Chemical Analysis Report

SO-DIST-2022-08-04-01

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

Event Description: **2021 SMP : Collier County**
Request ID: **RQ-2022-06-13-50**
Customer: **SO-DIST**
Project ID: **SMP**

Send Reports to:
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FLDEP South District Office
2295 Victoria Ave. Suite 364
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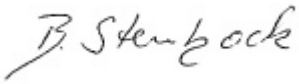
Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator Date Certified: 19-AUG-2022 14:11



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: IMKFSHCK **Collection Date/Time: 08/03/2022 11:24**

Field ID: AF70074 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2346071	EPA 8321B	Aldicarb	0.020	U	ug/L	P417651	
		Aldicarb Sulfone	0.0020	U	ug/L	P417651	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P417651	MS
		Carbaryl	0.0020	U	ug/L	P417651	
		Carbofuran	0.0020	U	ug/L	P417651	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P417651	
		Methiocarb	0.0020	U	ug/L	P417651	
		Methomyl	0.0020	U	ug/L	P417651	
		Oxamyl	0.0020	U	ug/L	P417651	
		Propoxur	0.0020	U	ug/L	P417651	
2346072		Acesulfame K	0.10	U	ug/L	P417605	
		2,4-D	0.017		ug/L	P417722	
		AMPA	0.34	I	ug/L	P417605	
		2,4,5-T	0.0040	U	ug/L	P417722	
		Acetaminophen	0.0080	U	ug/L	P417722	
		Acetamiprid	0.0020	U	ug/L	P417722	
		Endothall	0.25	UJ	ug/L	P417605	SUR
		Glufosinate	0.10	U	ug/L	P417605	
		Glyphosate	0.70		ug/L	P417605	
		Afidopyropen	0.0020	U	ug/L	P417722	
		Sucralose	0.025	I	ug/L	P417605	
		Bentazon	0.0017	I	ug/L	P417722	
		Benzovindiflupyr	0.0020	U	ug/L	P417722	
		Carbamazepine	8.0E-04	U	ug/L	P417722	
		Clothianidin	0.0041	I	ug/L	P417722	
		Dinotefuran	0.0031	I	ug/L	P417722	
		Diuron	0.0020	U	ug/L	P417722	
		Fenuron	0.032	U	ug/L	P417722	
		Fluridone	9.9E-04	I	ug/L	P417722	
		Imazapyr	0.047		ug/L	P417722	
		Hydrocodone	0.0020	U	ug/L	P417722	
		Ibuprofen	0.080	U	ug/L	P417722	
		Imidacloprid	0.014		ug/L	P417722	
		Linuron	0.0040	U	ug/L	P417722	
		Mandestrobin	0.0020	U	ug/L	P417722	
		MCPP	0.0040	U	ug/L	P417722	
		Naproxen	0.0080	U	ug/L	P417722	
		Primidone	0.0040	U	ug/L	P417722	
		Pyraclostrobin	0.0020	U	ug/L	P417722	
		Silvex	0.0040	U	ug/L	P417722	
		Thiamethoxam	0.0022	I	ug/L	P417722	MS
		Tolfenpyrad	0.0020	U	ug/L	P417722	
		Triclopyr	0.0040	U	ug/L	P417722	
2346073	EPA 8270E	Aldrin	0.71	U	ng/L	P417747	

Field ID: AF70074 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2346073	EPA 8270E	Alpha-BHC	0.11	U	ng/L	P417747	
		Alpha-Chlordane	0.22	U	ng/L	P417747	
		PCB-1016	2.2	U	ng/L	P417747	
		Beta-BHC	0.11	U	ng/L	P417747	
		PCB-1221	2.2	U	ng/L	P417747	
		Beta-Cyfluthrin	1.4	U	ng/L	P417747	
		PCB-1232	2.2	U	ng/L	P417747	
		Bifenthrin	0.55	U	ng/L	P417747	
		PCB-1242	2.2	U	ng/L	P417747	
		PCB-1248	2.2	U	ng/L	P417747	
		Chlorothalonil	1.4	U	ng/L	P417747	
		PCB-1254	2.2	U	ng/L	P417747	
		Cis-Nonachlor	0.22	U	ng/L	P417747	
		PCB-1260	2.2	U	ng/L	P417747	
		Cypermethrin	1.6	U	ng/L	P417747	
		Dacthal	0.16	U	ng/L	P417747	
		DDD-p,p'	0.27	U	ng/L	P417747	
		DDE-p,p'	0.22	U	ng/L	P417747	
		DDT-p,p'	0.27	U	ng/L	P417747	
		Delta-BHC	0.44	U	ng/L	P417747	
		Deltamethrin	1.4	U	ng/L	P417747	
		Dichlobenil	0.27	U	ng/L	P417747	
		Dicofol	1.4	U	ng/L	P417747	
		Dieldrin	0.44	U	ng/L	P417747	
		Endosulfan I	0.44	U	ng/L	P417747	
		Endosulfan II	0.44	U	ng/L	P417747	
		Endosulfan Sulfate	0.33	U	ng/L	P417747	
		Endrin	0.44	U	ng/L	P417747	
		Endrin Aldehyde	0.82	U	ng/L	P417747	
		Endrin Ketone	0.44	U	ng/L	P417747	
		Esfenvalerate	0.82	U	ng/L	P417747	
		Ethalfluralin	0.16	U	ng/L	P417747	
		Fenpropathrin	0.27	U	ng/L	P417747	
		Gamma-BHC	0.14	U	ng/L	P417747	
		Gamma-Chlordane	0.22	U	ng/L	P417747	
		Heptachlor	0.22	U	ng/L	P417747	
		Heptachlor Epoxide	0.27	U	ng/L	P417747	
		Hexachlorobenzene**	1.1	U	ng/L	P417747	
		Kepone	5.5	U	ng/L	P417747	
		Lambda-Cyhalothrin	0.82	U	ng/L	P417747	
		Methoprene	0.82	U	ng/L	P417747	
		Methoxychlor	0.33	U	ng/L	P417747	
		MGK-264	0.22	U	ng/L	P417747	
		Mirex	0.38	U	ng/L	P417747	
		Oxychlordane	0.33	U	ng/L	P417747	

Field ID: AF70074 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2346073	EPA 8270E	Permethrin	1.8	U	ng/L	P417747	
		Phenothrin	0.98	U	ng/L	P417747	
		Piperonyl Butoxide	0.89		ng/L	P417747	
		Prallethrin	2.2	U	ng/L	P417747	
		Tau-Fluvalinate	0.27	U	ng/L	P417747	
		Tetramethrin	0.82	U	ng/L	P417747	
		Trans-Nonachlor	0.22	U	ng/L	P417747	
		Triclosan Methyl	0.16	U	ng/L	P417747	
		Trifluralin	0.22	U	ng/L	P417747	
	EPA 8276	Chlordane	2.7	U	ng/L	P417747	
		Toxaphene	16	U	ng/L	P417747	
2346074	EPA 8270E	Oxybenzone**	11	U	ng/L	P418014	
		Acetochlor	0.26	U	ng/L	P418014	
		Octinoxate**	21	U	ng/L	P418014	
		Alachlor	0.26	U	ng/L	P418014	
		Avobenzone**	110	U	ng/L	P418014	
		Ametryn	0.64	U	ng/L	P418014	
		Atrazine	2.5		ng/L	P418014	
		PBDE-47**	4.2	U	ng/L	P418014	
		Atrazine Desethyl	1.6	U	ng/L	P418014	
		PBDE-99**	5.3	U	ng/L	P418014	
		Azinphos Methyl	2.1	U	ng/L	P418014	
		Tri-o-cresyl Phosphate**	6.4	U	ng/L	P418014	
		Azoxystrobin	1.1	I	ng/L	P418014	
		Bromacil	5.6		ng/L	P418014	
		2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)**	13	U	ng/L	P418014	
		Butylate	0.42	U	ng/L	P418014	
		Caffeine**	8.4	I	ng/L	P418014	
		Carbophenothion	0.21	U	ng/L	P418014	
		Carfentrazone Ethyl	0.11	U	ng/L	P418014	
		Chlorfenapyr	0.19	U	ng/L	P418014	
		Chlorpyrifos Ethyl	0.26	U	ng/L	P418014	
		Chlorpyrifos Methyl	0.053	U	ng/L	P418014	
		Coumaphos	0.53	U	ng/L	P418014	
		Cyanazine	3.4	U	ng/L	P418014	
		Cyprodinil	0.11	U	ng/L	P418014	
		Demeton	1.6	U	ng/L	P418014	
		Diazinon	0.13	U	ng/L	P418014	
		Difenoconazole	0.64	U	ng/L	P418014	
		Dimethenamid	0.14	I	ng/L	P418014	
		Dimethomorph	0.19	U	ng/L	P418014	
		Disulfoton	0.53	U	ng/L	P418014	
		Dithiopyr	0.19	U	ng/L	P418014	MS, RPD
		EPTC	1.3	U	ng/L	P418014	

