

Chemical Analysis Report

NW-DIST-2022-07-27-01

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

Event Description: **NW Run**
Request ID: **RQ-2022-05-23-25**
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: Liang Lin, Environmental Administrator

Date Certified: 18-AUG-2022 15:01

A handwritten signature in black ink, appearing to read "Liang Lin", on a light-colored background.

Case Narrative

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

Results for the following analytical group are included in this report: Pesticides.

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

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

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

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

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

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

Precision is reported as relative percent difference unless otherwise noted.

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

QC Codes used in this report may include:

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

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

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

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

Sample Location: Big Escambia Creek downstream of Fannie Rd Collection Date/Time: 07/25/2022 11:05

Field ID: G4NW0421

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2344102	EPA 8321B	Aldicarb	0.020	U	ug/L	P417221	
		Aldicarb Sulfone	0.0020	U	ug/L	P417221	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P417221	
		Carbaryl	0.0020	U	ug/L	P417221	
		Carbofuran	0.0020	U	ug/L	P417221	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P417221	
		Methiocarb	0.0020	U	ug/L	P417221	
		Methomyl	0.0020	U	ug/L	P417221	
		Oxamyl	0.0020	U	ug/L	P417221	
		Propoxur	0.0020	U	ug/L	P417221	
2344103		2,4-D	0.0020	U	ug/L	P417219	
		Acesulfame K	0.10	U	ug/L	P417161	
		2,4,5-T	0.0040	U	ug/L	P417219	
		AMPA	0.10	U	ug/L	P417161	
		Acetaminophen	0.0080	U	ug/L	P417219	
		Acetamiprid	0.0020	U	ug/L	P417219	
		Endothall	0.25	U	ug/L	P417161	
		Glufosinate	0.10	U	ug/L	P417161	
		Glyphosate	0.10	U	ug/L	P417161	
		Afidopyropen	0.0020	U	ug/L	P417219	
		Bentazon	8.0E-04	U	ug/L	P417219	
		Sucralose	0.14		ug/L	P417161	
		Benzovindiflupyr	0.0020	U	ug/L	P417219	
		Carbamazepine	8.0E-04	U	ug/L	P417219	
		Clothianidin	0.0021	I	ug/L	P417219	
		Dinotefuran	0.0020	U	ug/L	P417219	
		Diuron	0.0020	I	ug/L	P417219	
		Fenuron	0.032	U	ug/L	P417219	
		Fluridone	8.0E-04	U	ug/L	P417219	
		Imazapyr	0.011	I	ug/L	P417219	
		Hydrocodone	0.0020	U	ug/L	P417219	
		Ibuprofen	0.080	U	ug/L	P417219	
		Imidacloprid	0.0099		ug/L	P417219	MS
		Linuron	0.0040	U	ug/L	P417219	
		Mandestrobin	0.0020	U	ug/L	P417219	
		MCPP	0.0040	U	ug/L	P417219	
		Naproxen	0.0080	U	ug/L	P417219	
		Primidone	0.0040	U	ug/L	P417219	
		Pyraclostrobin	0.0020	U	ug/L	P417219	
		Silvex	0.0040	U	ug/L	P417219	
		Thiamethoxam	0.0020	U	ug/L	P417219	
		Tolfenpyrad	0.0020	U	ug/L	P417219	
		Triclopyr	0.0040	U	ug/L	P417219	
2344104	EPA 8270E	Aldrin	0.75	U	ng/L	P417310	

Field ID: G4NW0421

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2344104	EPA 8270E	Alpha-BHC	0.11	U	ng/L	P417310	CCV
		Alpha-Chlordane	0.23	U	ng/L	P417310	
		PCB-1016	2.3	U	ng/L	P417310	
		Beta-BHC	0.11	U	ng/L	P417310	
		PCB-1221	2.3	U	ng/L	P417310	
		Beta-Cyfluthrin	1.4	U	ng/L	P417310	
		PCB-1232	2.3	U	ng/L	P417310	
		Bifenthrin	0.57	U	ng/L	P417310	
		PCB-1242	2.3	U	ng/L	P417310	
		PCB-1248	2.3	U	ng/L	P417310	
		Chlorothalonil	1.4	U	ng/L	P417310	
		PCB-1254	2.3	U	ng/L	P417310	
		Cis-Nonachlor	0.23	U	ng/L	P417310	
		PCB-1260	2.3	U	ng/L	P417310	
		Cypermethrin	1.7	U	ng/L	P417310	
		Dacthal	0.17	U	ng/L	P417310	
		DDD-p,p'	0.29	U	ng/L	P417310	
		DDE-p,p'	0.23	U	ng/L	P417310	
		DDT-p,p'	0.29	U	ng/L	P417310	
		Delta-BHC	0.46	U	ng/L	P417310	
		Deltamethrin	1.4	U	ng/L	P417310	
		Dichlobenil	0.29	U	ng/L	P417310	
		Dicofol	1.4	U	ng/L	P417310	
		Dieldrin	0.46	U	ng/L	P417310	
		Endosulfan I	0.46	U	ng/L	P417310	
		Endosulfan II	0.46	U	ng/L	P417310	
		Endosulfan Sulfate	0.34	U	ng/L	P417310	
		Endrin	0.46	U	ng/L	P417310	
		Endrin Aldehyde	0.86	U	ng/L	P417310	
		Endrin Ketone	0.46	U	ng/L	P417310	
		Esfenvalerate	0.86	U	ng/L	P417310	
		Ethalfuralin	0.17	U	ng/L	P417310	
		Fenpropathrin	0.29	U	ng/L	P417310	
		Gamma-BHC	0.14	U	ng/L	P417310	
		Gamma-Chlordane	0.23	U	ng/L	P417310	
		Heptachlor	0.23	U	ng/L	P417310	
		Heptachlor Epoxide	0.29	U	ng/L	P417310	
		Hexachlorobenzene**	1.1	U	ng/L	P417310	
		Kepone	5.7	UJ	ng/L	P417310	
		Lambda-Cyhalothrin	0.86	U	ng/L	P417310	
		Methoprene	0.86	U	ng/L	P417310	
		Methoxychlor	0.34	U	ng/L	P417310	
		MGK-264	0.23	U	ng/L	P417310	
		Mirex	0.40	U	ng/L	P417310	
		Oxychlordane	0.34	U	ng/L	P417310	

Field ID: G4NW0421

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2344104	EPA 8270E	Permethrin	1.8	U	ng/L	P417310	MS
		Phenothrin	1.0	U	ng/L	P417310	
		Piperonyl Butoxide	0.17	U	ng/L	P417310	
		Prallethrin	2.3	U	ng/L	P417310	
		Tau-Fluvalinate	0.29	UJ	ng/L	P417310	
		Tetramethrin	0.86	U	ng/L	P417310	
		Trans-Nonachlor	0.23	U	ng/L	P417310	
		Triclosan Methyl	0.17	U	ng/L	P417310	
		Trifluralin	0.23	U	ng/L	P417310	
		Chlordane	2.9	U	ng/L	P417310	
2344105	EPA 8276	Toxaphene	17	U	ng/L	P417310	MS
	EPA 8270E	Oxybenzone**	10	U	ng/L	P417335	
		Acetochlor	3.7		ng/L	P417335	
		Octinoxate**	21	U	ng/L	P417335	
		Alachlor	0.26	U	ng/L	P417335	
		Avobenzone**	100	U	ng/L	P417335	
		Ametryn	0.62	U	ng/L	P417335	
		Atrazine	8.8		ng/L	P417335	
		PBDE-47**	4.1	U	ng/L	P417335	
		Atrazine Desethyl	2.8	I	ng/L	P417335	
		PBDE-99**	5.2	U	ng/L	P417335	
		Azinphos Methyl	2.1	U	ng/L	P417335	
		Tri-o-cresyl Phosphate**	6.2	U	ng/L	P417335	
		Azoxystrobin	3.1		ng/L	P417335	
		Bromacil	0.52	U	ng/L	P417335	
		2-Ethylhexyl	12	U	ng/L	P417335	
		2,3,4,5-tetrabromobenzoate (EHTBB)**					
		Butylate	0.41	U	ng/L	P417335	
		Caffeine**	9.4	I	ng/L	P417335	
		Carbophenothion	0.21	U	ng/L	P417335	
		Carfentrazone Ethyl	0.10	U	ng/L	P417335	
		Chlorfenapyr	0.18	U	ng/L	P417335	
		Chlorpyrifos Ethyl	0.26	U	ng/L	P417335	
		Chlorpyrifos Methyl	0.052	U	ng/L	P417335	
		Coumaphos	0.52	U	ng/L	P417335	
		Cyanazine	3.4	U	ng/L	P417335	
		Cyprodinil	0.10	U	ng/L	P417335	
		Demeton	1.5	U	ng/L	P417335	
		Diazinon	0.13	U	ng/L	P417335	
		Difenoconazole	0.62	U	ng/L	P417335	
		Dimethenamid	0.10	I	ng/L	P417335	
		Dimethomorph	0.18	U	ng/L	P417335	
		Disulfoton	0.52	U	ng/L	P417335	
		Dithiopyr	0.18	U	ng/L	P417335	
		EPTC	1.3	U	ng/L	P417335	

