
Esfenvalerate	0.75	U	ng/L
Ethalfuralin	0.15	U	ng/L
Ethalfuralin	0.15	U	ng/L
Fenpropathrin	0.25	U	ng/L
Fenpropathrin	0.25	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Kepone	5.0	U	ng/L
Kepone	5.0	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P428300

Component	Result	Code	Units
Lambda-Cyhalothrin	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoxychlor	0.30	U	ng/L
Methoxychlor	0.30	U	ng/L
MGK-264	0.20	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.35	U	ng/L
Mirex	0.35	U	ng/L
Oxychlordane	0.30	U	ng/L
Oxychlordane	0.30	U	ng/L
PCB-1016	2.0	U	ng/L
PCB-1016	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1242	2.0	U	ng/L
PCB-1242	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1254	2.0	U	ng/L
PCB-1254	2.0	U	ng/L
PCB-1260	2.0	U	ng/L
PCB-1260	2.0	U	ng/L
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: P428317

Component	Result	Code	Units
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	12	U	ng/L
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	12	U	ng/L
Acetochlor	0.20	U	ng/L
Acetochlor	0.20	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E
Batch ID: P428317

Component	Result	Code	Units
Alachlor	0.40	U	ng/L
Alachlor	0.40	U	ng/L
Ametryn	1.1	U	ng/L
Ametryn	1.1	U	ng/L
Atrazine	0.20	U	ng/L
Atrazine	0.20	U	ng/L
Atrazine Desethyl	1.3	U	ng/L
Atrazine Desethyl	1.3	U	ng/L
Avobenzone	100	U	ng/L
Avobenzone	100	U	ng/L
Azinphos Methyl	3.0	U	ng/L
Azinphos Methyl	3.0	U	ng/L
Azoxystrobin	0.40	U	ng/L
Azoxystrobin	0.40	U	ng/L
Bromacil	0.60	U	ng/L
Bromacil	0.60	U	ng/L
Butylate	0.20	U	ng/L
Butylate	0.20	U	ng/L
Caffeine	7.5	U	ng/L
Caffeine	10	I	ng/L
Carbophenothion	0.50	U	ng/L
Carbophenothion	0.50	U	ng/L
Carfentrazone Ethyl	0.15	U	ng/L
Carfentrazone Ethyl	0.15	U	ng/L
Chlorfenapyr	0.30	U	ng/L
Chlorfenapyr	0.30	U	ng/L
Chlorpyrifos Ethyl	0.30	U	ng/L
Chlorpyrifos Ethyl	0.30	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
Coumaphos	1.0	U	ng/L
Coumaphos	1.0	U	ng/L
Cyanazine	5.0	U	ng/L
Cyanazine	5.0	U	ng/L
Cyprodinil	0.20	U	ng/L
Cyprodinil	0.20	U	ng/L
Dechlorane 602	5.0	U	ng/L
Dechlorane 602	5.0	U	ng/L
Dechlorane 603	4.0	U	ng/L
Dechlorane 603	4.0	U	ng/L
Dechlorane Plus	30	U	ng/L
Dechlorane Plus	30	U	ng/L
Demeton	3.5	U	ng/L
Demeton	3.5	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
Dimethomorph	0.30	U	ng/L
Dimethomorph	0.30	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P428317

Component	Result	Code	Units
Disulfoton	0.60	U	ng/L
Disulfoton	0.60	U	ng/L
Dithiopyr	1.0	U	ng/L
Dithiopyr	1.0	U	ng/L
EPTC	0.50	U	ng/L
EPTC	0.50	U	ng/L
Ethion	0.30	U	ng/L
Ethion	0.30	U	ng/L
Ethoprop	0.12	U	ng/L
Ethoprop	0.12	U	ng/L
Etridiazole	0.10	U	ng/L
Etridiazole	0.10	U	ng/L
Fenamiphos	0.45	U	ng/L
Fenamiphos	0.45	U	ng/L
Fenbuconazole	0.50	U	ng/L
Fenbuconazole	0.50	U	ng/L
Fipronil	0.20	U	ng/L
Fipronil	0.20	U	ng/L
Fipronil Desulfinyl	0.10	U	ng/L
Fipronil Desulfinyl	0.10	U	ng/L
Fipronil Sulfide	0.10	U	ng/L
Fipronil Sulfide	0.10	U	ng/L
Fipronil Sulfone	0.10	U	ng/L
Fipronil Sulfone	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.10	U	ng/L
Fludioxonil	0.10	U	ng/L
Flumioxazin	3.0	U	ng/L
Flumioxazin	3.0	U	ng/L
Flutolanil	0.10	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.25	U	ng/L
Fluxapyroxad	0.25	U	ng/L
Fonofos	0.15	U	ng/L
Fonofos	0.15	U	ng/L
Hexabromobenzene	6.0	U	ng/L
Hexabromobenzene	6.0	U	ng/L
Hexazinone	0.50	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.65	U	ng/L
Imazalil	0.65	U	ng/L
Iprodione	0.50	U	ng/L
Iprodione	0.50	U	ng/L
Loratadine	0.30	U	ng/L
Loratadine	0.30	U	ng/L
Malathion	0.35	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.50	U	ng/L
Metalaxyl	0.50	U	ng/L
Metolachlor	0.75	U	ng/L
Metolachlor	0.75	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P428317

Component	Result	Code	Units
Metribuzin	0.40	U	ng/L
Metribuzin	0.40	U	ng/L
Mevinphos	1.0	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.25	U	ng/L
Molinate	0.25	U	ng/L
Myclobutanil	0.35	U	ng/L
Myclobutanil	0.35	U	ng/L
Naled	2.5	U	ng/L
Naled	2.5	U	ng/L
Napropamide	0.70	U	ng/L
Napropamide	0.70	U	ng/L
Norflurazon	1.0	U	ng/L
Norflurazon	1.0	U	ng/L
Octinoxate	20	U	ng/L
Octinoxate	20	U	ng/L
Oxadiazon	0.35	U	ng/L
Oxadiazon	0.35	U	ng/L
Oxybenzone	10	U	ng/L
Oxybenzone	10	U	ng/L
Oxyfluorfen	0.20	U	ng/L
Oxyfluorfen	0.20	U	ng/L
Parathion Ethyl	0.15	U	ng/L
Parathion Ethyl	0.15	U	ng/L
Parathion Methyl	0.20	U	ng/L
Parathion Methyl	0.20	U	ng/L
PBB-153	8.0	U	ng/L
PBB-153	8.0	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-99	5.0	U	ng/L
PBDE-99	5.0	U	ng/L
Pendimethalin	0.75	U	ng/L
Pendimethalin	0.75	U	ng/L
Pentabromotoluene	3.0	U	ng/L
Pentabromotoluene	3.0	U	ng/L
Phenytoin	5.3	U	ng/L
Phenytoin	5.3	U	ng/L
Phorate	0.25	U	ng/L
Phorate	0.25	U	ng/L
Prodiamine	0.20	U	ng/L
Prodiamine	0.20	U	ng/L
Prometon	3.0	U	ng/L
Prometon	3.0	U	ng/L
Prometryn	0.35	U	ng/L
Prometryn	0.35	U	ng/L
Pronamide	0.10	U	ng/L
Pronamide	0.10	U	ng/L
Propanil	0.10	U	ng/L
Propanil	0.10	U	ng/L
Propargite	0.80	U	ng/L
Propargite	0.80	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P428317

Component	Result	Code	Units
Propiconazole	0.60	U	ng/L
Propiconazole	0.60	U	ng/L
Pyraflufen Ethyl	0.30	U	ng/L
Pyraflufen Ethyl	0.30	U	ng/L
Pyridaben	1.4	U	ng/L
Pyridaben	1.4	U	ng/L
Pyriproxyfen	0.25	U	ng/L
Pyriproxyfen	0.25	U	ng/L
Simazine	0.25	U	ng/L
Simazine	0.25	U	ng/L
Stirophos	0.40	U	ng/L
Stirophos	0.40	U	ng/L
Sulfentrazone	1.4	U	ng/L
Sulfentrazone	1.4	U	ng/L
Tebuconazole	1.4	U	ng/L
Tebuconazole	1.4	U	ng/L
Terbufos	0.20	U	ng/L
Terbufos	0.20	U	ng/L
Terbutylazine	0.20	U	ng/L
Terbutylazine	0.20	U	ng/L
Tetradecachloro-m-terphenyl	7.5	U	ng/L
Tetradecachloro-m-terphenyl	7.5	U	ng/L
Thiobencarb	0.50	U	ng/L
Thiobencarb	0.50	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Triadimefon	0.15	U	ng/L
Triadimefon	0.15	U	ng/L
Tris(1-chloro-2-propyl) phosphate (TCPP)	15	U	ng/L
Tris(1-chloro-2-propyl) phosphate (TCPP)	15	U	ng/L
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	2.5	U	ng/L
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	2.5	U	ng/L
Tris(2-chloroethyl) phosphate (TCEP)	70	U	ng/L
Tris(2-chloroethyl) phosphate (TCEP)	70	U	ng/L

Reference Method: EPA 8276

Batch ID: P428300

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

Reference Method: EPA 8321B

Batch ID: P428312

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P428312

Component	Result	Code	Units
Glyphosate	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P428314

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

Reference Method: EPA 8321B
Batch ID: P428433

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.032	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.080	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Silvex	0.0040	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P428416

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	104		P	80 - 120
Iron	103		P	80 - 120
Magnesium	105		P	80 - 120
Potassium	103		P	80 - 120
Sodium	105		P	80 - 120
Strontium	101		P	80 - 120
Tin	105		P	80 - 120
Titanium	102		P	80 - 120
Vanadium	104		P	80 - 120
Zinc	106		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P428416