Field ID: AF70074 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2346074	EPA 8270E	Ethion	0.16	U	ng/L	P418014	
		Ethoprop	0.11	U	ng/L	P418014	
		Etridiazole	0.16	U	ng/L	P418014	
		Fenamiphos	0.53	U	ng/L	P418014	
		Fenbuconazole	0.93		ng/L	P418014	
		Fipronil	0.26	U	ng/L	P418014	
		Fipronil Desulfinyl**	0.13	U	ng/L	P418014	
		Fipronil Sulfide	0.16	U	ng/L	P418014	
		Fipronil Sulfone	0.16	U	ng/L	P418014	
		Fluazifop-P-butyl	0.11	U	ng/L	P418014	
		Fludioxonil	0.13	U	ng/L	P418014	
		Flumioxazin	1.9	U	ng/L	P418014	
		Flutolanil	0.11	U	ng/L	P418014	
		Fluxapyroxad	0.23	I	ng/L	P418014	
		Fonofos	0.21	U	ng/L	P418014	
		Hexazinone	3.4		ng/L	P418014	
		Imazalil	0.79	U	ng/L	P418014	
		Iprodione	0.64	U	ng/L	P418014	
		Loratadine**	0.11	U	ng/L	P418014	
		Malathion	0.37	U	ng/L	P418014	
		Metalaxyl	0.79	U	ng/L	P418014	
		Metolachlor	3.2		ng/L	P418014	
		Metribuzin	2.6	U	ng/L	P418014	
		Mevinphos	1.1	U	ng/L	P418014	
		Molinate	0.32	U	ng/L	P418014	
		Myclobutanil	0.26	U	ng/L	P418014	
		Naled	1.6	U	ng/L	P418014	MS
		Napropamide	0.42	U	ng/L	P418014	
		Norflurazon	64		ng/L	P418014	
		Oxadiazon	0.52	I	ng/L	P418014	
		Oxyfluorfen	0.16	U	ng/L	P418014	
		Parathion Ethyl	0.26	U	ng/L	P418014	
		Parathion Methyl	0.58	U	ng/L	P418014	
		Pendimethalin	1.1	U	ng/L	P418014	
		Phenytoin**	3.7	U	ng/L	P418014	
		Phorate	0.56	U	ng/L	P418014	
		Prodiamine	0.19	U	ng/L	P418014	
		Prometon	0.95	U	ng/L	P418014	
		Prometryn	0.21	U	ng/L	P418014	MS
		Pronamide	0.16	U	ng/L	P418014	
		Propanil	0.13	U	ng/L	P418014	
		Propargite	1.6	U	ng/L	P418014	
		Propiconazole	0.53	U	ng/L	P418014	
		Pyraflufen Ethyl	0.26	U	ng/L	P418014	
		Pyridaben	0.88	I	ng/L	P418014	

Field ID: AF70074 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2346074	EPA 8270E	Pyriproxyfen	0.13	U	ng/L	P418014	
		Simazine	0.53	U	ng/L	P418014	
		Stirophos	0.13	U	ng/L	P418014	MS, RPD
		Sulfentrazone	1.5	I	ng/L	P418014	
		Tebuconazole	0.53	U	ng/L	P418014	
		Terbufos	0.11	U	ng/L	P418014	
		Terbuthylazine	0.45	U	ng/L	P418014	
		Thiobencarb	0.64	U	ng/L	P418014	
		Triadimefon	0.26	U	ng/L	P418014	

Ref. Method and Comment:
EPA 8321B: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8270E: MS accuracy for multiple parameters not assessed due to high content of these parameters in the sample spiked.

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P417747

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
Ethalfluralin	0.15	U	ng/L
Ethalfluralin	0.15	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P417747

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: P417747

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: P418014

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: P418014

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: P418014

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
Phenytoin	3.5	U	ng/L
Phenytoin	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: P418014

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: P417747

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: P417605

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: P417651

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: P417722

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P417747

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	50.7		P	10 - 92.0
Alpha-BHC	88.5		P	75 - 107
Alpha-Chlordane	64.5		P	50 - 108
Beta-BHC	110		P	36 - 138
Beta-Cyfluthrin	63.0		P	20 - 161
Bifenthrin	40.0		P	10 - 119
Chlorothalonil	91.7		P	26 - 186
Cis-Nonachlor	76.4		P	42 - 119
Cypermethrin	59.8		P	22 - 150
Dacthal	88.7		P	72 - 119
DDD-p,p'	76.8		P	45 - 107
DDE-p,p'	74.5		P	48 - 106
DDT-p,p'	69.7		P	48 - 110
Delta-BHC	125		P	54 - 140
Deltamethrin	73.5		P	22 - 189
Dichlobenil	93.9		P	36 - 117
Dicofol	82.3		P	46 - 155
Dieldrin	77.5		P	54 - 110
Endosulfan I	75.2		P	59 - 105
Endosulfan II	67.0		P	51 - 118
Endosulfan Sulfate	79.0		P	57 - 121
Endrin	73.8		P	10 - 120
Endrin Aldehyde	83.3		P	34 - 118
Endrin Ketone	105		P	69 - 177
Esfenvalerate	57.4		P	23 - 168
Ethalfluralin	67.2		P	49 - 99.0
Fenpropathrin	63.6		P	34 - 117
Gamma-BHC	105		P	72 - 117
Gamma-Chlordane	69.2		P	43 - 106
Heptachlor	64.9		P	41 - 98.0
Heptachlor Epoxide	73.3		P	57 - 106
Hexachlorobenzene	68.9		P	36 - 99.0
Kepone	38.4		P	16 - 215
Lambda-Cyhalothrin	46.0		P	21 - 177
Methoprene	42.7		P	10 - 119
Methoxychlor	82.6		P	60 - 112
MGK-264	80.3		P	26 - 122
Mirex	46.2		P	10 - 169
Oxychlordane	66.4		P	43 - 105
PCB-1016	84.2		P	48 - 112
PCB-1260	85.9		P	44 - 118
Permethrin	60.6		P	24 - 148
Phenothrin	40.9		P	10 - 106
Piperonyl Butoxide	97.0		P	10 - 139
Prallethrin	84.3		P	17 - 109
Tau-Fluvalinate	49.1		P	13 - 131
Tetramethrin	78.6		P	10 - 132
Trans-Nonachlor	64.3		P	44 - 106
Triclosan Methyl	74.6		P	59 - 109
Trifluralin	67.7		P	44 - 101

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P418014

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	78.6		P	50 - 150
Acetochlor	98.8		P	70 - 121
Alachlor	90.2		P	68 - 119
Ametryn	101		P	64 - 139
Atrazine	84.4		P	76 - 120
Atrazine Desethyl	62.8		P	44 - 126
Avobenzone	76.8		P	76 - 212
Azinphos Methyl	147		P	43 - 192
Azoxystrobin	95.8		P	36 - 224
Bromacil	88.1		P	52 - 121
Butylate	46.2		P	28 - 91.0
Caffeine	73.6		P	50 - 134
Carbophenothion	60.6		P	56 - 129
Carfentrazone Ethyl	79.8		P	60 - 141
Chlorfenapyr	63.9		P	56 - 115
Chlorpyrifos Ethyl	81.7		P	60 - 118
Chlorpyrifos Methyl	84.2		P	68 - 119
Coumaphos	90.3		P	18 - 250
Cyanazine	148		P	61 - 250
Cyprodinil	96.6		P	55 - 145
Demeton	72.1		P	30 - 159
Diazinon	82.9		P	70 - 123
Difenoconazole	70.8		P	49 - 204
Dimethenamid	79.4		P	64 - 115
Dimethomorph	91.5		P	12 - 219
Disulfoton	70.0		P	44 - 125
Dithiopyr	67.3		P	64 - 115
EPTC	41.5		P	28 - 86.0
Ethion	76.9		P	33 - 125
Ethoprop	83.3		P	64 - 116
Etridiazole	54.6		P	34 - 91.0
Fenamiphos	102		P	12 - 127
Fenbuconazole	131		P	59 - 151
Fipronil	87.4		P	67 - 129
Fipronil Desulfinyl	66.9		P	65 - 127
Fipronil Sulfide	67.9		P	61 - 116
Fipronil Sulfone	87.5		P	55 - 117
Fluazifop-P-butyl	77.6		P	62 - 127
Fludioxonil	108		P	62 - 128
Flumioxazin	99.3		P	33 - 250
Flutolanil	112		P	56 - 127
Fluxapyroxad	106		P	45 - 128
Fonofos	71.0		P	62 - 111
Hexazinone	92.5		P	46 - 139
Imazalil	63.4		P	38 - 142
Iprodione	131		P	47 - 135
Loratadine	140		P	10 - 244
Malathion	93.3		P	61 - 139
Metalaxyl	83.5		P	10 - 119
Metolachlor	96.1		P	65 - 118
Metribuzin	90.5		P	51 - 250
Mevinphos	78.8		P	53 - 121