Field ID: G4NW0421

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2344105	EPA 8270E	Ethion	0.15	U	ng/L	P417335	
		Ethoprop	0.10	U	ng/L	P417335	
		Etridiazole	0.15	U	ng/L	P417335	
		Fenamiphos	0.52	U	ng/L	P417335	
		Fenbuconazole	0.13	U	ng/L	P417335	
		Fipronil	0.26	U	ng/L	P417335	
		Fipronil Desulfinyll**	0.13	U	ng/L	P417335	
		Fipronil Sulfide	0.15	U	ng/L	P417335	
		Fipronil Sulfone	0.15	U	ng/L	P417335	
		Fluazifop-P-butyl	0.10	U	ng/L	P417335	
		Fludioxonil	0.13	U	ng/L	P417335	
		Flumioxazin	1.8	U	ng/L	P417335	
		Flutolanil	0.52		ng/L	P417335	
		Fluxapyroxad	0.59		ng/L	P417335	
		Fonofos	0.21	U	ng/L	P417335	
		Hexazinone	0.89	I	ng/L	P417335	
		Imazalil	0.77	U	ng/L	P417335	
		Iprodione	0.62	U	ng/L	P417335	
		Loratadine**	0.10	U	ng/L	P417335	
		Malathion	0.36	U	ng/L	P417335	
		Metalaxyl	0.77	U	ng/L	P417335	
		Metolachlor	15		ng/L	P417335	
		Metribuzin	2.6	U	ng/L	P417335	
		Mevinphos	1.1	U	ng/L	P417335	
		Molinate	0.31	U	ng/L	P417335	
		Myclobutanil	0.26	U	ng/L	P417335	
		Naled	1.5	U	ng/L	P417335	
		Napropamide	0.41	U	ng/L	P417335	
		Norflurazon	0.52	I	ng/L	P417335	
		Oxadiazon	0.31	U	ng/L	P417335	
		Oxyfluorfen	0.15	U	ng/L	P417335	
		Parathion Ethyl	0.26	UJ	ng/L	P417335	LCS
		Parathion Methyl	0.57	UJ	ng/L	P417335	LCS
		Pendimethalin	1.0	UJ	ng/L	P417335	LCS
		Phenytain**	3.6	UJ	ng/L	P417335	MS, RPD
		Phorate	0.54	U	ng/L	P417335	
		Prodiamine	0.18	U	ng/L	P417335	
		Prometon	0.93	U	ng/L	P417335	
		Prometryn	0.21	U	ng/L	P417335	
		Pronamide	0.15	UJ	ng/L	P417335	LCS
		Propanil	0.13	U	ng/L	P417335	
		Propargite	1.5	UJ	ng/L	P417335	RPD
		Propiconazole	0.52	U	ng/L	P417335	
		Pyraflufen Ethyl	0.26	U	ng/L	P417335	
		Pyridaben	0.46	U	ng/L	P417335	

Field ID: G4NW0421

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2344105	EPA 8270E	Pyriproxyfen	0.13	U	ng/L	P417335	
		Simazine	0.52	U	ng/L	P417335	
		Stirophos	0.13	U	ng/L	P417335	
		Sulfentrazone	0.52	U	ng/L	P417335	
		Tebuconazole	1.8	I	ng/L	P417335	
		Terbufos	0.10	UJ	ng/L	P417335	LCS
		Terbuthylazine	0.44	U	ng/L	P417335	
		Thiobencarb	0.62	U	ng/L	P417335	
		Triadimefon	0.26	U	ng/L	P417335	

Ref. Method and Comment:

EPA 8321B: MS accuracy for 2,4-D could not be assessed due to high concentration of parameter in the spiked sample.

EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P417310

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	1.2	U	ng/L
Chlorothalonil	1.2	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cypermethrin	1.5	U	ng/L
Cypermethrin	1.5	U	ng/L
Dacthal	0.15	U	ng/L
Dacthal	0.15	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDT-p,p'	0.25	U	ng/L
DDT-p,p'	0.25	U	ng/L
Delta-BHC	0.40	U	ng/L
Delta-BHC	0.40	U	ng/L
Deltamethrin	1.2	U	ng/L
Deltamethrin	1.2	U	ng/L
Dichlobenil	0.25	U	ng/L
Dichlobenil	0.25	U	ng/L
Dicofol	1.2	U	ng/L
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.40	U	ng/L
Endrin	0.40	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Ketone	0.40	U	ng/L
Endrin Ketone	0.40	U	ng/L
Esfenvalerate	0.75	U	ng/L
Esfenvalerate	0.75	U	ng/L
Ethalfuralin	0.15	U	ng/L
Ethalfuralin	0.15	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P417310

Component	Result	Code	Units
Fenpropathrin	0.25	U	ng/L
Fenpropathrin	0.25	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Kepone	5.0	U	ng/L
Kepone	5.0	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoxychlor	0.30	U	ng/L
Methoxychlor	0.30	U	ng/L
MGK-264	0.20	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.35	U	ng/L
Mirex	0.35	U	ng/L
Oxychlordane	0.30	U	ng/L
Oxychlordane	0.30	U	ng/L
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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P417310

Component	Result	Code	Units
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: P417335

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	0.25	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
Avobenzone	100	U	ng/L
Avobenzone	100	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azoxystrobin	0.50	U	ng/L
Azoxystrobin	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Butylate	0.40	U	ng/L
Caffeine	7.5	U	ng/L
Caffeine	7.5	U	ng/L
Carbophenothion	0.20	U	ng/L
Carbophenothion	0.20	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Chlorfenapyr	0.18	U	ng/L
Chlorfenapyr	0.18	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
Coumaphos	0.50	U	ng/L
Coumaphos	0.50	U	ng/L
Cyanazine	3.2	U	ng/L
Cyanazine	3.2	U	ng/L
Cyprodinil	0.10	U	ng/L
Cyprodinil	0.10	U	ng/L
Demeton	1.5	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P417335

Component	Result	Code	Units
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
Dimethomorph	0.18	U	ng/L
Dimethomorph	0.18	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
Etridiazole	0.15	U	ng/L
Etridiazole	0.15	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
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
Loratadine	0.10	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P417335

Component	Result	Code	Units
Loratadine	0.10	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	2.5	U	ng/L
Metribuzin	2.5	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
Napropamide	0.40	U	ng/L
Napropamide	0.40	U	ng/L
Norflurazon	0.50	U	ng/L
Norflurazon	0.50	U	ng/L
Octinoxate	20	U	ng/L
Octinoxate	20	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxybenzone	10	U	ng/L
Oxybenzone	10	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
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	1.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Phenytol	3.5	U	ng/L
Phenytol	3.5	U	ng/L
Phorate	0.52	U	ng/L
Phorate	0.52	U	ng/L
Prodiamine	0.18	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Prometryn	0.20	U	ng/L
Pronamide	0.15	U	ng/L
Pronamide	0.15	U	ng/L
Propanil	0.12	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P417335

Component	Result	Code	Units
Propanil	0.12	U	ng/L
Propargite	1.5	U	ng/L
Propargite	1.5	U	ng/L
Propiconazole	0.50	U	ng/L
Propiconazole	0.50	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyridaben	0.45	U	ng/L
Pyridaben	0.45	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
Stirophos	0.12	U	ng/L
Stirophos	0.12	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
Thiobencarb	0.60	U	ng/L
Thiobencarb	0.60	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Triadimefon	0.25	U	ng/L
Triadimefon	0.25	U	ng/L

Reference Method: EPA 8276

Batch ID: P417310

Component	Result	Code	Units
Chlordane	2.5	U	ng/L
Chlordane	2.5	U	ng/L
Toxaphene	15	U	ng/L
Toxaphene	15	U	ng/L

Reference Method: EPA 8321B

Batch ID: P417161

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P417219

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	0.0040	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Silvex	0.0040	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B

Batch ID: P417221

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P417310

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	60.2		P	10 - 92.0
Alpha-BHC	90.6		P	75 - 107
Alpha-Chlordane	82.6		P	50 - 108
Beta-BHC	103		P	36 - 138
Beta-Cyfluthrin	81.7		P	20 - 161
Bifenthrin	51.7		P	10 - 119
Chlorothalonil	83.0		P	26 - 186
Cis-Nonachlor	61.7		P	42 - 119
Cypermethrin	85.7		P	22 - 150
Dacthal	98.5		P	72 - 119
DDD-p,p'	72.7		P	45 - 107
DDE-p,p'	82.7		P	48 - 106
DDT-p,p'	74.3		P	48 - 110
Delta-BHC	109		P	54 - 140
Deltamethrin	106		P	22 - 189
Dichlobenil	92.4		P	36 - 117
Dicofol	79.0		P	46 - 155
Dieldrin	95.6		P	54 - 110
Endosulfan I	85.9		P	59 - 105
Endosulfan II	88.1		P	51 - 118
Endosulfan Sulfate	105		P	57 - 121
Endrin	90.6		P	10 - 120
Endrin Aldehyde	71.1		P	34 - 118
Endrin Ketone	92.3		P	69 - 177
Esfenvalerate	68.1		P	23 - 168
Ethalfuralin	74.6		P	49 - 99.0
Fenpropathrin	73.8		P	34 - 117
Gamma-BHC	97.5		P	72 - 117
Gamma-Chlordane	84.6		P	43 - 106
Heptachlor	81.1		P	41 - 98.0
Heptachlor Epoxide	86.3		P	57 - 106
Hexachlorobenzene	68.5		P	36 - 99.0
Kepone	27.4		P	16 - 215
Lambda-Cyhalothrin	62.6		P	21 - 177
Methoprene	50.9		P	10 - 119
Methoxychlor	93.4		P	60 - 112
MGK-264	104		P	26 - 122
Mirex	53.8		P	10 - 169
Oxychlordane	78.0		P	43 - 105
PCB-1016	89.8		P	48 - 112
PCB-1260	85.8		P	44 - 118
Permethrin	80.3		P	24 - 148
Phenothrin	72.9		P	10 - 106
Piperonyl Butoxide	124		P	10 - 139
Prallethrin	106		P	17 - 109
Tau-Fluvalinate	77.5		P	13 - 131
Tetramethrin	97.4		P	10 - 132
Trans-Nonachlor	80.3		P	44 - 106
Triclosan Methyl	84.0		P	59 - 109
Trifluralin	74.1		P	44 - 101