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	101		P	85 - 115
Antimony	104		P	85 - 115
Arsenic	101		P	85 - 115
Barium	104		P	85 - 115
Beryllium	94.7		P	85 - 115
Boron	98.8		P	85 - 115
Cadmium	102		P	85 - 115
Chromium	101		P	85 - 115
Cobalt	105		P	85 - 115
Copper	103		P	85 - 115
Lead	102		P	85 - 115
Manganese	99.2		P	85 - 115
Molybdenum	100		P	85 - 115
Nickel	103		P	85 - 115
Selenium	99.7		P	85 - 115
Silver	103		P	85 - 115
Thallium	101		P	85 - 115

Reference Method: EPA 8270E

Batch ID: P428300

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	57.0		P	10 - 92.0
Alpha-BHC	98.2		P	75 - 107
Alpha-Chlordane	91.4		P	50 - 108
Beta-BHC	85.5		P	36 - 138
Beta-Cyfluthrin	81.9		P	20 - 161
Bifenthrin	46.4		P	10 - 119
Chlorothalonil	84.4		P	26 - 186
Cis-Nonachlor	88.3		P	42 - 119
Cypermethrin	69.6		P	22 - 150
Dacthal	94.7		P	72 - 119
DDD-p,p'	83.6		P	45 - 107
DDE-p,p'	83.7		P	48 - 106
DDT-p,p'	78.9		P	48 - 110
Delta-BHC	94.7		P	54 - 140
Deltamethrin	90.8		P	22 - 189

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P428300

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Dichlobenil	100		P	36 - 117
Dicofol	93.4		P	46 - 155
Dieldrin	85.9		P	54 - 110
Endosulfan I	90.2		P	59 - 105
Endosulfan II	115		P	51 - 118
Endosulfan Sulfate	88.0		P	57 - 121
Endrin	92.3		P	10 - 120
Endrin Aldehyde	83.5		P	34 - 118
Endrin Ketone	91.9		P	69 - 177
Esfenvalerate	76.1		P	23 - 168
Ethalfuralin	79.2		P	49 - 99.0
Fenpropathrin	92.6		P	34 - 117
Gamma-BHC	74.5		P	72 - 117
Gamma-Chlordane	94.6		P	43 - 106
Heptachlor	73.5		P	41 - 98.0
Heptachlor Epoxide	77.4		P	57 - 106
Hexachlorobenzene	70.5		P	36 - 99.0
Kepone	209		P	16 - 215
Lambda-Cyhalothrin	65.9		P	21 - 177
Methoprene	69.8		P	10 - 119
Methoxychlor	111		P	60 - 112
MGK-264	76.2		P	26 - 122
Mirex	63.2		P	10 - 169
Oxychlordane	87.2		P	43 - 105
PCB-1016	64.8		P	48 - 112
PCB-1260	67.2		P	44 - 118
Permethrin	75.6		P	24 - 148
Phenothrin	63.2		P	10 - 106
Piperonyl Butoxide	82.9		P	10 - 139
Prallethrin	97.9		P	17 - 109
Tau-Fluvalinate	67.1		P	13 - 131
Tetramethrin	77.4		P	10 - 132
Trans-Nonachlor	98.7		P	44 - 106
Triclosan Methyl	88.7		P	59 - 109
Trifluralin	83.7		P	44 - 101

Reference Method: EPA 8270E
Batch ID: P428317

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	95.8		P	42 - 162
Acetochlor	92.6		P	69 - 123
Alachlor	88.3		P	65 - 118
Ametryn	132		P	58 - 141
Atrazine	107		P	73 - 118
Atrazine Desethyl	107		P	32 - 125
Avobenzone	116		P	40 - 203
Azinphos Methyl	67.0		P	36 - 197
Azoxystrobin	103		P	58 - 226
Bromacil	104		P	48 - 120
Butylate	53.4		P	27 - 85.0
Caffeine	93.0		P	40 - 137

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
 Batch ID: P428317

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Carbophenothion	86.5		P	54 - 132
Carfentrazone Ethyl	119		P	60 - 142
Chlorfenapyr	96.6		P	53 - 117
Chlorpyrifos Ethyl	78.9		P	59 - 116
Chlorpyrifos Methyl	77.0		P	66 - 119
Coumaphos	79.7		P	11 - 234
Cyanazine	190		P	61 - 248
Cyprodinil	96.5		P	50 - 147
Dechlorane 602	99.9		P	50 - 150
Dechlorane 603	103		P	50 - 150
Dechlorane Plus	99.4		P	47 - 182
Demeton	67.7		P	30 - 138
Diazinon	99.7		P	67 - 126
Difenoconazole	82.0		P	38 - 205
Dimethenamid	93.0		P	57 - 111
Dimethomorph	90.7		P	16 - 212
Disulfoton	71.7		P	46 - 126
Dithiopyr	89.7		P	62 - 115
EPTC	54.8		P	28 - 80.0
Ethion	75.4		P	24 - 122
Ethoprop	71.6		P	62 - 113
Etridiazole	64.5		P	28 - 92.0
Fenamiphos	116		P	57 - 128
Fenbuconazole	118		P	52 - 155
Fipronil	104		P	63 - 130
Fipronil Desulfinyl	83.3		P	61 - 130
Fipronil Sulfide	86.6		P	56 - 117
Fipronil Sulfone	96.0		P	52 - 118
Fluazifop-P-butyl	117		P	61 - 128
Fludioxonil	120		P	59 - 129
Flumioxazin	134		P	30 - 250
Flutolanil	85.2		P	53 - 127
Fluxapyroxad	97.3		P	42 - 132
Fonofos	108		P	61 - 110
Hexabromobenzene	126		P	50 - 150
Hexazinone	97.0		P	46 - 139
Imazalil	105		P	40 - 139
Iprodione	87.3		P	40 - 146
Loratadine	75.5		P	10 - 224
Malathion	100		P	61 - 135
Metalaxyl	93.2		P	58 - 121
Metolachlor	108		P	64 - 118
Metribuzin	101		P	45 - 245
Mevinphos	62.7		P	49 - 118
Molinate	72.8		P	42 - 92.0
Myclobutanil	119		P	55 - 127
Naled	60.9		P	10 - 114
Napropamide	85.4		P	39 - 121
Norflurazon	127		P	55 - 129
Octinoxate	92.1		P	26 - 166
Oxadiazon	101		P	54 - 115
Oxybenzone	89.1		P	49 - 135

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P428317

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Oxyfluorfen	116		P	64 - 139
Parathion Ethyl	86.2		P	70 - 111
Parathion Methyl	105		P	76 - 136
PBB-153	108		P	50 - 150
PBDE-47	85.7		P	41 - 148
PBDE-99	86.7		P	38 - 147
Pendimethalin	106		P	52 - 118
Pentabromotoluene	109		P	50 - 150
Phenytoin	97.3		P	10 - 162
Phorate	79.3		P	40 - 122
Prodiamine	52.4		P	26 - 141
Prometon	87.4		P	54 - 122
Prometryn	118		P	61 - 128
Pronamide	108		P	72 - 121
Propanil	90.2		P	45 - 144
Propargite	103		P	10 - 199
Propiconazole	93.4		P	56 - 127
Pyraflufen Ethyl	110		P	56 - 140
Pyridaben	136		P	26 - 211
Pyriproxyfen	51.9		P	33 - 194
Simazine	103		P	67 - 121
Stiropfos	86.7		P	20 - 142
Sulfentrazone	96.2		P	21 - 144
Tebuconazole	68.6		P	10 - 122
Terbufos	73.8		P	60 - 129
Terbuthylazine	88.6		P	69 - 113
Tetradecachloro-m-terphenyl	143		P	70 - 200
Thiobencarb	114		P	51 - 120
Tri-o-cresyl Phosphate	107		P	49 - 150
Triadimefon	95.2		P	56 - 114
Tris(1-chloro-2-propyl) phosphate (TCPP)	87.4		P	50 - 150
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	84.1		P	50 - 150
Tris(2-chloroethyl) phosphate (TCEP)	108		P	70 - 180

Reference Method: EPA 8276

Batch ID: P428300

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	76.1		P	61 - 116
Toxaphene	85.9		P	48 - 124

Reference Method: EPA 8321B

Batch ID: P428312

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	98.8		P	40 - 150
AMPA	118		P	40 - 150
Endothall	89.3		P	40 - 150
Glufosinate	98.7		P	40 - 150
Glyphosate	124		P	40 - 150
Sucralose	112		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P428314

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	70.0		P	40 - 150
Aldicarb	62.7		P	30 - 150
Aldicarb Sulfone	81.2		P	40 - 150
Aldicarb Sulfoxide	98.4		P	40 - 150
Carbaryl	86.4		P	40 - 150
Carbofuran	76.3		P	40 - 150
Methiocarb	76.1		P	40 - 150
Methomyl	85.1		P	40 - 150
Oxamyl	80.2		P	40 - 150
Propoxur	76.8		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P428433

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	98.4		P	40 - 150
2,4,5-T	84.6		P	40 - 150
Acetaminophen	69.2		P	30 - 150
Acetamiprid	79.1		P	40 - 150
Afidopyropen	58.0		P	30 - 150
Bentazon	80.6		P	30 - 150
Benzovindiflupyr	81.4		P	40 - 150
Carbamazepine	78.5		P	40 - 150
Clothianidin	82.7		P	40 - 150
Dinotefuran	88.1		P	40 - 150
Diuron	99.6		P	40 - 150
Fenuron	79.1		P	40 - 150
Fluridone	64.9		P	40 - 150
Hydrocodone	83.7		P	40 - 150
Ibuprofen	59.7		P	40 - 150
Imazapyr	87.2		P	40 - 150
Imidacloprid	82.3		P	40 - 150
Linuron	70.3		P	40 - 150
Mandestrobin	83.2		P	40 - 150
MCPP	96.8		P	40 - 150
Naproxen	66.0		P	40 - 150
Primidone	83.8		P	40 - 150
Pyraclostrobin	74.4		P	40 - 150
Silvex	100		P	40 - 150
Thiamethoxam	80.2		P	40 - 150
Tolfenpyrad	53.0		P	30 - 150
Triclopyr	95.8		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P428416