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P418014

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Molinate	60.5		P	42 - 96.0
Myclobutanil	114		P	55 - 128
Naled	69.8		P	10 - 98.0
Napropamide	70.4		P	49 - 121
Norflurazon	80.8		P	61 - 126
Octinoxate	85.4		P	30 - 159
Oxadiazon	89.5		P	59 - 116
Oxybenzone	73.1		P	61 - 139
Oxyfluorfen	106		P	64 - 137
Parathion Ethyl	100		P	70 - 112
Parathion Methyl	96.3		P	76 - 133
PBDE-47	77.3		P	50 - 150
PBDE-99	80.9		P	50 - 150
Pendimethalin	113		P	52 - 117
Phenytoin	64.2		P	10 - 199
Phorate	89.1		P	48 - 121
Prodiamine	65.0		P	26 - 142
Prometon	78.1		P	43 - 123
Prometryn	95.7		P	66 - 127
Pronamide	109		P	75 - 121
Propanil	97.3		P	45 - 150
Propargite	131		P	42 - 208
Propiconazole	89.8		P	60 - 125
Pyraflufen Ethyl	73.0		P	70 - 138
Pyridaben	129		P	35 - 245
Pyriproxyfen	146		P	30 - 149
Simazine	80.2		P	72 - 125
Stirophos	62.0		P	29 - 164
Sulfentrazone	77.7		P	21 - 139
Tebuconazole	108		P	10 - 115
Terbufos	91.5		P	60 - 123
Terbuthylazine	75.3		P	72 - 115
Thiobencarb	94.3		P	31 - 139
Tri-o-cresyl Phosphate	79.0		P	50 - 150
Triadimefon	83.8		P	65 - 116

Reference Method: EPA 8276
Batch ID: P417747

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	99.0		P	61 - 116
Toxaphene	98.1		P	48 - 124

Reference Method: EPA 8321B
Batch ID: P417605

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	119		P	40 - 150
AMPA	146		P	40 - 150
Endothall	109		P	40 - 150
Glufosinate	146		P	40 - 150
Glyphosate	134		P	40 - 150

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P417605

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	136		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P417651

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	101		P	40 - 150
Aldicarb	56.9		P	30 - 150
Aldicarb Sulfone	110		P	40 - 150
Aldicarb Sulfoxide	88.2		P	40 - 150
Carbaryl	98.3		P	40 - 150
Carbofuran	88.1		P	40 - 150
Methiocarb	93.4		P	40 - 150
Methomyl	89.3		P	40 - 150
Oxamyl	98.7		P	40 - 150
Propoxur	92.0		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P417722

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	117		P	40 - 150
2,4,5-T	98.8		P	40 - 150
Acetaminophen	82.9		P	30 - 150
Acetamiprid	73.6		P	40 - 150
Afidopyropen	62.7		P	30 - 150
Bentazon	77.9		P	30 - 150
Benzovindiflupyr	92.5		P	40 - 150
Carbamazepine	97.6		P	40 - 150
Clothianidin	110		P	40 - 150
Dinotefuran	108		P	40 - 150
Diuron	95.3		P	40 - 150
Fenuron	98.5		P	40 - 150
Fluridone	99.3		P	40 - 150
Hydrocodone	98.3		P	40 - 150
Ibuprofen	95.4		P	40 - 150
Imazapyr	114		P	40 - 150
Imidacloprid	98.0		P	40 - 150
Linuron	105		P	40 - 150
Mandestrobin	95.1		P	40 - 150
MCPP	107		P	40 - 150
Naproxen	78.4		P	40 - 150
Primidone	109		P	40 - 150
Pyraclostrobin	89.6		P	40 - 150
Silvex	105		P	40 - 150
Thiamethoxam	103		P	40 - 150
Tolfenpyrad	64.6		P	30 - 150
Triclopyr	115		P	40 - 150

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P417747

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2345548	Aldrin	55.4	60.9	P/P	20 - 82.0
2345548	Alpha-BHC	91.1	88.4	P/P	71 - 109
2345548	Alpha-Chlordane	62.8	58.9	P/P	42 - 106
2345548	Beta-BHC	98.8	111	P/P	69 - 180
2345548	Beta-Cyfluthrin	89.7	125	P/P	18 - 175
2345548	Bifenthrin	77.1	79.3	P/P	21 - 128
2345548	Chlorothalonil	95.4	152	P/P	10 - 300
2345548	Cis-Nonachlor	69.9	85.6	P/P	34 - 106
2345548	Cypermethrin	83.9	108	P/P	22 - 158
2345548	Dacthal	94.8	93.9	P/P	54 - 116
2345548	DDD-p,p'	56.6	75.8	P/P	34 - 107
2345548	DDE-p,p'	60.9	62.5	P/P	33 - 110
2345548	DDT-p,p'	76.2	64.6	P/P	50 - 122
2345548	Delta-BHC	117	142	P/P	77 - 193
2345548	Deltamethrin	100	126	P/P	10 - 195
2345548	Dichlobenil	68.1	69.3	P/P	25 - 113
2345548	Dicofol	97.8	97.2	P/P	38 - 247
2345548	Dieldrin	72.0	76.9	P/P	45 - 118
2345548	Endosulfan I	73.1	81.2	P/P	51 - 106
2345548	Endosulfan II	63.4	79.8	P/P	37 - 122
2345548	Endosulfan Sulfate	76.2	94.7	P/P	43 - 132
2345548	Endrin	71.5	85.8	P/P	29 - 101
2345548	Endrin Aldehyde	64.3	71.4	P/P	19 - 110
2345548	Endrin Ketone	86.2	108	P/P	60 - 140
2345548	Esfenvalerate	81.6	118	P/P	26 - 199
2345548	Ethalfluralin	72.7	78.5	P/P	45 - 99.0
2345548	Fenpropathrin	86.9	91.2	P/P	35 - 120
2345548	Gamma-BHC	100	102	P/P	63 - 128
2345548	Gamma-Chlordane	69.8	65.8	P/P	40 - 104
2345548	Heptachlor	67.3	67.0	P/P	36 - 97.0
2345548	Heptachlor Epoxide	83.6	84.8	P/P	49 - 184
2345548	Hexachlorobenzene	77.9	62.6	P/P	39 - 96.0
2345548	Kepone	34.2	51.9	P/P	10 - 217
2345548	Lambda-Cyhalothrin	76.6	92.7	P/P	21 - 193
2345548	Methoprene	56.9	65.5	P/P	20 - 106
2345548	Methoxychlor	92.7	88.0	P/P	53 - 118
2345548	MGK-264	85.5	95.5	P/P	40 - 118
2345548	Mirex	53.6	57.7	P/P	26 - 92.0
2345548	Oxychlordane	79.6	72.9	P/P	44 - 99.0
2345548	Permethrin	82.4	104	P/P	33 - 182
2345548	Phenothrin	68.6	91.9	P/P	10 - 129
2345548	Piperonyl Butoxide	112	126	P/P	10 - 211
2345548	Prallethrin	80.6	95.1	P/P	24 - 113
2345548	Tau-Fluvalinate	77.7	66.5	P/P	14 - 149
2345548	Tetramethrin	83.0	122	P/P	17 - 151
2345548	Trans-Nonachlor	73.5	69.6	P/P	42 - 102
2345548	Triclosan Methyl	78.5	69.8	P/P	48 - 108
2345548	Trifluralin	74.6	74.2	P/P	47 - 96.0
2345564	PCB-1016	86.5	87.1	P/P	46 - 111
2345564	PCB-1260	84.3	82.1	P/P	45 - 114