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P417335

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	95.2		P	50 - 150
Acetochlor	120		P	70 - 121
Alachlor	113		P	68 - 119
Ametryn	114		P	64 - 139
Atrazine	114		P	76 - 120
Atrazine Desethyl	94.7		P	44 - 126
Avobenzone	105		P	59 - 206
Azinphos Methyl	143		P	43 - 192
Azoxystrobin	152		P	36 - 224
Bromacil	97.1		P	52 - 121
Butylate	72.2		P	28 - 91.0
Caffeine	73.7		P	50 - 134
Carbophenothion	119		P	56 - 129
Carfentrazone Ethyl	129		P	60 - 141
Chlorfenapyr	109		P	56 - 115
Chlorpyrifos Ethyl	110		P	60 - 118
Chlorpyrifos Methyl	119		P	68 - 119
Coumaphos	129		P	18 - 250
Cyanazine	112		P	61 - 250
Cyprodinil	120		P	55 - 145
Demeton	111		P	30 - 159
Diazinon	123		P	70 - 123
Difenoconazole	145		P	49 - 204
Dimethenamid	101		P	64 - 115
Dimethomorph	175		P	12 - 219
Disulfoton	113		P	44 - 125
Dithiopyr	100		P	64 - 115
EPTC	60.1		P	28 - 86.0
Ethion	75.6		P	33 - 125
Ethoprop	113		P	64 - 116
Etridiazole	75.9		P	34 - 91.0
Fenamiphos	113		P	12 - 127
Fenbuconazole	117		P	59 - 151
Fipronil	118		P	67 - 129
Fipronil Desulfinyl	123		P	65 - 127
Fipronil Sulfide	102		P	61 - 116
Fipronil Sulfone	117		P	55 - 117
Fluazifop-P-butyl	124		P	62 - 127
Fludioxonil	112		P	62 - 128
Flumioxazin	173		P	33 - 250
Flutolanil	110		P	56 - 127
Fluxapyroxad	105		P	45 - 128
Fonofos	110		P	62 - 111
Hexazinone	116		P	46 - 139
Imazalil	110		P	38 - 142
Iprodione	123		P	47 - 135
Loratadine	168		P	10 - 244
Malathion	120		P	61 - 139
Metalaxyl	114		P	10 - 119
Metolachlor	111		P	65 - 118
Metribuzin	130		P	51 - 250
Mevinphos	109		P	53 - 121

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P417335

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Molinate	78.8		P	42 - 96.0
Myclobutanil	112		P	55 - 128
Naled	80.5		P	10 - 98.0
Napropamide	102		P	49 - 121
Norflurazon	109		P	61 - 126
Octinoxate	99.0		P	25 - 150
Oxadiazon	96.7		P	59 - 116
Oxybenzone	86.7		P	59 - 147
Oxyfluorfen	136		P	64 - 137
Parathion Ethyl	118		F	70 - 112
Parathion Methyl	150		F	76 - 133
PBDE-47	90.8		P	50 - 150
PBDE-99	87.6		P	50 - 150
Pendimethalin	123		F	52 - 117
Phenytoin	44.5		P	10 - 199
Phorate	111		P	48 - 121
Prodiamine	55.8		P	26 - 142
Prometon	84.6		P	43 - 123
Prometryn	109		P	66 - 127
Pronamide	129		F	75 - 121
Propanil	116		P	45 - 150
Propargite	75.2		P	42 - 208
Propiconazole	102		P	60 - 125
Pyraflufen Ethyl	111		P	70 - 138
Pyridaben	112		P	35 - 245
Pyriproxyfen	103		P	30 - 149
Simazine	120		P	72 - 125
Stirophos	84.2		P	29 - 164
Sulfentrazone	126		P	21 - 139
Tebuconazole	61.9		P	10 - 115
Terbufos	130		F	60 - 123
Terbutylazine	108		P	72 - 115
Thiobencarb	99.9		P	31 - 139
Tri-o-cresyl Phosphate	99.3		P	50 - 150
Triadimefon	103		P	65 - 116

Reference Method: EPA 8276

Batch ID: P417310

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	110		P	61 - 116
Toxaphene	114		P	48 - 124

Reference Method: EPA 8321B

Batch ID: P417161

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	80.2		P	40 - 150
AMPA	110		P	40 - 150
Endothall	96.4		P	40 - 150
Glufosinate	118		P	40 - 150
Glyphosate	105		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P417161

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	94.3		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P417219

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	99.8		P	40 - 150
2,4,5-T	74.0		P	40 - 150
Acetaminophen	95.4		P	30 - 150
Acetamiprid	95.9		P	40 - 150
Afidopyropen	74.0		P	30 - 150
Bentazon	76.5		P	30 - 150
Benzovindiflupyr	86.9		P	40 - 150
Carbamazepine	97.9		P	40 - 150
Clothianidin	94.2		P	40 - 150
Dinotefuran	97.3		P	40 - 150
Diuron	62.9		P	40 - 150
Fenuron	101		P	40 - 150
Fluridone	96.2		P	40 - 150
Hydrocodone	83.9		P	40 - 150
Ibuprofen	106		P	40 - 150
Imazapyr	105		P	40 - 150
Imidacloprid	130		P	40 - 150
Linuron	96.4		P	40 - 150
Mandestrobin	88.7		P	40 - 150
MCPP	103		P	40 - 150
Naproxen	92.3		P	40 - 150
Primidone	90.5		P	40 - 150
Pyraclostrobin	79.3		P	40 - 150
Silvex	62.8		P	40 - 150
Thiamethoxam	99.5		P	40 - 150
Tolfenpyrad	39.3		P	30 - 150
Triclopyr	82.6		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P417221

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	98.3		P	40 - 150
Aldicarb	75.3		P	30 - 150
Aldicarb Sulfone	108		P	40 - 150
Aldicarb Sulfoxide	99.3		P	40 - 150
Carbaryl	91.6		P	40 - 150
Carbofuran	77.5		P	40 - 150
Methiocarb	92.6		P	40 - 150
Methomyl	96.4		P	40 - 150
Oxamyl	90.9		P	40 - 150
Propoxur	72.6		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P417310

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2344104	Aldrin	48.8	53.7	P/P	20 - 82.0
2344104	Alpha-BHC	90.3	92.6	P/P	71 - 109
2344104	Alpha-Chlordane	60.7	70.8	P/P	42 - 106
2344104	Beta-BHC	118	118	P/P	69 - 180
2344104	Beta-Cyfluthrin	131	121	P/P	18 - 175
2344104	Bifenthrin	103	91.1	P/P	21 - 128
2344104	Chlorothalonil	126	181	P/P	10 - 300
2344104	Cis-Nonachlor	63.0	51.4	P/P	34 - 106
2344104	Cypermethrin	113	126	P/P	22 - 158
2344104	Dacthal	76.9	89.7	P/P	54 - 116
2344104	DDD-p,p'	63.5	54.6	P/P	34 - 107
2344104	DDE-p,p'	55.6	64.0	P/P	33 - 110
2344104	DDT-p,p'	66.6	67.5	P/P	50 - 122
2344104	Delta-BHC	119	128	P/P	77 - 193
2344104	Deltamethrin	148	179	P/P	10 - 195
2344104	Dichlobenil	75.2	61.7	P/P	25 - 113
2344104	Dicofol	72.7	72.0	P/P	38 - 247
2344104	Dieldrin	64.7	72.1	P/P	45 - 118
2344104	Endosulfan I	62.5	66.1	P/P	51 - 106
2344104	Endosulfan II	64.4	67.6	P/P	37 - 122
2344104	Endosulfan Sulfate	105	98.2	P/P	43 - 132
2344104	Endrin	62.4	66.9	P/P	29 - 101
2344104	Endrin Aldehyde	58.5	41.4	P/P	19 - 110
2344104	Endrin Ketone	103	84.4	P/P	60 - 140
2344104	Esfenvalerate	133	129	P/P	26 - 199
2344104	Ethalfuralin	57.6	62.0	P/P	45 - 99.0
2344104	Fenpropathrin	99.5	88.1	P/P	35 - 120
2344104	Gamma-BHC	104	104	P/P	63 - 128
2344104	Gamma-Chlordane	58.4	66.9	P/P	40 - 104
2344104	Heptachlor	61.2	68.4	P/P	36 - 97.0
2344104	Heptachlor Epoxide	62.1	63.5	P/P	49 - 184
2344104	Hexachlorobenzene	61.8	53.5	P/P	39 - 96.0
2344104	Kepone	27.4	23.5	P/P	10 - 217
2344104	Lambda-Cyhalothrin	123	110	P/P	21 - 193
2344104	Methoprene	61.8	58.3	P/P	20 - 106
2344104	Methoxychlor	81.8	82.5	P/P	53 - 118
2344104	MGK-264	84.0	94.9	P/P	40 - 118
2344104	Mirex	60.9	54.6	P/P	26 - 92.0
2344104	Oxychlordane	52.2	56.7	P/P	44 - 99.0
2344104	Permethrin	119	115	P/P	33 - 182
2344104	Phenothrin	93.1	95.6	P/P	10 - 129
2344104	Piperonyl Butoxide	167	140	P/P	10 - 211
2344104	Prallethrin	72.9	78.3	P/P	24 - 113
2344104	Tau-Fluvalinate	130	157	P/F	14 - 149
2344104	Tetramethrin	117	101	P/P	17 - 151
2344104	Trans-Nonachlor	55.3	54.8	P/P	42 - 102
2344104	Triclosan Methyl	54.9	63.8	P/P	48 - 108
2344104	Trifluralin	54.1	62.1	P/P	47 - 96.0
2344292	PCB-1016	84.4	83.5	P/P	46 - 111
2344292	PCB-1260	81.4	86.9	P/P	45 - 114