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2399727	Calcium	105	104	P/P	80 - 120
2399727	Iron	106	104	P/P	80 - 120
2399727	Magnesium	109	106	P/P	80 - 120
2399727	Potassium	107	108	P/P	80 - 120
2399727	Sodium	105	105	P/P	80 - 120
2399727	Strontium	102	101	P/P	80 - 120
2399727	Tin	101	102	P/P	80 - 120
2399727	Titanium	101	101	P/P	80 - 120
2399727	Vanadium	103	102	P/P	80 - 120
2399727	Zinc	104	104	P/P	80 - 120
2399766	Calcium	103		P	80 - 120
2399766	Iron	105		P	80 - 120
2399766	Magnesium	106		P	80 - 120
2399766	Potassium	102		P	80 - 120
2399766	Sodium	103		P	80 - 120
2399766	Strontium	100		P	80 - 120
2399766	Tin	101		P	80 - 120
2399766	Titanium	102		P	80 - 120
2399766	Vanadium	102		P	80 - 120
2399766	Zinc	103		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P428416

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2399727	Aluminum	98.7	102	P/P	80 - 120
2399727	Antimony	103	104	P/P	80 - 120
2399727	Arsenic	99.6	100	P/P	80 - 120
2399727	Barium	102	103	P/P	80 - 120
2399727	Beryllium	91.3	94.2	P/P	80 - 120
2399727	Boron	102	102	P/P	80 - 120
2399727	Cadmium	104	102	P/P	80 - 120
2399727	Chromium	98.0	98.6	P/P	80 - 120
2399727	Cobalt	101	103	P/P	80 - 120
2399727	Copper	99.5	101	P/P	80 - 120
2399727	Lead	103	104	P/P	80 - 120
2399727	Manganese	100	101	P/P	80 - 120
2399727	Molybdenum	100	100	P/P	80 - 120
2399727	Nickel	101	102	P/P	80 - 120
2399727	Selenium	96.0	97.9	P/P	80 - 120
2399727	Silver	102	103	P/P	80 - 120
2399727	Thallium	101	102	P/P	80 - 120
2399766	Aluminum	100		P	80 - 120
2399766	Antimony	104		P	80 - 120
2399766	Arsenic	102		P	80 - 120
2399766	Barium	101		P	80 - 120
2399766	Beryllium	95.3		P	80 - 120
2399766	Boron	104		P	80 - 120
2399766	Cadmium	102		P	80 - 120
2399766	Chromium	98.5		P	80 - 120
2399766	Cobalt	102		P	80 - 120
2399766	Copper	99.7		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P428416

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2399766	Lead	104		P	80 - 120
2399766	Manganese	98.0		P	80 - 120
2399766	Molybdenum	102		P	80 - 120
2399766	Nickel	101		P	80 - 120
2399766	Selenium	97.6		P	80 - 120
2399766	Silver	101		P	80 - 120
2399766	Thallium	102		P	80 - 120

Reference Method: EPA 8270E

Batch ID: P428300

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2399489	PCB-1016	73.9	70.6	P/P	46 - 111
2399489	PCB-1260	68.8	70.2	P/P	45 - 114
2399580	Aldrin	66.0	53.0	P/P	20 - 82.0
2399580	Alpha-BHC	100	107	P/P	71 - 109
2399580	Alpha-Chlordane	88.6	77.6	P/P	42 - 106
2399580	Beta-BHC	95.5	109	P/P	69 - 180
2399580	Beta-Cyfluthrin	89.1	104	P/P	18 - 175
2399580	Bifenthrin	55.4	52.1	P/P	21 - 128
2399580	Chlorothalonil	105	128	P/P	10 - 300
2399580	Cis-Nonachlor	97.2	84.8	P/P	34 - 106
2399580	Cypermethrin	76.7	72.9	P/P	22 - 158
2399580	Dacthal	100	91.2	P/P	54 - 116
2399580	DDD-p,p'	90.8	74.5	P/P	34 - 107
2399580	DDE-p,p'	86.0	77.2	P/P	33 - 110
2399580	DDT-p,p'	82.6	82.8	P/P	50 - 122
2399580	Delta-BHC	105	140	P/P	77 - 193
2399580	Deltamethrin	113	91.2	P/P	10 - 195
2399580	Dichlobenil	74.5	73.5	P/P	25 - 113
2399580	Dicofol	83.8	84.4	P/P	38 - 247
2399580	Dieldrin	74.1	68.9	P/P	45 - 118
2399580	Endosulfan I	93.2	83.5	P/P	51 - 106
2399580	Endosulfan II	106	95.3	P/P	37 - 122
2399580	Endosulfan Sulfate	76.5	99.6	P/P	43 - 132
2399580	Endrin	88.8	78.5	P/P	29 - 101
2399580	Endrin Aldehyde	62.3	56.4	P/P	19 - 110
2399580	Endrin Ketone	75.4	89.0	P/P	60 - 140
2399580	Esfenvalerate	94.8	86.9	P/P	26 - 199
2399580	Ethalfuralin	83.6	97.5	P/P	45 - 99.0
2399580	Fenpropathrin	85.3	79.5	P/P	35 - 120
2399580	Gamma-BHC	83.5	98.6	P/P	63 - 128
2399580	Gamma-Chlordane	87.8	74.2	P/P	40 - 104
2399580	Heptachlor	85.8	64.4	P/P	36 - 97.0
2399580	Heptachlor Epoxide	68.8	79.1	P/P	49 - 184
2399580	Hexachlorobenzene	81.6	49.1	P/P	39 - 96.0
2399580	Kepone	172	278	P/F	10 - 217
2399580	Lambda-Cyhalothrin	86.5	82.8	P/P	21 - 193
2399580	Methoprene	85.3	57.5	P/P	20 - 106
2399580	Methoxychlor	104	114	P/P	53 - 118
2399580	MGK-264	91.9	88.1	P/P	40 - 118
2399580	Mirex	67.7	50.6	P/P	26 - 92.0

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P428300

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2399580	Oxychlordane	86.8	80.9	P/P	44 - 99.0
2399580	Permethrin	88.2	91.2	P/P	33 - 182
2399580	Phenothrin	72.1	95.9	P/P	10 - 129
2399580	Piperonyl Butoxide	97.0	85.3	P/P	10 - 211
2399580	Prallethrin	112	105	P/P	24 - 113
2399580	Tau-Fluvalinate	96.0	102	P/P	14 - 149
2399580	Tetramethrin	93.0	80.0	P/P	17 - 151
2399580	Trans-Nonachlor	102	84.3	P/P	42 - 102
2399580	Triclosan Methyl	101	80.8	P/P	48 - 108
2399580	Trifluralin	85.6	79.7	P/P	47 - 96.0

Reference Method: EPA 8270E

Batch ID: P428317

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2399020	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	77.7	85.5	P/P	26 - 165
2399020	Acetochlor	67.1	72.7	P/P	67 - 124
2399020	Alachlor	95.6	103	P/P	60 - 120
2399020	Ametryn	153	186	P/P	54 - 216
2399020	Atrazine Desethyl	74.9	73.1	P/P	15 - 122
2399020	Avobenzone	112	118	P/P	37 - 178
2399020	Azinphos Methyl	62.2	82.2	P/P	40 - 292
2399020	Bromacil	88.4	98.6	P/P	45 - 127
2399020	Butylate	32.3	38.7	P/P	20 - 83.0
2399020	Caffeine	90.7	96.4	P/P	10 - 194
2399020	Carbophenothion	63.3	65.4	P/P	57 - 127
2399020	Carfentrazone Ethyl	97.3	126	P/P	51 - 141
2399020	Chlorfenapyr	75.7	74.3	P/P	46 - 111
2399020	Chlorpyrifos Ethyl	65.6	68.2	P/P	52 - 120
2399020	Chlorpyrifos Methyl	74.1	75.5	P/P	63 - 119
2399020	Coumaphos	69.7	75.4	P/P	10 - 228
2399020	Cyanazine	179	213	P/P	59 - 241
2399020	Cyprodinil	41.2	47.9	F/P	47 - 146
2399020	Dechlorane 602	89.6	96.7	P/P	50 - 150
2399020	Dechlorane 603	95.3	103	P/P	50 - 150
2399020	Dechlorane Plus	67.3	93.9	P/P	50 - 150
2399020	Demeton	96.6	94.2	P/P	40 - 136
2399020	Diazinon	111	106	P/P	69 - 132
2399020	Difenoconazole	60.6	72.8	P/P	57 - 258
2399020	Dimethenamid	92.8	92.5	P/P	54 - 110
2399020	Dimethomorph	105	129	P/P	28 - 210
2399020	Disulfoton	76.6	73.3	P/P	43 - 133
2399020	Dithiopyr	88.2	89.1	P/P	39 - 116
2399020	EPTC	40.2	40.0	P/P	20 - 78.0
2399020	Ethion	63.9	63.4	P/P	17 - 119
2399020	Ethoprop	87.2	78.2	P/P	66 - 120
2399020	Etridiazole	56.6	60.4	P/P	28 - 96.0
2399020	Fenamiphos	69.5	73.8	P/P	41 - 126
2399020	Fenbuconazole	98.7	94.7	P/P	42 - 169
2399020	Fluazifop-P-butyl	102	96.5	P/P	53 - 131
2399020	Flumioxazin	118	108	P/P	19 - 300
2399020	Flutolanil	81.2	84.8	P/P	41 - 127