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P418014

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2346648	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	88.0	86.4	P/P	50 - 150
2346648	Acetochlor	101	94.5	P/P	65 - 124
2346648	Alachlor	118	105	P/P	61 - 121
2346648	Ametryn	208	177	P/P	52 - 216
2346648	Atrazine Desethyl	91.6	81.9	P/P	15 - 160
2346648	Avobenzone	86.2	91.7	P/P	59 - 206
2346648	Azinphos Methyl	182	136	P/P	40 - 292
2346648	Azoxystrobin	111	122	P/P	12 - 242
2346648	Bromacil	126	135	P/P	54 - 167
2346648	Butylate	40.9	49.9	P/P	14 - 94.0
2346648	Caffeine	93.7	93.7	P/P	10 - 226
2346648	Carbophenothion	71.7	63.5	P/P	49 - 122
2346648	Carfentrazone Ethyl	102	79.2	P/P	53 - 138
2346648	Chlorfenapyr	60.7	64.0	P/P	50 - 150
2346648	Chlorpyrifos Ethyl	98.9	100	P/P	52 - 122
2346648	Chlorpyrifos Methyl	102	87.8	P/P	66 - 117
2346648	Coumaphos	105	90.8	P/P	50 - 220
2346648	Cyanazine	201	168	P/P	43 - 245
2346648	Cyprodinil	144	131	P/P	50 - 150
2346648	Demeton	111	102	P/P	43 - 188
2346648	Diazinon	127	99.7	P/P	69 - 131
2346648	Difenoconazole	145	158	P/P	34 - 231
2346648	Dimethenamid	109	102	P/P	55 - 118
2346648	Dimethomorph	143	122	P/P	50 - 150
2346648	Disulfoton	103	94.7	P/P	38 - 141
2346648	Dithiopyr	51.3	39.2	P/F	42 - 116
2346648	EPTC	41.6	52.8	P/P	18 - 85.0
2346648	Ethion	79.6	65.0	P/P	10 - 131
2346648	Ethoprop	93.0	89.6	P/P	65 - 129
2346648	Etridiazole	66.1	67.9	P/P	50 - 150
2346648	Fenamiphos	105	109	P/P	31 - 137
2346648	Fenbuconazole	159	147	P/P	57 - 160
2346648	Fipronil	83.4	77.7	P/P	62 - 132
2346648	Fipronil Desulfinyl	85.1	67.2	P/P	57 - 131
2346648	Fluazifop-P-butyl	81.5	78.0	P/P	54 - 133
2346648	Fludioxonil	123	109	P/P	58 - 127
2346648	Flumioxazin	156	141	P/P	33 - 300
2346648	Flutolanil	126	110	P/P	42 - 130
2346648	Fluxapyroxad	70.3	69.1	P/P	23 - 141
2346648	Fonofos	64.9	60.4	P/P	58 - 119
2346648	Hexazinone	113	107	P/P	68 - 172
2346648	Imazalil	59.1	71.2	P/P	48 - 283
2346648	Iprodione	83.4	81.4	P/P	38 - 140
2346648	Loratadine	134	140	P/P	50 - 150
2346648	Malathion	105	100	P/P	40 - 137
2346648	Metalaxyl	108	96.6	P/P	21 - 129
2346648	Metolachlor	118	114	P/P	55 - 122
2346648	Metribuzin	103	97.7	P/P	38 - 187
2346648	Mevinphos	69.8	75.0	P/P	54 - 134
2346648	Molinate	75.1	78.4	P/P	41 - 97.0
2346648	Myclobutanil	69.3	72.2	P/P	56 - 125
2346648	Naled	200	221	F/F	10 - 108

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P418014

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2346648	Napropamide	89.6	66.4	P/P	50 - 150
2346648	Norflurazon	73.0	68.0	P/P	32 - 122
2346648	Octinoxate	86.2	84.3	P/P	25 - 150
2346648	Oxybenzone	67.4	63.0	P/P	59 - 147
2346648	Oxyfluorfen	137	109	P/P	61 - 153
2346648	Parathion Ethyl	102	107	P/P	59 - 130
2346648	Parathion Methyl	124	113	P/P	65 - 155
2346648	PBDE-47	79.1	77.4	P/P	50 - 150
2346648	PBDE-99	78.4	76.3	P/P	50 - 150
2346648	Pendimethalin	103	102	P/P	49 - 138
2346648	Phenytoin	75.4	82.1	P/P	50 - 200
2346648	Phorate	92.0	98.6	P/P	54 - 161
2346648	Prodiamine	120	85.3	P/P	33 - 161
2346648	Prometon	131	103	P/P	48 - 140
2346648	Prometryn	161	127	F/P	55 - 134
2346648	Pronamide	131	122	P/P	66 - 137
2346648	Propanil	118	127	P/P	50 - 150
2346648	Propargite	166	136	P/P	50 - 200
2346648	Propiconazole	119	81.1	P/P	36 - 150
2346648	Pyraflufen Ethyl	69.3	63.7	P/P	50 - 150
2346648	Pyridaben	188	162	P/P	50 - 200
2346648	Pyriproxyfen	160	143	P/P	10 - 165
2346648	Simazine	97.0	84.4	P/P	57 - 145
2346648	Stirophos	49.1	22.5	F/F	50 - 150
2346648	Tebuconazole	44.1	43.7	P/P	10 - 127
2346648	Terbufos	106	100	P/P	59 - 138
2346648	Terbuthylazine	96.1	78.2	P/P	68 - 119
2346648	Thiobencarb	114	105	P/P	50 - 150
2346648	Tri-o-cresyl Phosphate	75.3	73.2	P/P	50 - 150
2346648	Triadimefon	98.4	95.6	P/P	50 - 150

Reference Method: EPA 8276
Batch ID: P417747

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2345564	Chlordane	108	101	P/P	53 - 126
2345564	Toxaphene	126	120	P/P	56 - 211

Reference Method: EPA 8321B
Batch ID: P417605

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2345974	Acesulfame K	96.6	93.3	P/P	40 - 150
2345974	AMPA	111	110	P/P	40 - 150
2345974	Endothall	94.2	110	P/P	40 - 150
2345974	Glufosinate	90.8	88.8	P/P	40 - 150
2345974	Glyphosate	93.8	92.3	P/P	40 - 150
2345974	Sucralose	111	110	P/P	40 - 150

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P417651

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2345134	3-Hydroxycarbofuran	109	118	P/P	40 - 150
2345134	Aldicarb	70.4	58.0	P/P	30 - 150
2345134	Aldicarb Sulfone	127	134	P/P	40 - 150
2345134	Aldicarb Sulfoxide	39.7	46.5	F/P	40 - 150
2345134	Carbaryl	75.1	68.6	P/P	40 - 150
2345134	Carbofuran	80.0	81.1	P/P	40 - 150
2345134	Methiocarb	87.0	78.0	P/P	40 - 150
2345134	Methomyl	80.7	80.4	P/P	40 - 150
2345134	Oxamyl	97.4	97.1	P/P	40 - 150
2345134	Propoxur	72.9	72.0	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P417722

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2346036	2,4-D	89.6	99.1	P/P	40 - 150
2346036	2,4,5-T	59.3	71.4	P/P	40 - 150
2346036	Acetaminophen	70.5	75.1	P/P	30 - 150
2346036	Acetamiprid	57.8	50.4	P/P	40 - 150
2346036	Afidopyropen	67.8	75.3	P/P	30 - 150
2346036	Bentazon	42.1	49.5	P/P	30 - 150
2346036	Benzovindiflupyr	94.0	100	P/P	40 - 150
2346036	Carbamazepine	91.1	95.1	P/P	40 - 150
2346036	Clothianidin	116	110	P/P	40 - 150
2346036	Dinotefuran	135	139	P/P	40 - 150
2346036	Diuron	66.5	68.6	P/P	40 - 150
2346036	Fenuron	79.6	85.5	P/P	40 - 150
2346036	Fluridone	82.7	93.2	P/P	40 - 150
2346036	Hydrocodone	98.3	107	P/P	40 - 150
2346036	Ibuprofen	75.2	85.6	P/P	40 - 150
2346036	Imazapyr	56.9	73.4	P/P	40 - 150
2346036	Imidacloprid	123	133	P/P	40 - 150
2346036	Linuron	89.8	84.6	P/P	40 - 150
2346036	Mandestrobin	83.3	86.3	P/P	40 - 150
2346036	MCPP	77.0	83.9	P/P	40 - 150
2346036	Naproxen	65.1	64.0	P/P	40 - 150
2346036	Primidone	118	105	P/P	40 - 150
2346036	Pyraclostrobin	81.3	91.8	P/P	40 - 150
2346036	Silvex	86.6	79.4	P/P	40 - 150
2346036	Thiamethoxam	143	155	P/F	40 - 150
2346036	Tolfenpyrad	50.9	60.2	P/P	30 - 150
2346036	Triclopyr	88.5	98.9	P/P	40 - 150