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P417335

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2344105	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	106	100	P/P	50 - 150
2344105	Acetochlor	77.1	76.0	P/P	65 - 124
2344105	Alachlor	92.8	90.7	P/P	61 - 121
2344105	Ametryn	92.3	90.0	P/P	52 - 216
2344105	Atrazine Desethyl	59.9	67.2	P/P	15 - 160
2344105	Avobenzone	93.1	96.6	P/P	59 - 206
2344105	Azinphos Methyl	118	123	P/P	40 - 292
2344105	Azoxystrobin	92.5	102	P/P	12 - 242
2344105	Bromacil	75.5	81.0	P/P	54 - 167
2344105	Butylate	57.9	61.2	P/P	14 - 94.0
2344105	Caffeine	93.3	85.8	P/P	10 - 226
2344105	Carbophenothion	97.4	95.9	P/P	49 - 122
2344105	Carfentrazone Ethyl	105	107	P/P	53 - 138
2344105	Chlorfenapyr	101	96.3	P/P	50 - 150
2344105	Chlorpyrifos Ethyl	89.2	90.2	P/P	52 - 122
2344105	Chlorpyrifos Methyl	105	101	P/P	66 - 117
2344105	Coumaphos	113	107	P/P	50 - 220
2344105	Cyanazine	88.9	87.5	P/P	43 - 245
2344105	Cyprodinil	89.5	86.4	P/P	50 - 150
2344105	Demeton	91.5	93.4	P/P	43 - 188
2344105	Diazinon	99.2	97.6	P/P	69 - 131
2344105	Difenoconazole	131	119	P/P	34 - 231
2344105	Dimethenamid	80.8	75.2	P/P	55 - 118
2344105	Dimethomorph	95.2	116	P/P	50 - 150
2344105	Disulfoton	91.7	87.0	P/P	38 - 141
2344105	Dithiopyr	82.7	86.2	P/P	42 - 116
2344105	EPTC	51.1	52.4	P/P	18 - 85.0
2344105	Ethion	103	78.3	P/P	10 - 131
2344105	Ethoprop	97.9	97.5	P/P	65 - 129
2344105	Etridiazole	59.0	57.0	P/P	50 - 150
2344105	Fenamiphos	83.3	102	P/P	31 - 137
2344105	Fenbuconazole	103	98.1	P/P	57 - 160
2344105	Fipronil	95.0	93.8	P/P	62 - 132
2344105	Fipronil Desulfinyl	102	103	P/P	57 - 131
2344105	Fipronil Sulfide	93.9	91.8	P/P	15 - 138
2344105	Fipronil Sulfone	86.4	81.6	P/P	21 - 134
2344105	Fluazifop-P-butyl	98.6	97.7	P/P	54 - 133
2344105	Fludioxonil	87.4	86.4	P/P	58 - 127
2344105	Flumioxazin	153	138	P/P	33 - 300
2344105	Flutolanil	90.1	83.6	P/P	42 - 130
2344105	Fluxapyroxad	86.1	81.5	P/P	23 - 141
2344105	Fonofos	89.2	91.8	P/P	58 - 119
2344105	Hexazinone	99.3	100	P/P	68 - 172
2344105	Imazalil	82.9	72.0	P/P	48 - 283
2344105	Iprodione	104	99.5	P/P	38 - 140
2344105	Loratadine	93.8	117	P/P	50 - 150
2344105	Malathion	100	108	P/P	40 - 137
2344105	Metalaxyl	95.3	88.5	P/P	21 - 129
2344105	Metribuzin	100	115	P/P	38 - 187
2344105	Mevinphos	98.6	100	P/P	54 - 134
2344105	Molinate	68.6	75.2	P/P	41 - 97.0
2344105	Myclobutanil	89.3	87.1	P/P	56 - 125

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P417335

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2344105	Naled	96.1	98.1	P/P	10 - 108
2344105	Napropamide	86.1	83.2	P/P	50 - 150
2344105	Norflurazon	89.8	83.2	P/P	32 - 122
2344105	Octinoxate	99.1	102	P/P	25 - 150
2344105	Oxadiazon	78.6	72.6	P/P	40 - 119
2344105	Oxybenzone	92.0	97.8	P/P	59 - 147
2344105	Oxyfluorfen	127	112	P/P	61 - 153
2344105	Parathion Ethyl	102	104	P/P	59 - 130
2344105	Parathion Methyl	129	119	P/P	65 - 155
2344105	PBDE-47	100	93.0	P/P	50 - 150
2344105	PBDE-99	99.2	90.8	P/P	50 - 150
2344105	Pendimethalin	110	104	P/P	49 - 138
2344105	Phenytoin	66.2	35.0	P/F	50 - 200
2344105	Phorate	88.3	95.3	P/P	54 - 161
2344105	Prodiamine	44.4	54.8	P/P	33 - 161
2344105	Prometon	75.8	73.2	P/P	48 - 140
2344105	Prometryn	90.5	86.6	P/P	55 - 134
2344105	Pronamide	104	96.1	P/P	66 - 137
2344105	Propanil	91.1	86.4	P/P	50 - 150
2344105	Propargite	92.1	56.0	P/P	50 - 200
2344105	Propiconazole	97.4	90.4	P/P	36 - 150
2344105	Pyraflufen Ethyl	89.4	88.2	P/P	50 - 150
2344105	Pyridaben	97.8	88.2	P/P	50 - 200
2344105	Pyriproxyfen	90.9	81.5	P/P	10 - 165
2344105	Simazine	93.2	104	P/P	57 - 145
2344105	Stirophos	97.0	74.1	P/P	50 - 150
2344105	Sulfentrazone	97.4	98.9	P/P	34 - 140
2344105	Tebuconazole	79.2	51.8	P/P	10 - 127
2344105	Terbufos	110	110	P/P	59 - 138
2344105	Terbuthylazine	94.3	98.2	P/P	68 - 119
2344105	Thiobencarb	76.6	82.6	P/P	50 - 150
2344105	Tri-o-cresyl Phosphate	95.5	95.2	P/P	50 - 150
2344105	Triadimefon	83.6	85.5	P/P	50 - 150

Reference Method: EPA 8276

Batch ID: P417310

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2344292	Chlordane	100	98.8	P/P	53 - 126
2344292	Toxaphene	110	106	P/P	56 - 211

Reference Method: EPA 8321B

Batch ID: P417161

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2343748	Acesulfame K	75.8	76.6	P/P	40 - 150
2343748	AMPA	98.4	103	P/P	40 - 150
2343748	Endothall	94.9	93.1	P/P	40 - 150
2343748	Glufosinate	98.9	102	P/P	40 - 150
2343748	Glyphosate	86.8	88.0	P/P	40 - 150
2343748	Sucralose	91.5	92.1	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P417219

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2343748	2,4,5-T	72.1	76.0	P/P	40 - 150
2343748	Acetaminophen	106	112	P/P	30 - 150
2343748	Acetamiprid	94.4	93.0	P/P	40 - 150
2343748	Afidopyropen	82.7	80.9	P/P	30 - 150
2343748	Bentazon	85.9	83.3	P/P	30 - 150
2343748	Benzovindiflupyr	96.0	101	P/P	40 - 150
2343748	Carbamazepine	108	98.7	P/P	40 - 150
2343748	Clothianidin	107	112	P/P	40 - 150
2343748	Dinotefuran	129	134	P/P	40 - 150
2343748	Diuron	83.2	84.2	P/P	40 - 150
2343748	Fenuron	96.8	94.8	P/P	40 - 150
2343748	Fluridone	90.7	93.8	P/P	40 - 150
2343748	Hydrocodone	87.5	92.3	P/P	40 - 150
2343748	Ibuprofen	90.0	112	P/P	40 - 150
2343748	Imazapyr	87.9	92.9	P/P	40 - 150
2343748	Imidacloprid	148	157	P/F	40 - 150
2343748	Linuron	101	100	P/P	40 - 150
2343748	Mandestrobin	91.0	93.3	P/P	40 - 150
2343748	MCCPP	104	106	P/P	40 - 150
2343748	Naproxen	46.2	55.4	P/P	40 - 150
2343748	Primidone	117	109	P/P	40 - 150
2343748	Pyraclostrobin	89.1	89.3	P/P	40 - 150
2343748	Silvex	80.3	75.6	P/P	40 - 150
2343748	Thiamethoxam	126	129	P/P	40 - 150
2343748	Tolfenpyrad	50.4	47.8	P/P	30 - 150
2343748	Triclopyr	86.1	88.9	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P417221