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P428317

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2399020	Fluxapyroxad	116	151	P/P	42 - 172
2399020	Fonofos	106	108	P/P	59 - 113
2399020	Hexabromobenzene	128	132	P/P	50 - 150
2399020	Hexazinone	90.7	94.5	P/P	66 - 122
2399020	Imazalil	92.6	85.9	P/P	21 - 283
2399020	Iprodione	70.3	61.3	P/P	43 - 150
2399020	Loratadine	75.9	85.5	P/P	23 - 201
2399020	Malathion	86.3	79.3	P/P	58 - 136
2399020	Metalaxyl	120	160	F/F	55 - 120
2399020	Mevinphos	63.5	57.6	P/P	50 - 126
2399020	Molinate	73.1	68.8	P/P	42 - 93.0
2399020	Myclobutanil	88.2	85.4	P/P	55 - 125
2399020	Naled	63.4	64.8	P/P	18 - 200
2399020	Napropamide	79.1	89.0	P/P	39 - 110
2399020	Norflurazon	83.9	83.3	P/P	48 - 128
2399020	Octinoxate	91.2	96.1	P/P	21 - 159
2399020	Oxybenzone	80.7	86.9	P/P	41 - 142
2399020	Parathion Ethyl	98.6	92.6	P/P	69 - 114
2399020	Parathion Methyl	90.9	95.3	P/P	79 - 139
2399020	PBB-153	95.2	99.3	P/P	50 - 150
2399020	PBDE-47	80.0	81.5	P/P	27 - 144
2399020	PBDE-99	77.3	80.3	P/P	18 - 150
2399020	Pendimethalin	129	131	P/P	50 - 139
2399020	Pentabromotoluene	109	118	P/P	50 - 150
2399020	Phenytoin	79.0	102	P/P	10 - 146
2399020	Phorate	103	109	P/P	54 - 161
2399020	Prodiamine	61.5	91.0	P/P	30 - 161
2399020	Prometon	82.0	90.9	P/P	45 - 134
2399020	Prometryn	99.0	106	P/P	45 - 137
2399020	Pronamide	106	104	P/P	65 - 133
2399020	Propanil	87.9	114	P/P	49 - 142
2399020	Propargite	80.5	93.0	P/P	10 - 203
2399020	Propiconazole	80.2	86.4	P/P	38 - 146
2399020	Pyraflufen Ethyl	112	124	P/P	34 - 153
2399020	Pyridaben	134	173	P/P	12 - 192
2399020	Pyriproxyfen	48.5	63.9	P/P	33 - 180
2399020	Simazine	78.9	75.3	P/P	51 - 157
2399020	Stiropfos	52.5	46.3	P/P	10 - 128
2399020	Sulfentrazone	70.0	71.0	P/P	53 - 186
2399020	Tebuconazole	52.7	50.1	P/P	10 - 133
2399020	Terbufos	80.9	93.6	P/P	65 - 139
2399020	Terbutylazine	79.9	85.9	P/P	66 - 117
2399020	Tetradecachloro-m-terphenyl	143	151	P/P	70 - 200
2399020	Thiobencarb	85.4	87.4	P/P	51 - 119
2399020	Tri-o-cresyl Phosphate	106	110	P/P	31 - 144
2399020	Triadimefon	79.7	85.0	P/P	48 - 119
2399020	Tris(1-chloro-2-propyl) phosphate (TCPP)	84.4	90.8	P/P	50 - 150
2399020	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	80.4	83.0	P/P	50 - 150
2399020	Tris(2-chloroethyl) phosphate (TCEP)	104	111	P/P	70 - 180

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8276
Batch ID: P428300

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2399489	Chlordane	70.7	58.4	P/P	53 - 126
2399489	Toxaphene	73.4	66.6	P/P	56 - 211

Reference Method: EPA 8321B
Batch ID: P428312

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2399392	Acesulfame K	93.0	93.7	P/P	40 - 150
2399392	AMPA	118	117	P/P	40 - 150
2399392	Endothall	96.7	98.9	P/P	40 - 150
2399392	Glufosinate	95.9	99.4	P/P	40 - 150
2399392	Glyphosate	110	107	P/P	40 - 150
2399392	Sucralose	97.5	93.3	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P428314

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2400159	3-Hydroxycarbofuran	69.2	69.5	P/P	40 - 150
2400159	Aldicarb	44.7	44.1	P/P	30 - 150
2400159	Aldicarb Sulfone	73.8	72.2	P/P	40 - 150
2400159	Aldicarb Sulfoxide	32.3	32.4	F/F	40 - 150
2400159	Carbaryl	71.3	67.3	P/P	40 - 150
2400159	Carbofuran	51.1	50.8	P/P	40 - 150
2400159	Methiocarb	71.6	64.9	P/P	40 - 150
2400159	Methomyl	54.3	53.7	P/P	40 - 150
2400159	Oxamyl	62.7	71.9	P/P	40 - 150
2400159	Propoxur	47.6	45.9	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P428433

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2399997	2,4-D	89.5	92.4	P/P	40 - 150
2399997	2,4,5-T	103	108	P/P	40 - 150
2399997	Acetaminophen	94.4	95.1	P/P	30 - 150
2399997	Acetamiprid	49.8	44.5	P/P	40 - 150
2399997	Afidopyropen	72.9	79.0	P/P	30 - 150
2399997	Benzovindiflupyr	89.0	82.6	P/P	40 - 150
2399997	Carbamazepine	57.5	59.8	P/P	40 - 150
2399997	Clothianidin	73.2	74.9	P/P	40 - 150
2399997	Dinotefuran	49.4	49.6	P/P	40 - 150
2399997	Diuron	71.7	71.2	P/P	40 - 150
2399997	Fenuron	38.4	40.6	F/P	40 - 150
2399997	Fluridone	69.0	57.7	P/P	40 - 150
2399997	Hydrocodone	46.2	44.4	P/P	40 - 150
2399997	Ibuprofen	61.7	55.7	P/P	40 - 150
2399997	Imazapyr	71.1	68.9	P/P	40 - 150
2399997	Imidacloprid	99.4	102	P/P	40 - 150
2399997	Linuron	74.8	68.0	P/P	40 - 150
2399997	Mandestrobin	89.1	83.9	P/P	40 - 150
2399997	MCPP	104	121	P/P	40 - 150

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P428433

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2399997	Naproxen	66.7	59.6	P/P	40 - 150
2399997	Primidone	69.6	78.0	P/P	40 - 150
2399997	Pyraclostrobin	80.2	77.9	P/P	40 - 150
2399997	Silvex	114	106	P/P	40 - 150
2399997	Thiamethoxam	53.9	58.6	P/P	40 - 150
2399997	Tolfenpyrad	49.2	55.9	P/P	30 - 150
2399997	Triclopyr	123	117	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P428416

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2399727	Calcium	0.336	Spike	P	0 - 20
2399727	Iron	2.09	Spike	P	0 - 20
2399727	Magnesium	1.96	Spike	P	0 - 20
2399727	Potassium	0.0936	Spike	P	0 - 20
2399727	Sodium	0.528	Spike	P	0 - 20
2399727	Strontium	0.522	Spike	P	0 - 20
2399727	Tin	0.662	Spike	P	0 - 20
2399727	Titanium	0.0241	Spike	P	0 - 20
2399727	Vanadium	0.566	Spike	P	0 - 20
2399727	Zinc	0.0493	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P428416

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2399727	Aluminum	2.66	Spike	P	0 - 20
2399727	Antimony	0.777	Spike	P	0 - 20
2399727	Arsenic	0.522	Spike	P	0 - 20
2399727	Barium	0.419	Spike	P	0 - 20
2399727	Beryllium	2.98	Spike	P	0 - 20
2399727	Boron	0.362	Spike	P	0 - 20
2399727	Cadmium	1.11	Spike	P	0 - 20
2399727	Chromium	0.535	Spike	P	0 - 20
2399727	Cobalt	1.52	Spike	P	0 - 20
2399727	Copper	1.53	Spike	P	0 - 20
2399727	Lead	0.638	Spike	P	0 - 20
2399727	Manganese	0.380	Spike	P	0 - 20
2399727	Molybdenum	0.361	Spike	P	0 - 20
2399727	Nickel	0.996	Spike	P	0 - 20
2399727	Selenium	1.94	Spike	P	0 - 20
2399727	Silver	0.688	Spike	P	0 - 20
2399727	Thallium	1.16	Spike	P	0 - 20

Reference Method: EPA 8270E

Batch ID: P428300

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2399489	PCB-1016	4.53	Spike	P	0 - 32
2399489	PCB-1260	1.97	Spike	P	0 - 31
2399580	Aldrin	21.9	Spike	P	0 - 41
2399580	Alpha-BHC	6.43	Spike	P	0 - 25
2399580	Alpha-Chlordane	13.3	Spike	P	0 - 33
2399580	Beta-BHC	12.8	Spike	P	0 - 36
2399580	Beta-Cyfluthrin	15.6	Spike	P	0 - 42
2399580	Bifenthrin	6.20	Spike	P	0 - 53
2399580	Chlorothalonil	20.3	Spike	P	0 - 71
2399580	Cis-Nonachlor	13.6	Spike	P	0 - 29
2399580	Cypermethrin	5.08	Spike	P	0 - 40
2399580	Dacthal	9.53	Spike	P	0 - 26