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P417747

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2345548	Aldrin	9.43	Spike	P	0 - 41
2345548	Alpha-BHC	2.91	Spike	P	0 - 25
2345548	Alpha-Chlordane	5.63	Spike	P	0 - 33
2345548	Beta-BHC	11.3	Spike	P	0 - 36
2345548	Beta-Cyfluthrin	33.3	Spike	P	0 - 42
2345548	Bifenthrin	2.83	Spike	P	0 - 53
2345548	Chlorothalonil	45.7	Spike	P	0 - 71
2345548	Cis-Nonachlor	20.2	Spike	P	0 - 29
2345548	Cypermethrin	25.1	Spike	P	0 - 40
2345548	Dacthal	0.913	Spike	P	0 - 26
2345548	DDD-p,p'	25.6	Spike	P	0 - 39
2345548	DDE-p,p'	2.15	Spike	P	0 - 33
2345548	DDT-p,p'	15.4	Spike	P	0 - 40
2345548	Delta-BHC	19.0	Spike	P	0 - 37
2345548	Deltamethrin	22.9	Spike	P	0 - 100
2345548	Dichlobenil	1.77	Spike	P	0 - 40
2345548	Dicofol	0.682	Spike	P	0 - 31
2345548	Dieldrin	5.38	Spike	P	0 - 27
2345548	Endosulfan I	10.6	Spike	P	0 - 23
2345548	Endosulfan II	22.8	Spike	P	0 - 28
2345548	Endosulfan Sulfate	21.7	Spike	P	0 - 38
2345548	Endrin	18.2	Spike	P	0 - 63
2345548	Endrin Aldehyde	10.4	Spike	P	0 - 60
2345548	Endrin Ketone	22.6	Spike	P	0 - 37
2345548	Esfenvalerate	36.5	Spike	P	0 - 52
2345548	Ethalfluralin	7.66	Spike	P	0 - 23
2345548	Fenpropathrin	4.91	Spike	P	0 - 32
2345548	Gamma-BHC	1.98	Spike	P	0 - 17
2345548	Gamma-Chlordane	5.38	Spike	P	0 - 40
2345548	Heptachlor	0.323	Spike	P	0 - 29
2345548	Heptachlor Epoxide	1.41	Spike	P	0 - 25
2345548	Hexachlorobenzene	21.7	Spike	P	0 - 36
2345548	Kepone	25.5	Spike	P	0 - 93
2345548	Lambda-Cyhalothrin	19.0	Spike	P	0 - 55
2345548	Methoprene	14.0	Spike	P	0 - 53
2345548	Methoxychlor	5.16	Spike	P	0 - 29
2345548	MGK-264	11.0	Spike	P	0 - 35
2345548	Mirex	7.44	Spike	P	0 - 46
2345548	Oxychlordane	8.87	Spike	P	0 - 29
2345548	Permethrin	22.9	Spike	P	0 - 44
2345548	Phenothrin	29.1	Spike	P	0 - 56
2345548	Piperonyl Butoxide	11.4	Spike	P	0 - 100
2345548	Prallethrin	16.5	Spike	P	0 - 42
2345548	Tau-Fluvalinate	15.6	Spike	P	0 - 54
2345548	Tetramethrin	38.1	Spike	P	0 - 51
2345548	Trans-Nonachlor	5.49	Spike	P	0 - 37
2345548	Triclosan Methyl	11.7	Spike	P	0 - 31
2345548	Trifluralin	0.508	Spike	P	0 - 30
2345564	PCB-1016	0.723	Spike	P	0 - 32
2345564	PCB-1260	2.61	Spike	P	0 - 31

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P418014

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2346648	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	1.89	Spike	P	0 - 30
2346648	Acetochlor	6.77	Spike	P	0 - 27
2346648	Alachlor	11.8	Spike	P	0 - 27
2346648	Ametryn	16.2	Spike	P	0 - 34
2346648	Atrazine	1.14	Spike	P	0 - 41
2346648	Atrazine Desethyl	11.1	Spike	P	0 - 38
2346648	Avobenzone	6.18	Spike	P	0 - 30
2346648	Azinphos Methyl	28.8	Spike	P	0 - 62
2346648	Azoxystrobin	8.99	Spike	P	0 - 32
2346648	Bromacil	6.64	Spike	P	0 - 30
2346648	Butylate	19.9	Spike	P	0 - 59
2346648	Caffeine	0.0523	Spike	P	0 - 60
2346648	Carbophenothion	12.2	Spike	P	0 - 25
2346648	Carfentrazone Ethyl	25.5	Spike	P	0 - 26
2346648	Chlorfenapyr	5.30	Spike	P	0 - 30
2346648	Chlorpyrifos Ethyl	1.11	Spike	P	0 - 27
2346648	Chlorpyrifos Methyl	14.6	Spike	P	0 - 26
2346648	Coumaphos	14.8	Spike	P	0 - 30
2346648	Cyanazine	18.1	Spike	P	0 - 58
2346648	Cyprodinil	10.0	Spike	P	0 - 30
2346648	Demeton	8.81	Spike	P	0 - 25
2346648	Diazinon	24.0	Spike	P	0 - 29
2346648	Difenoconazole	8.45	Spike	P	0 - 25
2346648	Dimethenamid	5.11	Spike	P	0 - 30
2346648	Dimethomorph	15.7	Spike	P	0 - 30
2346648	Disulfoton	8.02	Spike	P	0 - 33
2346648	Dithiopyr	23.3	Spike	F	0 - 22
2346648	EPTC	23.8	Spike	P	0 - 38
2346648	Ethion	20.1	Spike	P	0 - 79
2346648	Ethoprop	3.65	Spike	P	0 - 23
2346648	Etridiazole	2.73	Spike	P	0 - 30
2346648	Fenamiphos	3.82	Spike	P	0 - 58
2346648	Fenbuconazole	8.17	Spike	P	0 - 37
2346648	Fipronil	5.95	Spike	P	0 - 33
2346648	Fipronil Desulfinyl	13.9	Spike	P	0 - 26
2346648	Fipronil Sulfide	13.0	Spike	P	0 - 37
2346648	Fipronil Sulfone	31.0	Spike	P	0 - 50
2346648	Fluazifop-P-butyl	4.38	Spike	P	0 - 24
2346648	Fludioxonil	11.7	Spike	P	0 - 26
2346648	Flumioxazin	10.1	Spike	P	0 - 37
2346648	Flutolanil	12.9	Spike	P	0 - 26
2346648	Fluxapyroxad	1.14	Spike	P	0 - 34
2346648	Fonofos	7.22	Spike	P	0 - 27
2346648	Hexazinone	5.04	Spike	P	0 - 36
2346648	Imazalil	18.6	Spike	P	0 - 65
2346648	Iprodione	2.38	Spike	P	0 - 33
2346648	Loratadine	4.52	Spike	P	0 - 30
2346648	Malathion	4.81	Spike	P	0 - 44
2346648	Metalaxyl	11.0	Spike	P	0 - 38
2346648	Metolachlor	3.15	Spike	P	0 - 36
2346648	Metribuzin	5.05	Spike	P	0 - 63

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P418014

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2346648	Mevinphos	7.22	Spike	P	0 - 26
2346648	Molinate	4.30	Spike	P	0 - 40
2346648	Myclobutanil	2.74	Spike	P	0 - 21
2346648	Naled	10.1	Spike	P	0 - 26
2346648	Napropamide	29.7	Spike	P	0 - 30
2346648	Norflurazon	7.10	Spike	P	0 - 24
2346648	Octinoxate	2.26	Spike	P	0 - 30
2346648	Oxadiazon	1.30	Spike	P	0 - 27
2346648	Oxybenzone	6.78	Spike	P	0 - 30
2346648	Oxyfluorfen	22.6	Spike	P	0 - 24
2346648	Parathion Ethyl	4.21	Spike	P	0 - 28
2346648	Parathion Methyl	9.19	Spike	P	0 - 27
2346648	PBDE-47	2.11	Spike	P	0 - 30
2346648	PBDE-99	2.71	Spike	P	0 - 30
2346648	Pendimethalin	0.656	Spike	P	0 - 31
2346648	Phenytoin	8.57	Spike	P	0 - 30
2346648	Phorate	6.90	Spike	P	0 - 27
2346648	Prodiamine	31.4	Spike	P	0 - 52
2346648	Prometon	21.6	Spike	P	0 - 31
2346648	Prometryn	24.0	Spike	P	0 - 28
2346648	Pronamide	7.30	Spike	P	0 - 26
2346648	Propanil	7.33	Spike	P	0 - 30
2346648	Propargite	19.9	Spike	P	0 - 30
2346648	Propiconazole	24.8	Spike	P	0 - 31
2346648	Pyraflufen Ethyl	8.35	Spike	P	0 - 30
2346648	Pyridaben	14.6	Spike	P	0 - 30
2346648	Pyriproxyfen	11.4	Spike	P	0 - 50
2346648	Simazine	13.9	Spike	P	0 - 29
2346648	Stirophos	74.5	Spike	F	0 - 30
2346648	Sulfentrazone	3.58	Spike	P	0 - 33
2346648	Tebuconazole	0.743	Spike	P	0 - 44
2346648	Terbufos	5.66	Spike	P	0 - 29
2346648	Terbuthylazine	20.5	Spike	P	0 - 27
2346648	Thiobencarb	7.61	Spike	P	0 - 30
2346648	Tri-o-cresyl Phosphate	2.85	Spike	P	0 - 30
2346648	Triadimefon	2.45	Spike	P	0 - 30