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2344102	3-Hydroxycarbofuran	105	97.8	P/P	40 - 150
2344102	Aldicarb	78.8	62.8	P/P	30 - 150
2344102	Aldicarb Sulfone	111	115	P/P	40 - 150
2344102	Aldicarb Sulfoxide	61.4	62.4	P/P	40 - 150
2344102	Carbaryl	89.8	75.5	P/P	40 - 150
2344102	Carbofuran	84.4	78.9	P/P	40 - 150
2344102	Methiocarb	104	92.9	P/P	40 - 150
2344102	Methomyl	102	89.6	P/P	40 - 150
2344102	Oxamyl	89.4	84.5	P/P	40 - 150
2344102	Propoxur	72.8	75.9	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P417310

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2344104	Aldrin	9.54	Spike	P	0 - 41
2344104	Alpha-BHC	2.61	Spike	P	0 - 25
2344104	Alpha-Chlordane	15.3	Spike	P	0 - 33
2344104	Beta-BHC	0.217	Spike	P	0 - 36
2344104	Beta-Cyfluthrin	8.22	Spike	P	0 - 42
2344104	Bifenthrin	12.6	Spike	P	0 - 53
2344104	Chlorothalonil	35.8	Spike	P	0 - 71
2344104	Cis-Nonachlor	20.1	Spike	P	0 - 29
2344104	Cypermethrin	11.1	Spike	P	0 - 40
2344104	Dacthal	15.3	Spike	P	0 - 26
2344104	DDD-p,p'	14.9	Spike	P	0 - 39
2344104	DDE-p,p'	13.9	Spike	P	0 - 33
2344104	DDT-p,p'	1.37	Spike	P	0 - 40
2344104	Delta-BHC	6.98	Spike	P	0 - 37
2344104	Deltamethrin	18.4	Spike	P	0 - 100
2344104	Dichlobenil	19.7	Spike	P	0 - 40
2344104	Dicofol	1.08	Spike	P	0 - 31
2344104	Dieldrin	10.8	Spike	P	0 - 27
2344104	Endosulfan I	5.50	Spike	P	0 - 23
2344104	Endosulfan II	4.90	Spike	P	0 - 28
2344104	Endosulfan Sulfate	6.34	Spike	P	0 - 38
2344104	Endrin	6.96	Spike	P	0 - 63
2344104	Endrin Aldehyde	34.2	Spike	P	0 - 60
2344104	Endrin Ketone	19.5	Spike	P	0 - 37
2344104	Esfenvalerate	2.95	Spike	P	0 - 52
2344104	Ethalfuralin	7.27	Spike	P	0 - 23
2344104	Fenpropathrin	12.1	Spike	P	0 - 32
2344104	Gamma-BHC	0.427	Spike	P	0 - 17
2344104	Gamma-Chlordane	13.5	Spike	P	0 - 40
2344104	Heptachlor	11.2	Spike	P	0 - 29
2344104	Heptachlor Epoxide	2.24	Spike	P	0 - 25
2344104	Hexachlorobenzene	14.3	Spike	P	0 - 36
2344104	Kepone	15.4	Spike	P	0 - 93
2344104	Lambda-Cyhalothrin	11.7	Spike	P	0 - 55
2344104	Methoprene	5.83	Spike	P	0 - 53
2344104	Methoxychlor	0.763	Spike	P	0 - 29
2344104	MGK-264	12.2	Spike	P	0 - 35
2344104	Mirex	10.9	Spike	P	0 - 46
2344104	Oxychlordane	8.16	Spike	P	0 - 29
2344104	Permethrin	3.89	Spike	P	0 - 44
2344104	Phenothrin	2.63	Spike	P	0 - 56
2344104	Piperonyl Butoxide	17.4	Spike	P	0 - 100
2344104	Prallethrin	7.07	Spike	P	0 - 42
2344104	Tau-Fluvalinate	19.1	Spike	P	0 - 54
2344104	Tetramethrin	14.6	Spike	P	0 - 51
2344104	Trans-Nonachlor	0.874	Spike	P	0 - 37
2344104	Triclosan Methyl	15.1	Spike	P	0 - 31
2344104	Trifluralin	13.8	Spike	P	0 - 30
2344292	PCB-1016	1.08	Spike	P	0 - 32
2344292	PCB-1260	6.51	Spike	P	0 - 31

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P417335

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2344105	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	5.11	Spike	P	0 - 30
2344105	Acetochlor	0.638	Spike	P	0 - 27
2344105	Alachlor	2.33	Spike	P	0 - 27
2344105	Ametryn	2.56	Spike	P	0 - 34
2344105	Atrazine	1.10	Spike	P	0 - 41
2344105	Atrazine Desethyl	9.17	Spike	P	0 - 38
2344105	Avobenzone	3.70	Spike	P	0 - 30
2344105	Azinphos Methyl	3.57	Spike	P	0 - 62
2344105	Azoxystrobin	5.45	Spike	P	0 - 32
2344105	Bromacil	7.03	Spike	P	0 - 30
2344105	Butylate	5.60	Spike	P	0 - 59
2344105	Caffeine	8.20	Spike	P	0 - 60
2344105	Carbophenothion	1.55	Spike	P	0 - 25
2344105	Carfentrazone Ethyl	2.03	Spike	P	0 - 26
2344105	Chlorfenapyr	4.46	Spike	P	0 - 30
2344105	Chlorpyrifos Ethyl	1.20	Spike	P	0 - 27
2344105	Chlorpyrifos Methyl	3.37	Spike	P	0 - 26
2344105	Coumaphos	5.35	Spike	P	0 - 30
2344105	Cyanazine	1.57	Spike	P	0 - 58
2344105	Cyprodinil	3.31	Spike	P	0 - 30
2344105	Demeton	2.01	Spike	P	0 - 25
2344105	Diazinon	1.67	Spike	P	0 - 29
2344105	Difenoconazole	9.37	Spike	P	0 - 25
2344105	Dimethenamid	6.69	Spike	P	0 - 30
2344105	Dimethomorph	20.1	Spike	P	0 - 30
2344105	Disulfoton	5.28	Spike	P	0 - 33
2344105	Dithiopyr	4.16	Spike	P	0 - 22
2344105	EPTC	2.54	Spike	P	0 - 38
2344105	Ethion	27.1	Spike	P	0 - 79
2344105	Ethoprop	0.370	Spike	P	0 - 23
2344105	Etridiazole	3.54	Spike	P	0 - 30
2344105	Fenamiphos	19.9	Spike	P	0 - 58
2344105	Fenbuconazole	4.72	Spike	P	0 - 37
2344105	Fipronil	1.37	Spike	P	0 - 33
2344105	Fipronil Desulfinyl	0.325	Spike	P	0 - 26
2344105	Fipronil Sulfide	2.33	Spike	P	0 - 37
2344105	Fipronil Sulfone	5.69	Spike	P	0 - 50
2344105	Fluazifop-P-butyl	0.919	Spike	P	0 - 24
2344105	Fludioxonil	1.23	Spike	P	0 - 26
2344105	Flumioxazin	9.75	Spike	P	0 - 37
2344105	Flutolanil	6.51	Spike	P	0 - 26
2344105	Fluxapyroxad	4.63	Spike	P	0 - 34
2344105	Fonofos	2.94	Spike	P	0 - 27
2344105	Hexazinone	1.14	Spike	P	0 - 36
2344105	Imazalil	14.1	Spike	P	0 - 65
2344105	Iprodione	4.50	Spike	P	0 - 33
2344105	Loratadine	21.8	Spike	P	0 - 30
2344105	Malathion	7.10	Spike	P	0 - 44
2344105	Metalaxyl	7.41	Spike	P	0 - 38
2344105	Metolachlor	2.17	Spike	P	0 - 36
2344105	Metribuzin	13.6	Spike	P	0 - 63