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P428300

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2399580	DDD-p,p'	19.7	Spike	P	0 - 39
2399580	DDE-p,p'	10.8	Spike	P	0 - 33
2399580	DDT-p,p'	0.299	Spike	P	0 - 40
2399580	Delta-BHC	28.7	Spike	P	0 - 37
2399580	Deltamethrin	21.0	Spike	P	0 - 100
2399580	Dichlobenil	1.25	Spike	P	0 - 40
2399580	Dicofol	0.682	Spike	P	0 - 31
2399580	Dieldrin	6.23	Spike	P	0 - 27
2399580	Endosulfan I	10.9	Spike	P	0 - 23
2399580	Endosulfan II	10.4	Spike	P	0 - 28
2399580	Endosulfan Sulfate	26.3	Spike	P	0 - 38
2399580	Endrin	12.3	Spike	P	0 - 63
2399580	Endrin Aldehyde	9.93	Spike	P	0 - 60
2399580	Endrin Ketone	16.5	Spike	P	0 - 37
2399580	Esfenvalerate	8.72	Spike	P	0 - 52
2399580	Ethalfuralin	13.8	Spike	P	0 - 23
2399580	Fenpropathrin	7.07	Spike	P	0 - 32
2399580	Gamma-BHC	16.6	Spike	P	0 - 17
2399580	Gamma-Chlordane	15.4	Spike	P	0 - 40
2399580	Heptachlor	28.5	Spike	P	0 - 29
2399580	Heptachlor Epoxide	11.6	Spike	P	0 - 25
2399580	Hexachlorobenzene	49.8	Spike	F	0 - 36
2399580	Kepone	47.3	Spike	P	0 - 93
2399580	Lambda-Cyhalothrin	4.46	Spike	P	0 - 55
2399580	Methoprene	38.9	Spike	P	0 - 53
2399580	Methoxychlor	8.96	Spike	P	0 - 29
2399580	MGK-264	4.25	Spike	P	0 - 35
2399580	Mirex	28.9	Spike	P	0 - 46
2399580	Oxychlordane	7.10	Spike	P	0 - 29
2399580	Permethrin	3.44	Spike	P	0 - 44
2399580	Phenothrin	28.3	Spike	P	0 - 56
2399580	Piperonyl Butoxide	12.9	Spike	P	0 - 100
2399580	Prallethrin	6.71	Spike	P	0 - 42
2399580	Tau-Fluvalinate	5.72	Spike	P	0 - 54
2399580	Tetramethrin	15.0	Spike	P	0 - 51
2399580	Trans-Nonachlor	18.7	Spike	P	0 - 37
2399580	Triclosan Methyl	22.0	Spike	P	0 - 31
2399580	Trifluralin	7.11	Spike	P	0 - 30

Reference Method: EPA 8270E

Batch ID: P428317

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2399020	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	9.55	Spike	P	0 - 37
2399020	Acetochlor	8.01	Spike	P	0 - 28
2399020	Alachlor	7.19	Spike	P	0 - 30
2399020	Ametryn	14.8	Spike	P	0 - 32
2399020	Atrazine	9.02	Spike	P	0 - 41
2399020	Atrazine Desethyl	1.39	Spike	P	0 - 36
2399020	Avobenzene	4.53	Spike	P	0 - 36

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P428317

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2399020	Azinphos Methyl	27.7	Spike	P	0 - 75
2399020	Azoxystrobin	1.68	Spike	P	0 - 39
2399020	Bromacil	10.9	Spike	P	0 - 33
2399020	Butylate	17.8	Spike	P	0 - 44
2399020	Caffeine	4.56	Spike	P	0 - 74
2399020	Carbophenothion	3.28	Spike	P	0 - 25
2399020	Carfentrazone Ethyl	25.9	Spike	P	0 - 27
2399020	Chlorfenapyr	1.78	Spike	P	0 - 24
2399020	Chlorpyrifos Ethyl	4.00	Spike	P	0 - 26
2399020	Chlorpyrifos Methyl	1.86	Spike	P	0 - 26
2399020	Coumaphos	7.84	Spike	P	0 - 28
2399020	Cyanazine	17.2	Spike	P	0 - 48
2399020	Cyprodinil	4.09	Spike	P	0 - 29
2399020	Dechlorane 602	7.56	Spike	P	0 - 30
2399020	Dechlorane 603	7.46	Spike	P	0 - 30
2399020	Dechlorane Plus	33.0	Spike	F	0 - 30
2399020	Demeton	2.48	Spike	P	0 - 33
2399020	Diazinon	4.87	Spike	P	0 - 29
2399020	Difenoconazole	7.61	Spike	P	0 - 34
2399020	Dimethenamid	0.334	Spike	P	0 - 39
2399020	Dimethomorph	20.5	Spike	P	0 - 51
2399020	Disulfoton	4.40	Spike	P	0 - 30
2399020	Dithiopyr	0.823	Spike	P	0 - 26
2399020	EPTC	0.447	Spike	P	0 - 43
2399020	Ethion	0.718	Spike	P	0 - 79
2399020	Ethoprop	10.9	Spike	P	0 - 29
2399020	Etridiazole	6.57	Spike	P	0 - 33
2399020	Fenamiphos	5.97	Spike	P	0 - 40
2399020	Fenbuconazole	4.18	Spike	P	0 - 74
2399020	Fipronil	16.7	Spike	P	0 - 29
2399020	Fipronil Desulfinyl	4.21	Spike	P	0 - 32
2399020	Fipronil Sulfide	19.1	Spike	P	0 - 30
2399020	Fipronil Sulfone	6.70	Spike	P	0 - 33
2399020	Fluazifop-P-butyl	5.18	Spike	P	0 - 38
2399020	Fludioxonil	19.2	Spike	P	0 - 29
2399020	Flumioxazin	8.65	Spike	P	0 - 51
2399020	Flutolanil	4.41	Spike	P	0 - 25
2399020	Fluxapyroxad	26.3	Spike	P	0 - 45
2399020	Fonofos	1.86	Spike	P	0 - 27
2399020	Hexabromobenzene	3.28	Spike	P	0 - 30
2399020	Hexazinone	4.09	Spike	P	0 - 30
2399020	Imazalil	7.57	Spike	P	0 - 100
2399020	Iprodione	13.6	Spike	P	0 - 33
2399020	Loratadine	11.9	Spike	P	0 - 56
2399020	Malathion	8.41	Spike	P	0 - 37
2399020	Metalaxyl	19.0	Spike	P	0 - 40
2399020	Metolachlor	17.3	Spike	P	0 - 29
2399020	Metribuzin	8.48	Spike	P	0 - 45
2399020	Mevinphos	9.71	Spike	P	0 - 29
2399020	Molinate	6.05	Spike	P	0 - 33
2399020	Myclobutanil	3.27	Spike	P	0 - 26

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P428317

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2399020	Naled	2.18	Spike	P	0 - 37
2399020	Napropamide	10.4	Spike	P	0 - 44
2399020	Norflurazon	0.701	Spike	P	0 - 30
2399020	Octinoxate	5.23	Spike	P	0 - 45
2399020	Oxadiazon	30.2	Spike	F	0 - 28
2399020	Oxybenzone	7.44	Spike	P	0 - 46
2399020	Oxyfluorfen	14.5	Spike	P	0 - 28
2399020	Parathion Ethyl	6.25	Spike	P	0 - 31
2399020	Parathion Methyl	4.74	Spike	P	0 - 29
2399020	PBB-153	4.20	Spike	P	0 - 30
2399020	PBDE-47	1.81	Spike	P	0 - 36
2399020	PBDE-99	3.86	Spike	P	0 - 40
2399020	Pendimethalin	1.11	Spike	P	0 - 33
2399020	Pentabromotoluene	7.57	Spike	P	0 - 30
2399020	Phenytoin	25.5	Spike	P	0 - 100
2399020	Phorate	5.13	Spike	P	0 - 36
2399020	Prodiamine	35.4	Spike	P	0 - 71
2399020	Prometon	10.4	Spike	P	0 - 36
2399020	Prometryn	6.99	Spike	P	0 - 28
2399020	Pronamide	2.32	Spike	P	0 - 24
2399020	Propanil	25.7	Spike	P	0 - 28
2399020	Propargite	14.3	Spike	P	0 - 43
2399020	Propiconazole	7.38	Spike	P	0 - 33
2399020	Pyraflufen Ethyl	9.77	Spike	P	0 - 29
2399020	Pyridaben	25.6	Spike	P	0 - 30
2399020	Pyriproxyfen	27.4	Spike	P	0 - 79
2399020	Simazine	1.36	Spike	P	0 - 29
2399020	Stirophos	12.5	Spike	P	0 - 61
2399020	Sulfentrazone	1.49	Spike	P	0 - 33
2399020	Tebuconazole	5.09	Spike	P	0 - 69
2399020	Terbufos	14.5	Spike	P	0 - 29
2399020	Terbutylazine	7.13	Spike	P	0 - 32
2399020	Tetradecachloro-m-terphenyl	5.48	Spike	P	0 - 30
2399020	Thiobencarb	2.29	Spike	P	0 - 26
2399020	Tri-o-cresyl Phosphate	3.67	Spike	P	0 - 33
2399020	Triadimefon	6.41	Spike	P	0 - 28
2399020	Tris(1-chloro-2-propyl) phosphate (TCPP)	7.34	Spike	P	0 - 30
2399020	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	3.14	Spike	P	0 - 30
2399020	Tris(2-chloroethyl) phosphate (TCEP)	7.02	Spike	P	0 - 30

Reference Method: EPA 8276

Batch ID: P428300

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2399489	Chlordane	19.1	Spike	P	0 - 25
2399489	Toxaphene	9.67	Spike	P	0 - 26

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P428312

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2399392	Acesulfame K	0.734	Spike	P	0 - 30
2399392	AMPA	0.933	Spike	P	0 - 30
2399392	Endothall	2.21	Spike	P	0 - 30
2399392	Glufosinate	3.67	Spike	P	0 - 30
2399392	Glyphosate	2.04	Spike	P	0 - 30
2399392	Sucralose	3.51	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P428314

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2400159	3-Hydroxycarbofuran	0.327	Spike	P	0 - 30
2400159	Aldicarb	1.17	Spike	P	0 - 30
2400159	Aldicarb Sulfone	2.22	Spike	P	0 - 30
2400159	Aldicarb Sulfoxide	0.233	Spike	P	0 - 30
2400159	Carbaryl	5.70	Spike	P	0 - 30
2400159	Carbofuran	0.580	Spike	P	0 - 30
2400159	Methiocarb	9.83	Spike	P	0 - 30
2400159	Methomyl	1.01	Spike	P	0 - 30
2400159	Oxamyl	13.7	Spike	P	0 - 30
2400159	Propoxur	3.67	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P428433