Reference Method: EPA 8276
Batch ID: P417747

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2345564	Chlordane	6.89	Spike	P	0 - 25
2345564	Toxaphene	5.48	Spike	P	0 - 26

Reference Method: EPA 8321B
Batch ID: P417605

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2345974	Acesulfame K	3.46	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P417605

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2345974	AMPA	1.26	Spike	P	0 - 30
2345974	Endothall	15.4	Spike	P	0 - 30
2345974	Glufosinate	2.31	Spike	P	0 - 30
2345974	Glyphosate	1.53	Spike	P	0 - 30
2345974	Sucralose	0.576	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P417651

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2345134	3-Hydroxycarbofuran	8.12	Spike	P	0 - 30
2345134	Aldicarb	19.3	Spike	P	0 - 30
2345134	Aldicarb Sulfone	5.47	Spike	P	0 - 30
2345134	Aldicarb Sulfoxide	15.8	Spike	P	0 - 30
2345134	Carbaryl	9.13	Spike	P	0 - 30
2345134	Carbofuran	1.46	Spike	P	0 - 30
2345134	Methiocarb	10.9	Spike	P	0 - 30
2345134	Methomyl	0.384	Spike	P	0 - 30
2345134	Oxamyl	0.215	Spike	P	0 - 30
2345134	Propoxur	1.33	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P417722

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2346036	2,4-D	8.89	Spike	P	0 - 30
2346036	2,4,5-T	18.6	Spike	P	0 - 30
2346036	Acetaminophen	6.26	Spike	P	0 - 30
2346036	Acetamiprid	13.6	Spike	P	0 - 30
2346036	Afidopyropen	10.5	Spike	P	0 - 30
2346036	Bentazon	16.2	Spike	P	0 - 30
2346036	Benzovindiflupyr	6.54	Spike	P	0 - 30
2346036	Carbamazepine	4.28	Spike	P	0 - 30
2346036	Clothianidin	4.88	Spike	P	0 - 30
2346036	Dinotefuran	3.01	Spike	P	0 - 30
2346036	Diuron	3.11	Spike	P	0 - 30
2346036	Fenuron	7.11	Spike	P	0 - 30
2346036	Fluridone	11.9	Spike	P	0 - 30
2346036	Hydrocodone	8.68	Spike	P	0 - 30
2346036	Ibuprofen	12.9	Spike	P	0 - 30
2346036	Imazapyr	18.8	Spike	P	0 - 30
2346036	Imidacloprid	7.63	Spike	P	0 - 30
2346036	Linuron	6.01	Spike	P	0 - 30
2346036	Mandestrobin	3.54	Spike	P	0 - 30
2346036	MCPP	8.58	Spike	P	0 - 30
2346036	Naproxen	1.80	Spike	P	0 - 30
2346036	Primidone	11.7	Spike	P	0 - 30
2346036	Pyraclostrobin	12.1	Spike	P	0 - 30
2346036	Silvex	8.60	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P417722

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2346036	Thiamethoxam	7.99	Spike	P	0 - 30
2346036	Tolfenpyrad	16.7	Spike	P	0 - 30
2346036	Triclopyr	11.1	Spike	P	0 - 30

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

Quality Assurance Report
Surrogates

Lab Sample ID: 2346071
Field Sample ID: AF70074

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	63.1	P	30 - 160

Lab Sample ID: 2346072
Field Sample ID: AF70074

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	91.9	P	30 - 160
EPA 8321B	Acetaminophen-d4	71.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	91.2	P	30 - 160
EPA 8321B	Diuron-d6	77.0	P	30 - 160
EPA 8321B	Endothall-d6	181	F	30 - 160
EPA 8321B	Glyphosate 13C 15N	106	P	30 - 160
EPA 8321B	Ibuprofen-d3	91.2	P	30 - 160
EPA 8321B	Primidone-d5	104	P	30 - 160
EPA 8321B	Sucralose-d6	110	P	30 - 160

Lab Sample ID: 2346073
Field Sample ID: AF70074

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	83.1	P	29 - 130
EPA 8270E	Decachlorobiphenyl	58.8	P	30 - 118
EPA 8270E	Tetrachloro-m-xylene	58.4	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	43.8	P	30 - 97.0
EPA 8276	Decachlorobiphenyl	69.5	P	30 - 101
EPA 8276	PCNB	79.8	P	48 - 121

Lab Sample ID: 2346074
Field Sample ID: AF70074

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	92.8	P	20 - 200
EPA 8270E	Simazine-d10	92.7	P	71 - 140
EPA 8270E	Terbufos-d10	70.4	P	62 - 131
EPA 8270E	Terphenyl-d14	78.6	P	52 - 141

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A113947
Included Lab Sample IDs: 2346072

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	96.9	94.9	P/P	60 - 160
Sucralose	113	112	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A113950
Included Lab Sample IDs: 2346072

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	125	126	P/P	60 - 160
Endothall	102	98.4	P/P	60 - 160
Glufosinate	107	103	P/P	60 - 160
Glyphosate	119	118	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A113978
Included Lab Sample IDs: 2346071

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	73.8	81.1	P/P	60 - 150
Aldicarb	70.6	73.2	P/P	60 - 150
Aldicarb Sulfone	61.3	69.9	P/P	50 - 150
Aldicarb Sulfoxide	70.6	78.0	P/P	50 - 150
Carbaryl	71.7	81.0	P/P	60 - 150
Carbofuran	67.0	72.8	P/P	50 - 150
Methiocarb	70.8	76.6	P/P	50 - 150
Methomyl	79.6	82.6	P/P	50 - 150
Oxamyl	86.3	89.7	P/P	50 - 150
Propoxur	72.9	83.4	P/P	50 - 150

Reference Method: EPA 8276
Run ID: A114079
Included Lab Sample IDs: 2346073

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	101		P	80 - 120
Toxaphene	109		P	80 - 120

Reference Method: EPA 8270E
Run ID: A114080
Included Lab Sample IDs: 2346073

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	97.5		P	80 - 120
PCB-1260	97.1		P	80 - 120

Reference Method: EPA 8321B
Run ID: A114103
Included Lab Sample IDs: 2346072

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	96.2	97.2	P/P	50 - 150

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A114103
Included Lab Sample IDs: 2346072

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4,5-T	120	87.7	P/P	50 - 150
Acetaminophen	103	105	P/P	60 - 160
Acetamiprid	86.0	91.6	P/P	50 - 150
Afidopyropen	109	90.5	P/P	50 - 150
Bentazon	91.6	82.2	P/P	50 - 160
Benzovindiflupyr	110	89.7	P/P	50 - 150
Carbamazepine	93.9	87.5	P/P	60 - 150
Clothianidin	94.2	97.0	P/P	60 - 150
Dinotefuran	100	106	P/P	50 - 150
Diuron	94.9	90.7	P/P	60 - 160
Fenuron	98.9	96.5	P/P	60 - 150
Fluridone	117	108	P/P	60 - 160
Hydrocodone	105	104	P/P	60 - 150
Ibuprofen	90.1	107	P/P	50 - 160
Imazapyr	96.7	96.0	P/P	50 - 150
Imidacloprid	95.7	97.2	P/P	60 - 150
Linuron	113	116	P/P	60 - 150
Mandestrobin	94.1	102	P/P	50 - 150
MCPP	104	102	P/P	50 - 150
Naproxen	115	104	P/P	50 - 160
Primidone	109	106	P/P	60 - 150
Pyraclostrobin	103	101	P/P	60 - 150
Silvex	110	90.5	P/P	50 - 150
Thiamethoxam	98.0	98.1	P/P	50 - 150
Tolfenpyrad	93.0	103	P/P	60 - 150
Triclopyr	117	90.8	P/P	50 - 150

Reference Method: EPA 8270E
Run ID: A114136
Included Lab Sample IDs: 2346074

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	95.1		P	80 - 120
Avobenzone	101		P	80 - 120
Octinoxate	94.4		P	80 - 120
Oxybenzone	95.3		P	80 - 120
PBDE-47	94.7		P	80 - 120
PBDE-99	95.5		P	80 - 120
Tri-o-cresyl Phosphate	98.2		P	80 - 120

Reference Method: EPA 8270E
Run ID: A114147
Included Lab Sample IDs: 2346073

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	96.2		P	80 - 120
Alpha-BHC	97.9		P	80 - 120
Alpha-Chlordane	109		P	80 - 120
Beta-BHC	109		P	80 - 120
Beta-Cyfluthrin	113		P	80 - 120
Bifenthrin	111		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A114147
Included Lab Sample IDs: 2346073