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P417335

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2344105	Mevinphos	1.60	Spike	P	0 - 26
2344105	Molinate	9.20	Spike	P	0 - 40
2344105	Myclobutanil	2.51	Spike	P	0 - 21
2344105	Naled	1.99	Spike	P	0 - 26
2344105	Napropamide	3.44	Spike	P	0 - 30
2344105	Norflurazon	7.30	Spike	P	0 - 24
2344105	Octinoxate	2.84	Spike	P	0 - 30
2344105	Oxadiazon	7.94	Spike	P	0 - 27
2344105	Oxybenzone	6.08	Spike	P	0 - 30
2344105	Oxyfluorfen	12.1	Spike	P	0 - 24
2344105	Parathion Ethyl	2.35	Spike	P	0 - 28
2344105	Parathion Methyl	8.00	Spike	P	0 - 27
2344105	PBDE-47	7.52	Spike	P	0 - 30
2344105	PBDE-99	8.75	Spike	P	0 - 30
2344105	Pendimethalin	5.62	Spike	P	0 - 31
2344105	Phenytoin	61.6	Spike	F	0 - 30
2344105	Phorate	7.58	Spike	P	0 - 27
2344105	Prodiamine	21.0	Spike	P	0 - 52
2344105	Prometon	3.56	Spike	P	0 - 31
2344105	Prometryn	4.40	Spike	P	0 - 28
2344105	Pronamide	7.61	Spike	P	0 - 26
2344105	Propanil	5.20	Spike	P	0 - 30
2344105	Propargite	48.8	Spike	F	0 - 30
2344105	Propiconazole	7.45	Spike	P	0 - 31
2344105	Pyraflufen Ethyl	1.32	Spike	P	0 - 30
2344105	Pyridaben	10.3	Spike	P	0 - 30
2344105	Pyriproxyfen	10.9	Spike	P	0 - 50
2344105	Simazine	10.5	Spike	P	0 - 29
2344105	Stirophos	26.8	Spike	P	0 - 30
2344105	Sulfentrazone	1.53	Spike	P	0 - 33
2344105	Tebuconazole	34.1	Spike	P	0 - 44
2344105	Terbufos	0.424	Spike	P	0 - 29
2344105	Terbutylazine	4.01	Spike	P	0 - 27
2344105	Thiobencarb	7.51	Spike	P	0 - 30
2344105	Tri-o-cresyl Phosphate	0.324	Spike	P	0 - 30
2344105	Triadimefon	2.22	Spike	P	0 - 30

Reference Method: EPA 8276
Batch ID: P417310

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2344292	Chlordane	1.23	Spike	P	0 - 25
2344292	Toxaphene	3.73	Spike	P	0 - 26

Reference Method: EPA 8321B
Batch ID: P417161

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2343748	Acesulfame K	1.09	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P417161

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2343748	AMPA	4.22	Spike	P	0 - 30
2343748	Endothall	1.97	Spike	P	0 - 30
2343748	Glufosinate	3.55	Spike	P	0 - 30
2343748	Glyphosate	1.33	Spike	P	0 - 30
2343748	Sucralose	0.576	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P417219

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2343748	2,4-D	5.27	Spike	P	0 - 30
2343748	2,4,5-T	5.32	Spike	P	0 - 30
2343748	Acetaminophen	4.68	Spike	P	0 - 30
2343748	Acetamiprid	1.41	Spike	P	0 - 30
2343748	Afidopyropen	2.20	Spike	P	0 - 30
2343748	Bentazon	3.14	Spike	P	0 - 30
2343748	Benzovindiflupyr	4.77	Spike	P	0 - 30
2343748	Carbamazepine	9.39	Spike	P	0 - 30
2343748	Clothianidin	5.27	Spike	P	0 - 30
2343748	Dinotefuran	3.43	Spike	P	0 - 30
2343748	Diuron	1.22	Spike	P	0 - 30
2343748	Fenuron	2.08	Spike	P	0 - 30
2343748	Fluridone	3.44	Spike	P	0 - 30
2343748	Hydrocodone	5.31	Spike	P	0 - 30
2343748	Ibuprofen	22.0	Spike	P	0 - 30
2343748	Imazapyr	5.48	Spike	P	0 - 30
2343748	Imidacloprid	5.71	Spike	P	0 - 30
2343748	Linuron	0.611	Spike	P	0 - 30
2343748	Mandestrobin	2.44	Spike	P	0 - 30
2343748	MCPP	2.73	Spike	P	0 - 30
2343748	Naproxen	18.2	Spike	P	0 - 30
2343748	Primidone	6.28	Spike	P	0 - 30
2343748	Pyraclostrobin	0.241	Spike	P	0 - 30
2343748	Silvex	6.04	Spike	P	0 - 30
2343748	Thiamethoxam	2.14	Spike	P	0 - 30
2343748	Tolfenpyrad	5.23	Spike	P	0 - 30
2343748	Triclopyr	3.16	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P417221

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2344102	3-Hydroxycarbofuran	7.43	Spike	P	0 - 30
2344102	Aldicarb	22.5	Spike	P	0 - 30
2344102	Aldicarb Sulfone	2.86	Spike	P	0 - 30
2344102	Aldicarb Sulfoxide	1.50	Spike	P	0 - 30
2344102	Carbaryl	17.3	Spike	P	0 - 30
2344102	Carbofuran	6.80	Spike	P	0 - 30
2344102	Methiocarb	11.3	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P417221

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2344102	Methomyl	13.1	Spike	P	0 - 30
2344102	Oxamyl	5.67	Spike	P	0 - 30
2344102	Propoxur	4.27	Spike	P	0 - 30

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

Quality Assurance Report Surrogates

Lab Sample ID: 2344102
Field Sample ID: G4NW0421

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	82.1	P	30 - 160

Lab Sample ID: 2344103
Field Sample ID: G4NW0421

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	88.3	P	30 - 160
EPA 8321B	Acetaminophen-d4	99.4	P	30 - 160
EPA 8321B	Carbamazepine-d10	107	P	30 - 160
EPA 8321B	Diuron-d6	87.5	P	30 - 160
EPA 8321B	Endothall-d6	103	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	82.2	P	30 - 160
EPA 8321B	Ibuprofen-d3	71.1	P	30 - 160
EPA 8321B	Primidone-d5	111	P	30 - 160
EPA 8321B	Sucralose-d6	94.1	P	30 - 160

Lab Sample ID: 2344104
Field Sample ID: G4NW0421

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	66.5	P	29 - 130
EPA 8270E	Decachlorobiphenyl	61.5	P	30 - 118
EPA 8270E	Tetrachloro-m-xylene	65.1	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	56.3	P	30 - 97.0
EPA 8276	Decachlorobiphenyl	76.2	P	30 - 101
EPA 8276	PCNB	82.6	P	48 - 121

Lab Sample ID: 2344105
Field Sample ID: G4NW0421

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	72.8	P	20 - 200
EPA 8270E	Simazine-d10	110	P	71 - 140
EPA 8270E	Terbufos-d10	94.6	P	62 - 131
EPA 8270E	Terphenyl-d14	94.2	P	52 - 141

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A113733
Included Lab Sample IDs: 2344103

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	87.9	94.6	P/P	50 - 150
2,4,5-T	113	100	P/P	50 - 150
Acetaminophen	105	106	P/P	60 - 160
Acetamiprid	107	105	P/P	50 - 150
Afidopyropen	98.2	102	P/P	50 - 150
Bentazon	107	101	P/P	50 - 160
Benzovindiflupyr	102	105	P/P	50 - 150
Carbamazepine	112	106	P/P	60 - 150
Clothianidin	110	107	P/P	60 - 150
Dinotefuran	107	111	P/P	50 - 150
Diuron	99.3	107	P/P	60 - 160
Fenuron	103	105	P/P	60 - 150
Fluridone	115	111	P/P	60 - 160
Hydrocodone	99.4	107	P/P	60 - 150
Ibuprofen	124	72.2	P/P	50 - 160
Imazapyr	93.0	89.4	P/P	50 - 150
Imidacloprid	108	104	P/P	60 - 150
Linuron	87.2	92.1	P/P	60 - 150
Mandestrobin	107	107	P/P	50 - 150
MCPP	100	103	P/P	50 - 150
Naproxen	70.3	95.6	P/P	50 - 160
Primidone	97.6	97.5	P/P	60 - 150
Pyraclostrobin	103	104	P/P	60 - 150
Silvex	88.4	92.2	P/P	50 - 150
Thiamethoxam	104	103	P/P	50 - 150
Tolfenpyrad	103	101	P/P	60 - 150
Triclopyr	107	102	P/P	50 - 150

Reference Method: EPA 8321B
Run ID: A113754
Included Lab Sample IDs: 2344103

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	77.8	74.1	P/P	60 - 160
Sucralose	94.5	94.9	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A113755
Included Lab Sample IDs: 2344103

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	111	110	P/P	60 - 160
Endothall	94.1	86.5	P/P	60 - 160
Glufosinate	90.7	94.5	P/P	60 - 160
Glyphosate	97.3	94.3	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A113874
Included Lab Sample IDs: 2344102

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
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Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A113874
Included Lab Sample IDs: 2344102

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	105	88.1	P/P	60 - 150
Aldicarb	113	87.9	P/P	60 - 150
Aldicarb Sulfone	108	91.1	P/P	50 - 150
Aldicarb Sulfoxide	103	97.4	P/P	50 - 150
Carbaryl	98.9	103	P/P	60 - 150
Carbofuran	97.9	93.9	P/P	50 - 150
Methiocarb	94.3	94.4	P/P	50 - 150
Methomyl	105	102	P/P	50 - 150
Oxamyl	100	90.0	P/P	50 - 150
Propoxur	101	98.5	P/P	50 - 150