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2399997	2,4-D	3.19	Spike	P	0 - 30
2399997	2,4,5-T	4.27	Spike	P	0 - 30
2399997	Acetaminophen	0.756	Spike	P	0 - 30
2399997	Acetamiprid	11.2	Spike	P	0 - 30
2399997	Afidopyropen	8.09	Spike	P	0 - 30
2399997	Bentazon	15.7	Spike	P	0 - 30
2399997	Benzovindiflupyr	7.52	Spike	P	0 - 30
2399997	Carbamazepine	3.77	Spike	P	0 - 30
2399997	Clothianidin	2.22	Spike	P	0 - 30
2399997	Dinotefuran	0.350	Spike	P	0 - 30
2399997	Diuron	0.710	Spike	P	0 - 30
2399997	Fenuron	5.54	Spike	P	0 - 30
2399997	Fluridone	17.7	Spike	P	0 - 30
2399997	Hydrocodone	4.08	Spike	P	0 - 30
2399997	Ibuprofen	10.2	Spike	P	0 - 30
2399997	Imazapyr	1.33	Spike	P	0 - 30
2399997	Imidacloprid	2.33	Spike	P	0 - 30
2399997	Linuron	9.50	Spike	P	0 - 30
2399997	Mandestrobin	5.91	Spike	P	0 - 30
2399997	MCP	15.0	Spike	P	0 - 30
2399997	Naproxen	11.3	Spike	P	0 - 30
2399997	Primidone	11.3	Spike	P	0 - 30
2399997	Pyraclostrobin	2.87	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8321B
Batch ID: P428433

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2399997	Silvex	6.71	Spike	P	0 - 30
2399997	Thiamethoxam	8.31	Spike	P	0 - 30
2399997	Tolfenpyrad	12.8	Spike	P	0 - 30
2399997	Triclopyr	5.12	Spike	P	0 - 30

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

Quality Assurance Report Surrogates

Lab Sample ID: 2399809
Field Sample ID: G4NW0421

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	85.3	P	30 - 160

Lab Sample ID: 2399810
Field Sample ID: G4NW0421

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	128	P	30 - 160
EPA 8321B	Acetaminophen-d4	76.0	P	30 - 160
EPA 8321B	Carbamazepine-d10	103	P	30 - 160
EPA 8321B	Diuron-d6	91.3	P	30 - 160
EPA 8321B	Endothall-d6	90.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	107	P	30 - 160
EPA 8321B	Ibuprofen-d3	85.0	P	30 - 160
EPA 8321B	Primidone-d5	94.8	P	30 - 160
EPA 8321B	Sucralose-d6	100	P	30 - 160

Lab Sample ID: 2399813
Field Sample ID: G4NW0421

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	88.2	P	29 - 130
EPA 8270E	Decachlorobiphenyl	82.7	P	30 - 118
EPA 8270E	Tetrachloro-m-xylene	65.0	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	67.1	P	30 - 97.0
EPA 8276	Decachlorobiphenyl	54.7	P	30 - 101
EPA 8276	PCNB	105	P	48 - 121

Lab Sample ID: 2399814
Field Sample ID: G4NW0421

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	104	P	20 - 200
EPA 8270E	Simazine-d10	97.4	P	62 - 142
EPA 8270E	Terbufos-d10	83.4	P	58 - 132
EPA 8270E	Terphenyl-d14	89.5	P	52 - 137

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A118594

Included Lab Sample IDs: 2399817

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	98.0	99.6	P/P	90 - 110
Antimony	102	102	P/P	90 - 110
Arsenic	98.5	98.5	P/P	90 - 110
Barium	98.6	99.9	P/P	90 - 110
Beryllium	96.4	94.3	P/P	90 - 110
Boron	96.4	98.9	P/P	90 - 110
Cadmium	99.1	99.6	P/P	90 - 110
Chromium	97.7	96.6	P/P	90 - 110
Cobalt	99.6	98.3	P/P	90 - 110
Copper	96.3	97.2	P/P	90 - 110
Lead	100	99.6	P/P	90 - 110
Manganese	97.8	96.6	P/P	90 - 110
Molybdenum	97.1	97.8	P/P	90 - 110
Nickel	97.7	97.5	P/P	90 - 110
Selenium	100	99.5	P/P	90 - 110
Silver	99.8	99.6	P/P	90 - 110
Thallium	99.5	99.6	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A118595

Included Lab Sample IDs: 2399813

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	101		P	80 - 120
Alpha-BHC	104		P	80 - 120
Alpha-Chlordane	101		P	80 - 120
Beta-BHC	102		P	80 - 120
Beta-Cyfluthrin	112		P	80 - 120
Bifenthrin	98.5		P	80 - 120
Chlorothalonil	106		P	80 - 120
Cis-Nonachlor	117		P	80 - 120
Cypermethrin	95.6		P	80 - 120
Dacthal	116		P	80 - 120
DDD-p,p'	103		P	80 - 120
DDE-p,p'	91.4		P	80 - 120
DDT-p,p'	103		P	80 - 120
Delta-BHC	103		P	80 - 120
Deltamethrin	107		P	80 - 120
Dichlobenil	118		P	80 - 120
Dicofol	105		P	80 - 120
Dieldrin	91.4		P	80 - 120
Endosulfan I	103		P	80 - 120
Endosulfan II	113		P	80 - 120
Endosulfan Sulfate	107		P	80 - 120
Endrin	107		P	80 - 120
Endrin Aldehyde	96.2		P	80 - 120
Endrin Ketone	100		P	80 - 120
Esfenvalerate	99.1		P	80 - 120
Ethalfuralin	94.4		P	80 - 120
Fenpropathrin	106		P	80 - 120
Gamma-BHC	104		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A118595
Included Lab Sample IDs: 2399813

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Gamma-Chlordane	103		P	80 - 120
Heptachlor	101		P	80 - 120
Heptachlor Epoxide	103		P	80 - 120
Hexachlorobenzene	103		P	80 - 120
Kepone	104		P	80 - 120
Lambda-Cyhalothrin	106		P	80 - 120
Methoprene	107		P	80 - 120
Methoxychlor	106		P	80 - 120
MGK-264	96.3		P	80 - 120
Mirex	106		P	80 - 120
Oxychlordane	107		P	80 - 120
Permethrin	111		P	80 - 120
Phenothrin	108		P	80 - 120
Piperonyl Butoxide	98.2		P	80 - 120
Prallethrin	105		P	80 - 120
Tau-Fluvalinate	102		P	80 - 120
Tetramethrin	91.5		P	80 - 120
Trans-Nonachlor	116		P	80 - 120
Triclosan Methyl	104		P	80 - 120
Trifluralin	83.3		P	80 - 120

Reference Method: EPA 8270E
Run ID: A118600
Included Lab Sample IDs: 2399814

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	95.9		P	80 - 120
Avobenzene	97.4		P	80 - 120
Dechlorane 602	103		P	80 - 120
Dechlorane 603	104		P	80 - 120
Dechlorane Plus	102		P	80 - 120
Hexabromobenzene	99.8		P	80 - 120
Octinoxate	93.3		P	80 - 120
Oxybenzone	94.3		P	80 - 120
PBB-153	96.7		P	80 - 120
PBDE-47	93.5		P	80 - 120
PBDE-99	95.4		P	80 - 120
Pentabromotoluene	97.5		P	80 - 120
Tetradecachloro-m-terphenyl	99.9		P	80 - 120
Tri-o-cresyl Phosphate	98.0		P	80 - 120
Tris(1-chloro-2-propyl) phosphate (TCPP)	94.8		P	80 - 120
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	94.2		P	80 - 120
Tris(2-chloroethyl) phosphate (TCEP)	98.6		P	80 - 120

Reference Method: EPA 8321B
Run ID: A118606
Included Lab Sample IDs: 2399810

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	99.5	99.0	P/P	60 - 160
Sucralose	90.3	98.6	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A118620
Included Lab Sample IDs: 2399814

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	97.3		P	80 - 120
Alachlor	89.9		P	80 - 120
Ametryn	90.8		P	80 - 120
Atrazine	104		P	80 - 120
Atrazine Desethyl	104		P	80 - 120
Azinphos Methyl	98.0		P	80 - 120
Azoxystrobin	97.1		P	80 - 120
Bromacil	104		P	80 - 120
Butylate	94.5		P	80 - 120
Carbophenothion	92.7		P	80 - 120
Carfentrazone Ethyl	86.7		P	80 - 120
Chlorfenapyr	92.3		P	80 - 120
Chlorpyrifos Ethyl	103		P	80 - 120
Chlorpyrifos Methyl	99.3		P	80 - 120
Coumaphos	80.3		P	80 - 120
Cyanazine	94.5		P	80 - 120
Cyprodinil	107		P	80 - 120
Demeton	96.1		P	80 - 120
Diazinon	105		P	80 - 120
Difenoconazole	93.1		P	80 - 120
Dimethenamid	94.5		P	80 - 120
Dimethomorph	85.5		P	80 - 120
Disulfoton	106		P	80 - 120
Dithiopyr	92.2		P	80 - 120
EPTC	91.4		P	80 - 120
Ethion	87.5		P	80 - 120
Ethoprop	98.8		P	80 - 120
Etridiazole	90.4		P	80 - 120
Fenamiphos	102		P	80 - 120
Fenbuconazole	89.8		P	80 - 120
Fipronil	101		P	80 - 120
Fipronil Desulfinyl	103		P	80 - 120
Fipronil Sulfide	102		P	80 - 120
Fipronil Sulfone	89.4		P	80 - 120
Fluazifop-P-butyl	103		P	80 - 120
Fludioxonil	104		P	80 - 120
Flumioxazin	80.2		P	80 - 120
Flutolanil	103		P	80 - 120
Fluxapyroxad	82.2		P	80 - 120
Fonofos	96.7		P	80 - 120
Hexazinone	96.7		P	80 - 120
Imazalil	97.1		P	80 - 120
Iprodione	81.7		P	80 - 120
Loratadine	93.8		P	80 - 120
Malathion	95.6		P	80 - 120
Metalaxyl	84.6		P	80 - 120
Metolachlor	99.7		P	80 - 120
Metribuzin	94.9		P	80 - 120
Mevinphos	93.9		P	80 - 120
Molinate	109		P	80 - 120
Myclobutanil	94.4		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A118620
Included Lab Sample IDs: 2399814