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cis-Nonachlor	114		P	80 - 120
Cypermethrin	113		P	80 - 120
Dacthal	102		P	80 - 120
DDD-p,p'	106		P	80 - 120
DDE-p,p'	108		P	80 - 120
DDT-p,p'	98.9		P	80 - 120
Delta-BHC	105		P	80 - 120
Deltamethrin	109		P	80 - 120
Dichlobenil	94.4		P	80 - 120
Dicofol	101		P	80 - 120
Dieldrin	98.3		P	80 - 120
Endosulfan I	104		P	80 - 120
Endosulfan II	109		P	80 - 120
Endosulfan Sulfate	109		P	80 - 120
Endrin	109		P	80 - 120
Endrin Aldehyde	99.1		P	80 - 120
Endrin Ketone	106		P	80 - 120
Esfenvalerate	100		P	80 - 120
Ethalfluralin	102		P	80 - 120
Fenpropathrin	110		P	80 - 120
Gamma-BHC	106		P	80 - 120
Gamma-Chlordane	99.7		P	80 - 120
Heptachlor	97.0		P	80 - 120
Heptachlor Epoxide	100		P	80 - 120
Hexachlorobenzene	101		P	80 - 120
Kepone	88.9		P	80 - 120
Lambda-Cyhalothrin	110		P	80 - 120
Methoprene	108		P	80 - 120
Methoxychlor	104		P	80 - 120
MGK-264	106		P	80 - 120
Mirex	109		P	80 - 120
Oxychlordane	109		P	80 - 120
Permethrin	111		P	80 - 120
Phenothrin	112		P	80 - 120
Piperonyl Butoxide	85.8		P	80 - 120
Prallethrin	93.2		P	80 - 120
Tau-Fluvalinate	113		P	80 - 120
Tetramethrin	102		P	80 - 120
Trans-Nonachlor	114		P	80 - 120
Triclosan Methyl	103		P	80 - 120
Trifluralin	97.9		P	80 - 120

Reference Method: EPA 8270E
Run ID: A114149
Included Lab Sample IDs: 2346074

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	109		P	80 - 120
Alachlor	107		P	80 - 120
Ametryn	94.3		P	80 - 120
Atrazine	98.6		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A114149
Included Lab Sample IDs: 2346074

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Atrazine Desethyl	101		P	80 - 120
Azinphos Methyl	105		P	80 - 120
Azoxystrobin	98.8		P	80 - 120
Bromacil	96.1		P	80 - 120
Butylate	103		P	80 - 120
Caffeine	98.0		P	80 - 120
Carbophenothion	93.6		P	80 - 120
Carfentrazone Ethyl	94.7		P	80 - 120
Chlorfenapyr	106		P	80 - 120
Chlorpyrifos Ethyl	107		P	80 - 120
Chlorpyrifos Methyl	111		P	80 - 120
Coumaphos	92.6		P	80 - 120
Cyanazine	104		P	80 - 120
Cyprodinil	111		P	80 - 120
Demeton	99.4		P	80 - 120
Diazinon	89.7		P	80 - 120
Difenoconazole	101		P	80 - 120
Dimethenamid	108		P	80 - 120
Dimethomorph	102		P	80 - 120
Disulfoton	104		P	80 - 120
Dithiopyr	102		P	80 - 120
EPTC	86.4		P	80 - 120
Ethion	98.5		P	80 - 120
Ethoprop	99.1		P	80 - 120
Etridiazole	104		P	80 - 120
Fenamiphos	107		P	80 - 120
Fenbuconazole	110		P	80 - 120
Fipronil	116		P	80 - 120
Fipronil Desulfinyl	99.7		P	80 - 120
Fipronil Sulfide	102		P	80 - 120
Fipronil Sulfone	96.3		P	80 - 120
Fluazifop-P-butyl	110		P	80 - 120
Fludioxonil	110		P	80 - 120
Flumioxazin	101		P	80 - 120
Flutolanil	105		P	80 - 120
Fluxapyroxad	95.9		P	80 - 120
Fonofos	96.4		P	80 - 120
Hexazinone	96.1		P	80 - 120
Imazalil	108		P	80 - 120
Iprodione	98.5		P	80 - 120
Loratadine	96.1		P	80 - 120
Malathion	96.1		P	80 - 120
Metalaxyl	105		P	80 - 120
Metolachlor	107		P	80 - 120
Metribuzin	102		P	80 - 120
Mevinphos	96.2		P	80 - 120
Molinate	99.8		P	80 - 120
Myclobutanil	116		P	80 - 120
Naled	96.9		P	80 - 120
Napropamide	108		P	80 - 120
Norflurazon	95.3		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A114149
Included Lab Sample IDs: 2346074

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Oxadiazon	103		P	80 - 120
Oxyfluorfen	113		P	80 - 120
Parathion Ethyl	91.9		P	80 - 120
Parathion Methyl	91.5		P	80 - 120
Pendimethalin	104		P	80 - 120
Phenytoin	103		P	80 - 120
Phorate	99.4		P	80 - 120
Prodiamine	96.6		P	80 - 120
Prometon	94.9		P	80 - 120
Prometryn	108		P	80 - 120
Pronamide	94.3		P	80 - 120
Propanil	111		P	80 - 120
Propargite	102		P	80 - 120
Propiconazole	98.8		P	80 - 120
Pyraflufen Ethyl	94.3		P	80 - 120
Pyridaben	107		P	80 - 120
Pyriproxyfen	111		P	80 - 120
Simazine	102		P	80 - 120
Stirophos	114		P	80 - 120
Sulfentrazone	95.7		P	80 - 120
Tebuconazole	98.9		P	80 - 120
Terbufos	99.2		P	80 - 120
Terbuthylazine	102		P	80 - 120
Thiobencarb	105		P	80 - 120
Triadimefon	103		P	80 - 120

Reference Method: EPA 8270E
Run ID: A114176
Included Lab Sample IDs: 2346073

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlorothalonil	119		P	80 - 120

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

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8270E	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	78.6	88.0	86.4			1.89
	Acetochlor	98.8	101	94.5			6.77
	Alachlor	90.2	118	105			11.8
	Aldrin	50.7	55.4	60.9			9.43
	Alpha-BHC	88.5	91.1	88.4			2.91
	Alpha-Chlordane	64.5	62.8	58.9			5.63
	Ametryn	101	208	177			16.2
	Atrazine	84.4					1.14
	Atrazine Desethyl	62.8	91.6	81.9			11.1
	Avobenzone	76.8	86.2	91.7			6.18
	Azinphos Methyl	147	182	136			28.8
	Azoxystrobin	95.8	111	122			8.99
	Beta-BHC	110	98.8	111			11.3
	Beta-Cyfluthrin	63.0	89.7	125			33.3
	Bifenthrin	40.0	77.1	79.3			2.83
	Bromacil	88.1	126	135			6.64
	Butylate	46.2	40.9	49.9			19.9
	Caffeine	73.6	93.7	93.7			0.0523
	Carbophenothion	60.6	71.7	63.5			12.2
	Carfentrazone Ethyl	79.8	102	79.2			25.5
	Chlorfenapyr	63.9	60.7	64.0			5.30
	Chlorothalonil	91.7	95.4	152			45.7
	Chlorpyrifos Ethyl	81.7	98.9	100			1.11
	Chlorpyrifos Methyl	84.2	102	87.8			14.6
	Cis-Nonachlor	76.4	69.9	85.6			20.2
	Coumaphos	90.3	105	90.8			14.8
	Cyanazine	148	201	168			18.1
	Cypermethrin	59.8	83.9	108			25.1
	Cyprodinil	96.6	144	131			10.0
	Dacthal	88.7	94.8	93.9			0.913
	DDD-p,p'	76.8	56.6	75.8			25.6
	DDE-p,p'	74.5	60.9	62.5			2.15
	DDT-p,p'	69.7	76.2	64.6			15.4
	Delta-BHC	125	117	142			19.0
	Deltamethrin	73.5	100	126			22.9
	Demeton	72.1	111	102			8.81
	Diazinon	82.9	127	99.7			24.0
	Dichlobenil	93.9	68.1	69.3			1.77
	Dicofol	82.3	97.8	97.2			0.682
	Dieldrin	77.5	72.0	76.9			5.38
	Difenoconazole	70.8	145	158			8.45
	Dimethenamid	79.4	109	102			5.11
	Dimethomorph	91.5	143	122			15.7
	Disulfoton	70.0	103	94.7			8.02
	Dithiopyr	67.3	51.3	39.2			23.3
	Endosulfan I	75.2	73.1	81.2			10.6
	Endosulfan II	67.0	63.4	79.8			22.8
	Endosulfan Sulfate	79.0	76.2	94.7			21.7
	Endrin	73.8	71.5	85.8			18.2
	Endrin Aldehyde	83.3	64.3	71.4			10.4
	Endrin Ketone	105	86.2	108			22.6
	EPTC	41.5	41.6	52.8			23.8