Reference Method: EPA 8270E
Run ID: A113878
Included Lab Sample IDs: 2344104

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	97.7		P	80 - 120
Alpha-BHC	96.0		P	80 - 120
Alpha-Chlordane	98.5		P	80 - 120
Beta-BHC	101		P	80 - 120
Beta-Cyfluthrin	97.1		P	80 - 120
Bifenthrin	103		P	80 - 120
Chlorothalonil	104		P	80 - 120
Cis-Nonachlor	105		P	80 - 120
Cypermethrin	81.1		P	80 - 120
Dacthal	97.8		P	80 - 120
DDD-p,p'	113		P	80 - 120
DDE-p,p'	94.6		P	80 - 120
DDT-p,p'	102		P	80 - 120
Delta-BHC	100		P	80 - 120
Deltamethrin	87.0		P	80 - 120
Dichlobenil	98.6		P	80 - 120
Dicofol	100		P	80 - 120
Dieldrin	98.7		P	80 - 120
Endosulfan I	90.4		P	80 - 120
Endosulfan II	93.1		P	80 - 120
Endosulfan Sulfate	94.0		P	80 - 120
Endrin	96.5		P	80 - 120
Endrin Aldehyde	88.2		P	80 - 120
Endrin Ketone	106		P	80 - 120
Esfenvalerate	97.1		P	80 - 120
Ethalfuralin	100		P	80 - 120
Fenpropathrin	114		P	80 - 120
Gamma-BHC	102		P	80 - 120
Gamma-Chlordane	89.8		P	80 - 120
Heptachlor	95.1		P	80 - 120
Heptachlor Epoxide	93.3		P	80 - 120
Hexachlorobenzene	98.0		P	80 - 120
Kepone	75.9*		F	80 - 120
Lambda-Cyhalothrin	104		P	80 - 120
Methoprene	96.8		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A113878
Included Lab Sample IDs: 2344104

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Methoxychlor	100		P	80 - 120
MGK-264	98.4		P	80 - 120
Mirex	104		P	80 - 120
Oxychlordane	85.9		P	80 - 120
Permethrin	106		P	80 - 120
Phenothrin	97.1		P	80 - 120
Piperonyl Butoxide	96.4		P	80 - 120
Prallethrin	106		P	80 - 120
Tau-Fluvalinate	86.0		P	80 - 120
Tetramethrin	98.9		P	80 - 120
Trans-Nonachlor	85.8		P	80 - 120
Triclosan Methyl	84.7		P	80 - 120
Trifluralin	99.3		P	80 - 120

Reference Method: EPA 8270E
Run ID: A113904
Included Lab Sample IDs: 2344104

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	98.0		P	80 - 120
PCB-1260	96.9		P	80 - 120

Reference Method: EPA 8276
Run ID: A113908
Included Lab Sample IDs: 2344104

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	103		P	80 - 120
Toxaphene	108		P	80 - 120

Reference Method: EPA 8270E
Run ID: A113983
Included Lab Sample IDs: 2344105

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	95.6		P	80 - 120
Avobenzene	97.4		P	80 - 120
Octinoxate	95.8		P	80 - 120
Oxybenzone	91.2		P	80 - 120
PBDE-47	96.2		P	80 - 120
PBDE-99	98.7		P	80 - 120
Tri-o-cresyl Phosphate	96.9		P	80 - 120

Reference Method: EPA 8270E
Run ID: A114019
Included Lab Sample IDs: 2344105

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	95.3		P	80 - 120
Alachlor	97.5		P	80 - 120
Ametryn	102		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A114019
Included Lab Sample IDs: 2344105

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Atrazine	95.1		P	80 - 120
Atrazine Desethyl	99.4		P	80 - 120
Azinphos Methyl	95.6		P	80 - 120
Azoxystrobin	98.6		P	80 - 120
Bromacil	96.8		P	80 - 120
Butylate	105		P	80 - 120
Caffeine	95.9		P	80 - 120
Carbophenothion	99.6		P	80 - 120
Carfentrazone Ethyl	99.0		P	80 - 120
Chlorfenapyr	102		P	80 - 120
Chlorpyrifos Ethyl	98.2		P	80 - 120
Chlorpyrifos Methyl	103		P	80 - 120
Coumaphos	99.2		P	80 - 120
Cyanazine	94.7		P	80 - 120
Cyprodinil	100		P	80 - 120
Demeton	101		P	80 - 120
Diazinon	98.6		P	80 - 120
Difenoconazole	101		P	80 - 120
Dimethenamid	96.7		P	80 - 120
Dimethomorph	101		P	80 - 120
Disulfoton	94.8		P	80 - 120
Dithiopyr	96.5		P	80 - 120
EPTC	99.6		P	80 - 120
Ethion	101		P	80 - 120
Ethoprop	98.8		P	80 - 120
Etridiazole	98.3		P	80 - 120
Fenamiphos	102		P	80 - 120
Fenbuconazole	99.5		P	80 - 120
Fipronil	99.1		P	80 - 120
Fipronil Desulfinyl	97.4		P	80 - 120
Fipronil Sulfide	99.9		P	80 - 120
Fipronil Sulfone	103		P	80 - 120
Fluazifop-P-butyl	100		P	80 - 120
Fludioxonil	90.4		P	80 - 120
Flumioxazin	103		P	80 - 120
Flutolanil	99.9		P	80 - 120
Fluxapyroxad	96.5		P	80 - 120
Fonofos	98.9		P	80 - 120
Hexazinone	94.9		P	80 - 120
Imazalil	99.9		P	80 - 120
Iprodione	98.2		P	80 - 120
Loratadine	105		P	80 - 120
Malathion	98.0		P	80 - 120
Metalaxyl	95.4		P	80 - 120
Metolachlor	99.2		P	80 - 120
Metribuzin	106		P	80 - 120
Mevinphos	100		P	80 - 120
Molinate	102		P	80 - 120
Myclobutanil	97.0		P	80 - 120
Naled	102		P	80 - 120
Napropamide	98.7		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A114019
Included Lab Sample IDs: 2344105

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Norflurazon	99.7		P	80 - 120
Oxadiazon	96.2		P	80 - 120
Oxyfluorfen	95.4		P	80 - 120
Parathion Ethyl	103		P	80 - 120
Parathion Methyl	99.2		P	80 - 120
Pendimethalin	98.6		P	80 - 120
Phenytoin	93.9		P	80 - 120
Phorate	99.4		P	80 - 120
Prodiamine	101		P	80 - 120
Prometon	96.6		P	80 - 120
Prometryn	103		P	80 - 120
Pronamide	89.9		P	80 - 120
Propanil	97.4		P	80 - 120
Propargite	96.3		P	80 - 120
Propiconazole	101		P	80 - 120
Pyraflufen Ethyl	105		P	80 - 120
Pyridaben	97.2		P	80 - 120
Pyriproxyfen	95.3		P	80 - 120
Simazine	97.4		P	80 - 120
Stirophos	107		P	80 - 120
Sulfentrazone	97.4		P	80 - 120
Tebuconazole	95.6		P	80 - 120
Terbufos	96.8		P	80 - 120
Terbuthylazine	99.9		P	80 - 120
Thiobencarb	96.8		P	80 - 120
Triadimefon	98.4		P	80 - 120

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

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery	LCS	Precision SMP	MS
EPA 8270E	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	95.2	106 100			5.11
	Acetochlor	120	77.1 76.0			0.638
	Alachlor	113	92.8 90.7			2.33
	Aldrin	60.2	53.7 48.8			9.54
	Alpha-BHC	90.6	92.6 90.3			2.61
	Alpha-Chlordane	82.6	70.8 60.7			15.3
	Ametryn	114	92.3 90.0			2.56
	Atrazine	114				1.10
	Atrazine Desethyl	94.7	59.9 67.2			9.17
	Avobenzene	105	93.1 96.6			3.70
	Azinphos Methyl	143	118 123			3.57
	Azoxystrobin	152	92.5 102			5.45
	Beta-BHC	103	118 118			0.217
	Beta-Cyfluthrin	81.7	121 131			8.22
	Bifenthrin	51.7	91.1 103			12.6
	Bromacil	97.1	75.5 81.0			7.03
	Butylate	72.2	57.9 61.2			5.60
	Caffeine	73.7	93.3 85.8			8.20
	Carbophenothion	119	97.4 95.9			1.55
	Carfentrazone Ethyl	129	105 107			2.03
	Chlorfenapyr	109	101 96.3			4.46
	Chlorothalonil	83.0	181 126			35.8
	Chlorpyrifos Ethyl	110	89.2 90.2			1.20
	Chlorpyrifos Methyl	119	105 101			3.37
	Cis-Nonachlor	61.7	51.4 63.0			20.1
	Coumaphos	129	113 107			5.35
	Cyanazine	112	88.9 87.5			1.57
	Cypermethrin	85.7	126 113			11.1
	Cyprodinil	120	89.5 86.4			3.31
	Dacthal	98.5	89.7 76.9			15.3
	DDD-p,p'	72.7	54.6 63.5			14.9
	DDE-p,p'	82.7	64.0 55.6			13.9
	DDT-p,p'	74.3	67.5 66.6			1.37
	Delta-BHC	109	128 119			6.98
	Deltamethrin	106	179 148			18.4
	Demeton	111	91.5 93.4			2.01
	Diazinon	123	99.2 97.6			1.67
	Dichlobenil	92.4	61.7 75.2			19.7
	Dicofol	79.0	72.0 72.7			1.08
	Dieldrin	95.6	72.1 64.7			10.8
	Difenoconazole	145	131 119			9.37
	Dimethenamid	101	80.8 75.2			6.69
	Dimethomorph	175	95.2 116			20.1
	Disulfoton	113	91.7 87.0			5.28
	Dithiopyr	100	82.7 86.2			4.16
	Endosulfan I	85.9	66.1 62.5			5.50
	Endosulfan II	88.1	67.6 64.4			4.90
	Endosulfan Sulfate	105	98.2 105			6.34
	Endrin	90.6	66.9 62.4			6.96
	Endrin Aldehyde	71.1	41.4 58.5			34.2
	Endrin Ketone	92.3	84.4 103			19.5
	EPTC	60.1	51.1 52.4			2.54