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Naled	97.2		P	80 - 120
Napropamide	110		P	80 - 120
Norflurazon	94.4		P	80 - 120
Oxadiazon	109		P	80 - 120
Oxyfluorfen	87.2		P	80 - 120
Parathion Ethyl	101		P	80 - 120
Parathion Methyl	102		P	80 - 120
Pendimethalin	97.5		P	80 - 120
Phenytol	95.9		P	80 - 120
Phorate	108		P	80 - 120
Prodiamine	85.9		P	80 - 120
Prometon	95.5		P	80 - 120
Prometryn	88.3		P	80 - 120
Pronamide	102		P	80 - 120
Propanil	94.2		P	80 - 120
Propargite	86.1		P	80 - 120
Propiconazole	99.7		P	80 - 120
Pyraflufen Ethyl	114		P	80 - 120
Pyridaben	81.9		P	80 - 120
Pyriproxyfen	103		P	80 - 120
Simazine	106		P	80 - 120
Stirophos	103		P	80 - 120
Sulfentrazone	84.9		P	80 - 120
Tebuconazole	95.9		P	80 - 120
Terbufos	106		P	80 - 120
Terbuthylazine	96.7		P	80 - 120
Thiobencarb	99.9		P	80 - 120
Triadimefon	83.9		P	80 - 120

Reference Method: EPA 8270E
Run ID: A118624
Included Lab Sample IDs: 2399813

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	97.6		P	80 - 120
PCB-1260	99.3		P	80 - 120

Reference Method: EPA 8321B
Run ID: A118625
Included Lab Sample IDs: 2399810

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	120	113	P/P	60 - 160
Endothall	98.5	95.7	P/P	60 - 160
Glufosinate	106	98.4	P/P	60 - 160
Glyphosate	116	113	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8276
Run ID: A118638
Included Lab Sample IDs: 2399813

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	94.7		P	80 - 120
Toxaphene	88.6		P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A118667
Included Lab Sample IDs: 2399817

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	103	103	P/P	90 - 110
Iron	105	105	P/P	90 - 110
Magnesium	105	105	P/P	90 - 110
Potassium	103	103	P/P	90 - 110
Sodium	102	102	P/P	90 - 110
Strontium	99.7	101	P/P	90 - 110
Tin	99.7	101	P/P	90 - 110
Titanium	97.6	100	P/P	90 - 110
Vanadium	99.7	100	P/P	90 - 110
Zinc	99.9	102	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A118677
Included Lab Sample IDs: 2399814

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

Reference Method: EPA 8321B
Run ID: A118768
Included Lab Sample IDs: 2399810

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	92.9	92.0	P/P	50 - 150
2,4,5-T	96.6	83.4	P/P	50 - 150
3-Hydroxycarbofuran	96.3	96.1	P/P	60 - 150
Acetaminophen	86.9	90.7	P/P	60 - 160
Acetamiprid	111	115	P/P	50 - 150
Afidopyropen	127	87.6	P/P	50 - 150
Aldicarb	85.7	106	P/P	60 - 150
Aldicarb Sulfone	97.6	94.1	P/P	50 - 150
Aldicarb Sulfoxide	104	88.9	P/P	50 - 150
Bentazon	112	102	P/P	50 - 160
Benzovindiflupyr	100	103	P/P	50 - 150
Carbamazepine	100	98.5	P/P	60 - 150
Carbaryl	120	114	P/P	60 - 150
Carbofuran	118	112	P/P	50 - 150
Clothianidin	97.7	94.4	P/P	60 - 150
Dinotefuran	93.7	98.2	P/P	50 - 150
Diuron	141	123	P/P	60 - 160
Fenuron	99.3	101	P/P	60 - 150
Fluridone	98.7	90.5	P/P	60 - 160
Hydrocodone	110	107	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A118768
Included Lab Sample IDs: 2399810

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ibuprofen	77.5	71.8	P/P	50 - 160
Imazapyr	107	106	P/P	50 - 150
Imidacloprid	102	96.8	P/P	60 - 150
Linuron	86.3	87.4	P/P	60 - 150
Mandestrobin	111	103	P/P	50 - 150
MCPP	94.8	102	P/P	50 - 150
Methiocarb	101	105	P/P	50 - 150
Methomyl	103	101	P/P	50 - 150
Naproxen	134	64.4	P/P	50 - 160
Oxamyl	93.4	96.3	P/P	50 - 150
Primidone	103	101	P/P	60 - 150
Propoxur	110	114	P/P	50 - 150
Pyraclostrobin	105	106	P/P	60 - 150
Silvex	96.4	106	P/P	50 - 150
Thiamethoxam	102	105	P/P	50 - 150
Tolfenpyrad	98.4	102	P/P	60 - 150
Triclopyr	83.3	93.2	P/P	50 - 150

* Pass/Fail determinations are made for each bracketing calibration verification check.

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			LCS	Precision SMP	MS
EPA 200.7 Rev. 4.4	Calcium	104	105	104	103			0.336
	Iron	103	106	104	105			2.09
	Magnesium	105	109	106	106			1.96
	Potassium	103	107	108	102			0.0936
	Sodium	105	105	105	103			0.528
	Strontium	101	102	101	100			0.522
	Tin	105	101	102	101			0.662
	Titanium	102	101	101	102			0.0241
	Vanadium	104	103	102	102			0.566
	Zinc	106	104	104	103			0.0493
EPA 200.8 Rev. 5.4	Aluminum	101	98.7	102	100			2.66
	Antimony	104	103	104	104			0.777
	Arsenic	101	99.6	100	102			0.522
	Barium	104	102	103	101			0.419
	Beryllium	94.7	91.3	94.2	95.3			2.98
	Boron	98.8	102	102	104			0.362
	Cadmium	102	104	102	102			1.11
	Chromium	101	98.0	98.6	98.5			0.535
	Cobalt	105	101	103	102			1.52
	Copper	103	99.5	101	99.7			1.53
	Lead	102	103	104	104			0.638
	Manganese	99.2	100	101	98.0			0.380
	Molybdenum	100	100	100	102			0.361
	Nickel	103	101	102	101			0.996
	Selenium	99.7	96.0	97.9	97.6			1.94
	Silver	103	102	103	101			0.688
	Thallium	101	101	102	102			1.16
EPA 8270E	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	95.8	77.7	85.5				9.55
	Acetochlor	92.6	67.1	72.7				8.01
	Alachlor	88.3	95.6	103				7.19
	Aldrin	57.0	66.0	53.0				21.9
	Alpha-BHC	98.2	100	107				6.43
	Alpha-Chlordane	91.4	88.6	77.6				13.3
	Ametryn	132	153	186				14.8
	Atrazine	107						9.02
	Atrazine Desethyl	107	74.9	73.1				1.39
	Avobenzone	116	112	118				4.53
	Azinphos Methyl	67.0	62.2	82.2				27.7
	Azoxystrobin	103						1.68
	Beta-BHC	85.5	95.5	109				12.8
	Beta-Cyfluthrin	81.9	89.1	104				15.6
	Bifenthrin	46.4	55.4	52.1				6.20
	Bromacil	104	88.4	98.6				10.9
	Butylate	53.4	32.3	38.7				17.8
	Caffeine	93.0	90.7	96.4				4.56
	Carbophenothion	86.5	63.3	65.4				3.28
	Carfentrazone Ethyl	119	97.3	126				25.9
	Chlorfenapyr	96.6	75.7	74.3				1.78
	Chlorothalonil	84.4	105	128				20.3
	Chlorpyrifos Ethyl	78.9	65.6	68.2				4.00
	Chlorpyrifos Methyl	77.0	74.1	75.5				1.86
	Cis-Nonachlor	88.3	97.2	84.8				13.6

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Coumaphos	79.7	69.7	75.4			7.84
	Cyanazine	190	179	213			17.2
	Cypermethrin	69.6	76.7	72.9			5.08
	Cyprodinil	96.5	41.2	47.9			4.09
	Dacthal	94.7	100	91.2			9.53
	DDD-p,p'	83.6	90.8	74.5			19.7
	DDE-p,p'	83.7	86.0	77.2			10.8
	DDT-p,p'	78.9	82.6	82.8			0.299
	Dechlorane 602	99.9	89.6	96.7			7.56
	Dechlorane 603	103	95.3	103			7.46
	Dechlorane Plus	99.4	67.3	93.9			33.0
	Delta-BHC	94.7	105	140			28.7
	Deltamethrin	90.8	113	91.2			21.0
	Demeton	67.7	96.6	94.2			2.48
	Diazinon	99.7	111	106			4.87
	Dichlobenil	100	74.5	73.5			1.25
	Dicofol	93.4	83.8	84.4			0.682
	Dieldrin	85.9	74.1	68.9			6.23
	Difenoconazole	82.0	60.6	72.8			7.61
	Dimethenamid	93.0	92.8	92.5			0.334
	Dimethomorph	90.7	105	129			20.5
	Disulfoton	71.7	73.3	76.6			4.40
	Dithiopyr	89.7	88.2	89.1			0.823
	Endosulfan I	90.2	93.2	83.5			10.9
	Endosulfan II	115	106	95.3			10.4
	Endosulfan Sulfate	88.0	76.5	99.6			26.3
	Endrin	92.3	88.8	78.5			12.3
	Endrin Aldehyde	83.5	62.3	56.4			9.93
	Endrin Ketone	91.9	75.4	89.0			16.5
	EPTC	54.8	40.0	40.2			0.447
	Esfenvalerate	76.1	94.8	86.9			8.72
	Ethalfuralin	79.2	83.6	97.5			13.8
	Ethion	75.4	63.4	63.9			0.718
	Ethoprop	71.6	78.2	87.2			10.9
	Etridiazole	64.5	60.4	56.6			6.57
	Fenamiphos	116	73.8	69.5			5.97
	Fenbuconazole	118	94.7	98.7			4.18
	Fenpropathrin	92.6	85.3	79.5			7.07
	Fipronil	104					16.7
	Fipronil Desulfinyl	83.3					4.21
	Fipronil Sulfide	86.6					19.1
	Fipronil Sulfone	96.0					6.70
	Fluazifop-P-butyl	117	96.5	102			5.18
	Fludioxonil	120					19.2
	Flumioxazin	134	108	118			8.65
	Flutolanil	85.2	84.8	81.2			4.41
	Fluxapyroxad	97.3	151	116			26.3
	Fonofos	108	106	108			1.86
	Gamma-BHC	74.5	83.5	98.6			16.6
	Gamma-Chlordane	94.6	87.8	74.2			15.4
	Heptachlor	73.5	85.8	64.4			28.5
	Heptachlor Epoxide	77.4	68.8	79.1			11.6
	Hexabromobenzene	126	128	132			3.28
	Hexachlorobenzene	70.5	81.6	49.1			49.8