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8270E	Esfenvalerate	57.4	118	81.6			36.5
	Ethalfluralin	67.2	78.5	72.7			7.66
	Ethion	76.9	79.6	65.0			20.1
	Ethoprop	83.3	93.0	89.6			3.65
	Etridiazole	54.6	66.1	67.9			2.73
	Fenamiphos	102	105	109			3.82
	Fenbuconazole	131	159	147			8.17
	Fenpropathrin	63.6	91.2	86.9			4.91
	Fipronil	87.4	83.4	77.7			5.95
	Fipronil Desulfinyl	66.9	85.1	67.2			13.9
	Fipronil Sulfide	67.9					13.0
	Fipronil Sulfone	87.5					31.0
	Fluazifop-P-butyl	77.6	81.5	78.0			4.38
	Fludioxonil	108	123	109			11.7
	Flumioxazin	99.3	156	141			10.1
	Flutolanil	112	126	110			12.9
	Fluxapyroxad	106	70.3	69.1			1.14
	Fonofos	71.0	64.9	60.4			7.22
	Gamma-BHC	105	102	100			1.98
	Gamma-Chlordane	69.2	65.8	69.8			5.38
	Heptachlor	64.9	67.0	67.3			0.323
	Heptachlor Epoxide	73.3	84.8	83.6			1.41
	Hexachlorobenzene	68.9	62.6	77.9			21.7
	Hexazinone	92.5	113	107			5.04
	Imazalil	63.4	59.1	71.2			18.6
	Iprodione	131	83.4	81.4			2.38
	Kepone	38.4	51.9	34.2			25.5
	Lambda-Cyhalothrin	46.0	92.7	76.6			19.0
	Loratadine	140	134	140			4.52
	Malathion	93.3	105	100			4.81
	Metalaxyl	83.5	108	96.6			11.0
	Methoprene	42.7	65.5	56.9			14.0
	Methoxychlor	82.6	88.0	92.7			5.16
	Metolachlor	96.1	118	114			3.15
	Metribuzin	90.5	103	97.7			5.05
	Mevinphos	78.8	69.8	75.0			7.22
	MGK-264	80.3	95.5	85.5			11.0
	Mirex	46.2	57.7	53.6			7.44
	Molinate	60.5	75.1	78.4			4.30
	Myclobutanil	114	69.3	72.2			2.74
	Naled	69.8	200	221			10.1
	Napropamide	70.4	89.6	66.4			29.7
	Norflurazon	80.8	73.0	68.0			7.10
	Octinoxate	85.4	86.2	84.3			2.26
	Oxadiazon	89.5					1.30
	Oxybenzone	73.1	67.4	63.0			6.78
	Oxychlordane	66.4	72.9	79.6			8.87
	Oxyfluorfen	106	137	109			22.6
	Parathion Ethyl	100	102	107			4.21
	Parathion Methyl	96.3	124	113			9.19
	PBDE-47	77.3	79.1	77.4			2.11
	PBDE-99	80.9	78.4	76.3			2.71
	PCB-1016	84.2	86.5	87.1			0.723
	PCB-1260	85.9	84.3	82.1			2.61

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8270E	Pendimethalin	113	103	102			0.656
	Permethrin	60.6	104	82.4			22.9
	Phenothrin	40.9	91.9	68.6			29.1
	Phenytoin	64.2	75.4	82.1			8.57
	Phorate	89.1	92.0	98.6			6.90
	Piperonyl Butoxide	97.0	126	112			11.4
	Prallethrin	84.3	95.1	80.6			16.5
	Prodiamine	65.0	120	85.3			31.4
	Prometon	78.1	131	103			21.6
	Prometryn	95.7	161	127			24.0
	Pronamide	109	131	122			7.30
	Propanil	97.3	118	127			7.33
	Propargite	131	166	136			19.9
	Propiconazole	89.8	119	81.1			24.8
	Pyraflufen Ethyl	73.0	69.3	63.7			8.35
	Pyridaben	129	188	162			14.6
	Pyriproxyfen	146	160	143			11.4
	Simazine	80.2	97.0	84.4			13.9
	Stirophos	62.0	49.1	22.5			74.5
	Sulfentrazone	77.7					3.58
	Tau-Fluvalinate	49.1	66.5	77.7			15.6
	Tebuconazole	108	44.1	43.7			0.743
	Terbufos	91.5	106	100			5.66
	Terbuthylazine	75.3	96.1	78.2			20.5
	Tetramethrin	78.6	122	83.0			38.1
	Thiobencarb	94.3	114	105			7.61
	Trans-Nonachlor	64.3	69.6	73.5			5.49
	Tri-o-cresyl Phosphate	79.0	75.3	73.2			2.85
	Triadimefon	83.8	98.4	95.6			2.45
	Triclosan Methyl	74.6	69.8	78.5			11.7
	Trifluralin	67.7	74.2	74.6			0.508
EPA 8276	Chlordane	99.0	108	101			6.89
	Toxaphene	98.1	126	120			5.48
EPA 8321B	2,4-D	117	89.6	99.1			8.89
	2,4,5-T	98.8	59.3	71.4			18.6
	3-Hydroxycarbofuran	101	109	118			8.12
	Acesulfame K	119	96.6	93.3			3.46
	Acetaminophen	82.9	70.5	75.1			6.26
	Acetamiprid	73.6	57.8	50.4			13.6
	Afidopyropen	62.7	67.8	75.3			10.5
	Aldicarb	56.9	70.4	58.0			19.3
	Aldicarb Sulfone	110	127	134			5.47
	Aldicarb Sulfoxide	88.2	39.7	46.5			15.8
	AMPA	146	111	110			1.26
	Bentazon	77.9	42.1	49.5			16.2
	Benzovindiflupyr	92.5	94.0	100			6.54
	Carbamazepine	97.6	91.1	95.1			4.28
	Carbaryl	98.3	75.1	68.6			9.13
	Carbofuran	88.1	80.0	81.1			1.46
	Clothianidin	110	116	110			4.88
	Dinotefuran	108	135	139			3.01
	Diuron	95.3	66.5	68.6			3.11
	Endothall	109	94.2	110			15.4
	Fenuron	98.5	79.6	85.5			7.11

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8321B	Fluridone	99.3	82.7	93.2			11.9
	Glufosinate	146	90.8	88.8			2.31
	Glyphosate	134	93.8	92.3			1.53
	Hydrocodone	98.3	98.3	107			8.68
	Ibuprofen	95.4	75.2	85.6			12.9
	Imazapyr	114	56.9	73.4			18.8
	Imidacloprid	98.0	123	133			7.63
	Linuron	105	89.8	84.6			6.01
	Mandestrobin	95.1	83.3	86.3			3.54
	MCPP	107	77.0	83.9			8.58
	Methiocarb	93.4	87.0	78.0			10.9
	Methomyl	89.3	80.7	80.4			0.384
	Naproxen	78.4	65.1	64.0			1.80
	Oxamyl	98.7	97.4	97.1			0.215
	Primidone	109	118	105			11.7
	Propoxur	92.0	72.9	72.0			1.33
	Pyraclostrobin	89.6	81.3	91.8			12.1
	Silvex	105	86.6	79.4			8.60
	Sucralose	136	111	110			0.576
	Thiamethoxam	103	143	155			7.99
	Tolfenpyrad	64.6	50.9	60.2			16.7
	Triclopyr	115	88.5	98.9			11.1

Reference Method Descriptions

Method	Description	Associated Samples
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2346074
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2346073
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2346074
EPA 8270E	PCBs in water matrices by GC/MS/MS	2346073
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2346073
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2346071
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2346072

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8270E	08/04/2022	08/08/2022 08:30	Rasheda Ghaffari	08/12/2022 01:47	Julie Wi	2346073
	08/04/2022	08/08/2022 08:30	Rasheda Ghaffari	08/16/2022 18:40	Vandana T. Nagar	2346073
	08/04/2022	08/08/2022 08:30	Rasheda Ghaffari	08/18/2022 02:47	Vandana T. Nagar	2346073
	08/04/2022	08/10/2022 08:30	Rasheda Ghaffari	08/15/2022 17:43	Lipi Saha	2346074
	08/04/2022	08/10/2022 08:30	Rasheda Ghaffari	08/15/2022 21:42	Michael Poppell	2346074
EPA 8276	08/04/2022	08/08/2022 08:30	Rasheda Ghaffari	08/12/2022 08:40	Arthur Maknenko	2346073
EPA 8321B	08/04/2022	08/05/2022 13:00	Umesh Chiluwal	08/05/2022 17:29	Umesh Chiluwal	2346072
	08/04/2022	08/05/2022 13:00	Umesh Chiluwal	08/06/2022 09:47	Umesh Chiluwal	2346072
	08/04/2022	08/08/2022 09:00	Hoor Shaik	08/08/2022 22:15	Juyoung Kim	2346071
	08/04/2022	08/10/2022 09:00	Hoor Shaik	08/12/2022 21:23	Juyoung Kim	2346072