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Esfenvalerate	68.1	129	133			2.95
	Ethalfuralin	74.6	62.0	57.6			7.27
	Ethion	75.6	103	78.3			27.1
	Ethoprop	113	97.9	97.5			0.370
	Etridiazole	75.9	59.0	57.0			3.54
	Fenamiphos	113	83.3	102			19.9
	Fenbuconazole	117	103	98.1			4.72
	Fenpropathrin	73.8	88.1	99.5			12.1
	Fipronil	118	95.0	93.8			1.37
	Fipronil Desulfinyl	123	102	103			0.325
	Fipronil Sulfide	102	93.9	91.8			2.33
	Fipronil Sulfone	117	86.4	81.6			5.69
	Fluazifop-P-butyl	124	98.6	97.7			0.919
	Fludioxonil	112	87.4	86.4			1.23
	Flumioxazin	173	153	138			9.75
	Flutolanil	110	90.1	83.6			6.51
	Fluxapyroxad	105	86.1	81.5			4.63
	Fonofos	110	89.2	91.8			2.94
	Gamma-BHC	97.5	104	104			0.427
	Gamma-Chlordane	84.6	66.9	58.4			13.5
	Heptachlor	81.1	68.4	61.2			11.2
	Heptachlor Epoxide	86.3	63.5	62.1			2.24
	Hexachlorobenzene	68.5	53.5	61.8			14.3
	Hexazinone	116	99.3	100			1.14
	Imazalil	110	82.9	72.0			14.1
	Iprodione	123	104	99.5			4.50
	Kepone	27.4	23.5	27.4			15.4
	Lambda-Cyhalothrin	62.6	110	123			11.7
	Loratadine	168	93.8	117			21.8
	Malathion	120	100	108			7.10
	Metalaxyl	114	95.3	88.5			7.41
	Methoprene	50.9	58.3	61.8			5.83
	Methoxychlor	93.4	82.5	81.8			0.763
	Metolachlor	111					2.17
	Metribuzin	130	100	115			13.6
	Mevinphos	109	98.6	100			1.60
	MGK-264	104	94.9	84.0			12.2
	Mirex	53.8	54.6	60.9			10.9
	Molinate	78.8	68.6	75.2			9.20
	Myclobutanil	112	89.3	87.1			2.51
	Naled	80.5	96.1	98.1			1.99
	Napropamide	102	86.1	83.2			3.44
	Norflurazon	109	89.8	83.2			7.30
	Octinoxate	99.0	99.1	102			2.84
	Oxadiazon	96.7	78.6	72.6			7.94
	Oxybenzone	86.7	92.0	97.8			6.08
	Oxychlordane	78.0	56.7	52.2			8.16
	Oxyfluorfen	136	127	112			12.1
	Parathion Ethyl	118	102	104			2.35
	Parathion Methyl	150	129	119			8.00
	PBDE-47	90.8	100	93.0			7.52
	PBDE-99	87.6	99.2	90.8			8.75
	PCB-1016	89.8	84.4	83.5			1.08
	PCB-1260	85.8	81.4	86.9			6.51

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision LCS	SMP	MS
EPA 8270E	Pendimethalin	123	110	104			5.62
	Permethrin	80.3	115	119			3.89
	Phenothrin	72.9	95.6	93.1			2.63
	Phenytol	44.5	66.2	35.0			61.6
	Phorate	111	88.3	95.3			7.58
	Piperonyl Butoxide	124	167	140			17.4
	Prallethrin	106	72.9	78.3			7.07
	Prodiamine	55.8	44.4	54.8			21.0
	Prometon	84.6	75.8	73.2			3.56
	Prometryn	109	90.5	86.6			4.40
	Pronamide	129	104	96.1			7.61
	Propanil	116	91.1	86.4			5.20
	Propargite	75.2	92.1	56.0			48.8
	Propiconazole	102	97.4	90.4			7.45
	Pyraflufen Ethyl	111	89.4	88.2			1.32
	Pyridaben	112	97.8	88.2			10.3
	Pyriproxyfen	103	90.9	81.5			10.9
	Simazine	120	93.2	104			10.5
	Stirophos	84.2	97.0	74.1			26.8
	Sulfentrazone	126	97.4	98.9			1.53
	Tau-Fluvalinate	77.5	130	157			19.1
	Tebuconazole	61.9	79.2	51.8			34.1
	Terbufos	130	110	110			0.424
	Terbutylazine	108	94.3	98.2			4.01
	Tetramethrin	97.4	117	101			14.6
	Thiobencarb	99.9	76.6	82.6			7.51
	Trans-Nonachlor	80.3	55.3	54.8			0.874
	Tri-o-cresyl Phosphate	99.3	95.5	95.2			0.324
	Triadimefon	103	83.6	85.5			2.22
	Triclosan Methyl	84.0	54.9	63.8			15.1
	Trifluralin	74.1	54.1	62.1			13.8
EPA 8276	Chlordane	110	100	98.8			1.23
	Toxaphene	114	110	106			3.73
EPA 8321B	2,4-D	99.8					5.27
	2,4,5-T	74.0	72.1	76.0			5.32
	3-Hydroxycarbofuran	98.3	105	97.8			7.43
	Acesulfame K	80.2	75.8	76.6			1.09
	Acetaminophen	95.4	106	112			4.68
	Acetamiprid	95.9	94.4	93.0			1.41
	Afidopyropen	74.0	82.7	80.9			2.20
	Aldicarb	75.3	78.8	62.8			22.5
	Aldicarb Sulfone	108	111	115			2.86
	Aldicarb Sulfoxide	99.3	61.4	62.4			1.50
	AMPA	110	98.4	103			4.22
	Bentazon	76.5	85.9	83.3			3.14
	Benzovindiflupyr	86.9	96.0	101			4.77
	Carbamazepine	97.9	108	98.7			9.39
	Carbaryl	91.6	89.8	75.5			17.3
	Carbofuran	77.5	84.4	78.9			6.80
	Clothianidin	94.2	107	112			5.27
	Dinotefuran	97.3	129	134			3.43
	Diuron	62.9	83.2	84.2			1.22
	Endothall	96.4	94.9	93.1			1.97
	Fenuron	101	96.8	94.8			2.08

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision LCS	SMP	MS
EPA 8321B	Fluridone	96.2	90.7	93.8			3.44
	Glufosinate	118	98.9	102			3.55
	Glyphosate	105	86.8	88.0			1.33
	Hydrocodone	83.9	87.5	92.3			5.31
	Ibuprofen	106	90.0	112			22.0
	Imazapyr	105	87.9	92.9			5.48
	Imidacloprid	130	148	157			5.71
	Linuron	96.4	101	100			0.611
	Mandestrobin	88.7	91.0	93.3			2.44
	MCPP	103	104	106			2.73
	Methiocarb	92.6	104	92.9			11.3
	Methomyl	96.4	102	89.6			13.1
	Naproxen	92.3	46.2	55.4			18.2
	Oxamyl	90.9	89.4	84.5			5.67
	Primidone	90.5	117	109			6.28
	Propoxur	72.6	72.8	75.9			4.27
	Pyraclostrobin	79.3	89.1	89.3			0.241
	Silvex	62.8	80.3	75.6			6.04
	Sucralose	94.3	91.5	92.1			0.576
	Thiamethoxam	99.5	126	129			2.14
	Tolfenpyrad	39.3	50.4	47.8			5.23
	Triclopyr	82.6	86.1	88.9			3.16

Reference Method Descriptions

Method	Description	Associated Samples
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2344105
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2344104
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2344105
EPA 8270E	PCBs in water matrices by GC/MS/MS	2344104
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2344104
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2344102
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2344103

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8270E	07/27/2022	07/29/2022 08:30	Rasheda Ghaffari	08/02/2022 17:20	Vandana T. Nagar	2344104
	07/27/2022	07/29/2022 08:30	Rasheda Ghaffari	08/03/2022 02:17	Julie Wi	2344104
	07/27/2022	08/01/2022 08:30	Rasheda Ghaffari	08/05/2022 14:26	Lipi Saha	2344105
	07/27/2022	08/01/2022 08:30	Rasheda Ghaffari	08/08/2022 21:08	Michael Poppell	2344105
EPA 8276	07/27/2022	07/29/2022 08:30	Rasheda Ghaffari	08/04/2022 12:18	Arthur Maknenko	2344104
EPA 8321B	07/27/2022	07/27/2022 12:00	Umesh Chiluwal	07/27/2022 14:43	Umesh Chiluwal	2344103
	07/27/2022	07/27/2022 12:00	Umesh Chiluwal	07/27/2022 20:43	Umesh Chiluwal	2344103
	07/27/2022	07/28/2022 09:00	June Rhew	07/28/2022 21:39	Juyoung Kim	2344103
	07/27/2022	08/01/2022 09:00	June Rhew	08/02/2022 21:52	Juyoung Kim	2344102