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Hexazinone	97.0	94.5	90.7		4.09
	Imazalil	105	85.9	92.6		7.57
	Iprodione	87.3	70.3	61.3		13.6
	Kepone	209	172	278		47.3
	Lambda-Cyhalothrin	65.9	86.5	82.8		4.46
	Loratadine	75.5	85.5	75.9		11.9
	Malathion	100	86.3	79.3		8.41
	Metalaxyl	93.2	120	160		19.0
	Methoprene	69.8	85.3	57.5		38.9
	Methoxychlor	111	104	114		8.96
	Metolachlor	108				17.3
	Metribuzin	101				8.48
	Mevinphos	62.7	57.6	63.5		9.71
	MGK-264	76.2	91.9	88.1		4.25
	Mirex	63.2	67.7	50.6		28.9
	Molinate	72.8	68.8	73.1		6.05
	Myclobutanil	119	88.2	85.4		3.27
	Naled	60.9	64.8	63.4		2.18
	Napropamide	85.4	89.0	79.1		10.4
	Norflurazon	127	83.9	83.3		0.701
	Octinoxate	92.1	91.2	96.1		5.23
	Oxadiazon	101				30.2
	Oxybenzone	89.1	80.7	86.9		7.44
	Oxychlordane	87.2	86.8	80.9		7.10
	Oxyfluorfen	116				14.5
	Parathion Ethyl	86.2	92.6	98.6		6.25
	Parathion Methyl	105	90.9	95.3		4.74
	PBB-153	108	95.2	99.3		4.20
	PBDE-47	85.7	80.0	81.5		1.81
	PBDE-99	86.7	77.3	80.3		3.86
	PCB-1016	64.8	73.9	70.6		4.53
	PCB-1260	67.2	68.8	70.2		1.97
	Pendimethalin	106	129	131		1.11
	Pentabromotoluene	109	109	118		7.57
	Permethrin	75.6	88.2	91.2		3.44
	Phenothrin	63.2	72.1	95.9		28.3
	Phenytain	97.3	102	79.0		25.5
	Phorate	79.3	109	103		5.13
	Piperonyl Butoxide	82.9	97.0	85.3		12.9
	Prallethrin	97.9	112	105		6.71
	Prodiamine	52.4	91.0	61.5		35.4
	Prometon	87.4	82.0	90.9		10.4
	Prometryn	118	99.0	106		6.99
	Pronamide	108	106	104		2.32
	Propanil	90.2	114	87.9		25.7
	Propargite	103	93.0	80.5		14.3
	Propiconazole	93.4	86.4	80.2		7.38
	Pyraflufen Ethyl	110	124	112		9.77
	Pyridaben	136	173	134		25.6
	Pyriproxyfen	51.9	63.9	48.5		27.4
	Simazine	103	75.3	78.9		1.36
	Stirophos	86.7	46.3	52.5		12.5
	Sulfentrazone	96.2	71.0	70.0		1.49
	Tau-Fluvalinate	67.1	96.0	102		5.72

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision LCS	SMP	MS
EPA 8270E	Tebuconazole	68.6	52.7	50.1			5.09
	Terbufos	73.8	93.6	80.9			14.5
	Terbutylazine	88.6	79.9	85.9			7.13
	Tetradecachloro-m-terphenyl	143	143	151			5.48
	Tetramethrin	77.4	93.0	80.0			15.0
	Thiobencarb	114	87.4	85.4			2.29
	Trans-Nonachlor	98.7	102	84.3			18.7
	Tri-o-cresyl Phosphate	107	106	110			3.67
	Triadimefon	95.2	85.0	79.7			6.41
	Triclosan Methyl	88.7	101	80.8			22.0
	Trifluralin	83.7	85.6	79.7			7.11
	Tris(1-chloro-2-propyl) phosphate (TCPP)	87.4	84.4	90.8			7.34
	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	84.1	80.4	83.0			3.14
	Tris(2-chloroethyl) phosphate (TCEP)	108	104	111			7.02
EPA 8276	Chlordane	76.1	70.7	58.4			19.1
	Toxaphene	85.9	73.4	66.6			9.67
EPA 8321B	2,4-D	98.4	89.5	92.4			3.19
	2,4,5-T	84.6	103	108			4.27
	3-Hydroxycarbofuran	70.0	69.2	69.5			0.327
	Acesulfame K	98.8	93.0	93.7			0.734
	Acetaminophen	69.2	94.4	95.1			0.756
	Acetamiprid	79.1	49.8	44.5			11.2
	Afidopyropen	58.0	72.9	79.0			8.09
	Aldicarb	62.7	44.7	44.1			1.17
	Aldicarb Sulfone	81.2	73.8	72.2			2.22
	Aldicarb Sulfoxide	98.4	32.3	32.4			0.233
	AMPA	118	118	117			0.933
	Bentazon	80.6					15.7
	Benzovindiflupyr	81.4	89.0	82.6			7.52
	Carbamazepine	78.5	57.5	59.8			3.77
	Carbaryl	86.4	71.3	67.3			5.70
	Carbofuran	76.3	51.1	50.8			0.580
	Clothianidin	82.7	73.2	74.9			2.22
	Dinotefuran	88.1	49.4	49.6			0.350
	Diuron	99.6	71.7	71.2			0.710
	Endothall	89.3	96.7	98.9			2.21
	Fenuron	79.1	38.4	40.6			5.54
	Fluridone	64.9	69.0	57.7			17.7
	Glufosinate	98.7	95.9	99.4			3.67
	Glyphosate	124	110	107			2.04
	Hydrocodone	83.7	46.2	44.4			4.08
	Ibuprofen	59.7	61.7	55.7			10.2
	Imazapyr	87.2	71.1	68.9			1.33
	Imidacloprid	82.3	99.4	102			2.33
	Linuron	70.3	74.8	68.0			9.50
	Mandestrobin	83.2	89.1	83.9			5.91
	MCPP	96.8	104	121			15.0
	Methiocarb	76.1	71.6	64.9			9.83
	Methomyl	85.1	54.3	53.7			1.01
	Naproxen	66.0	66.7	59.6			11.3
	Oxamyl	80.2	62.7	71.9			13.7

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8321B	Primidone	83.8	69.6	78.0		11.3
	Propoxur	76.8	47.6	45.9		3.67
	Pyraclostrobin	74.4	80.2	77.9		2.87
	Silvex	100	114	106		6.71
	Sucralose	112	97.5	93.3		3.51
	Thiamethoxam	80.2	53.9	58.6		8.31
	Tolfenpyrad	53.0	49.2	55.9		12.8
	Triclopyr	95.8	123	117		5.12

Reference Method Descriptions

Method	Description	<u>Associated Samples</u>
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2399817
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2399817
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2399814
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2399813
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2399814
EPA 8270E	PCBs in water matrices by GC/MS/MS	2399813
EPA 8276	Chlordane and Toxaphene in water matrices by GC/MS with Negative Chemical Ionization	2399813
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2399809
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2399810
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2399817

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	04/12/2023	04/13/2023 11:25	George D Taylor	04/19/2023 21:55	McKinley C Carter	2399817
EPA 200.8 Rev. 5.4	04/12/2023	04/13/2023 11:25	George D Taylor	04/14/2023 18:21	Conrad Hartmann	2399817
EPA 8270E	04/12/2023	04/12/2023 11:30	Fe-Val Siddell	04/14/2023 23:03	Michael Poppell	2399813
	04/12/2023	04/12/2023 11:30	Fe-Val Siddell	04/14/2023 23:53	Julie Wi	2399813
	04/12/2023	04/13/2023 08:30	Rasheda Ghaffari	04/15/2023 01:59	Vandana T. Nagar	2399814
	04/12/2023	04/13/2023 08:30	Rasheda Ghaffari	04/16/2023 01:58	Arthur Maknenko	2399814
	04/12/2023	04/13/2023 08:30	Rasheda Ghaffari	04/18/2023 20:01	Vandana T. Nagar	2399814
EPA 8276	04/12/2023	04/12/2023 11:30	Fe-Val Siddell	04/15/2023 18:15	Lipi Saha	2399813
EPA 8321B	04/12/2023	04/14/2023 09:00	Hoor Shaik	04/18/2023 10:44	Juyoung Kim	2399810
	04/12/2023	04/14/2023 10:00	Manjita Shrestha	04/14/2023 14:07	Manjita Shrestha	2399810
	04/12/2023	04/14/2023 10:00	Manjita Shrestha	04/15/2023 07:34	Manjita Shrestha	2399810
	04/12/2023	04/14/2023 13:00	Hoor Shaik	04/17/2023 20:57	Juyoung Kim	2399809
SM 2340 B-2011	04/12/2023			04/19/2023 21:55	McKinley C Carter	2399817