

Chemical Analysis Report

SE-DIST-2021-02-23-01

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

Event Description: **02/2021 DI investigation**

Request ID: **RQ-2021-02-15-48**

Customer: **SE-DIST**

Project ID: **DISCRTNARY**

Send Reports to:

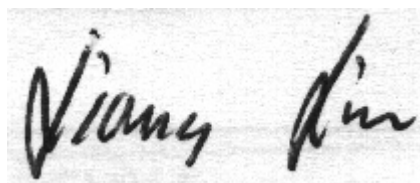
FL Dept. of Environmental Protection
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2199 South Rock Road
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Attn: Jordan Skaggs

For additional information please contact

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Certified by: Liang Lin, Environmental Administrator

Date Certified: 18-MAR-2021 15:28

A handwritten signature in black ink, appearing to read "Liang Lin", is shown 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 groups are included in this report: Metals, Nutrients and Pesticides.

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

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

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

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

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

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

Precision is reported as relative percent difference unless otherwise noted.

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

QC Codes used in this report may include:

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

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

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

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

Sample Location: UF/IFAS St. Lucie IRREC

Collection Date/Time: 02/22/2021 12:00

Field ID: IFAS_DI

Matrix: DI-WATER

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2226405	EPA 180.1 Rev. 2.0	Turbidity	0.20		NTU	P394118	
	EPA 300.0 Rev. 2.1	Bromide	0.013	U	mg Br/L	P394335	
		Chloride	0.20	U	mg Cl/L	P394241	
		Sulfate	0.20	U	mg SO4/L	P394243	
	SM 2120 B-2011	Color (true)	2.5	U	PCU	P394122	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P394419	
	SM 2540 C-2011	TDS	15	U	mg/L	P394602	
	SM 2540 D-2011	TSS	2	U	mg/L	P394529	
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P394357	
2226406	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P394299	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P394203	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P394133	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P394153	
	SM 5310 B-2011	Organic Carbon	0.50	U	mg C/L	P394646	
2226407	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P394102	
2226408	EPA 8321B	Aldicarb	0.020	U	ug/L	P394079	
		Aldicarb Sulfone	0.0020	U	ug/L	P394079	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P394079	
		Carbaryl	0.0020	U	ug/L	P394079	
		Carbofuran	0.0020	U	ug/L	P394079	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P394079	
		Methiocarb	0.0020	U	ug/L	P394079	
		Methomyl	0.0020	U	ug/L	P394079	
		Oxamyl	0.0020	U	ug/L	P394079	
		Propoxur	0.0020	U	ug/L	P394079	
2226409		2,4-D	0.0020	U	ug/L	P394025	
		Acesulfame K	0.10	U	ug/L	P394077	MS
		2,4,5-T	0.0040	U	ug/L	P394025	
		AMPA	0.10	U	ug/L	P394077	
		Sucralose	0.010	U	ug/L	P394077	
		Acetaminophen**	0.0080	U	ug/L	P394025	RPD
		Acetamiprid**	0.0020	U	ug/L	P394025	
		Endothall	0.25	U	ug/L	P394077	
		Glufosinate	0.10	U	ug/L	P394077	
		Glyphosate	0.10	U	ug/L	P394077	
		Afidopyropen**	0.0020	U	ug/L	P394025	
		Bentazon	8.0E-04	U	ug/L	P394025	MS
		Benzovindiflupyr**	0.0020	U	ug/L	P394025	
		Carbamazepine**	8.0E-04	U	ug/L	P394025	
		Clothianidin**	0.0020	U	ug/L	P394025	
		Dinotefuran**	0.0020	U	ug/L	P394025	
		Diuron	0.0020	U	ug/L	P394025	
		Fenuron	0.016	U	ug/L	P394025	

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Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2226409	EPA 8321B	Fluridone**	8.0E-04	U	ug/L	P394025	RPD
		Imazapyr**	0.0040	U	ug/L	P394025	
		Hydrocodone**	0.0020	U	ug/L	P394025	
		Ibuprofen**	0.020	U	ug/L	P394025	
		Imidacloprid	0.0020	U	ug/L	P394025	
		Linuron	0.0040	U	ug/L	P394025	
		Mandestrobin**	0.0020	U	ug/L	P394025	
		MCP	0.0020	U	ug/L	P394025	
		Naproxen**	0.0080	U	ug/L	P394025	
		Primidone**	0.0040	U	ug/L	P394025	
		Pyraclostrobin**	0.0020	U	ug/L	P394025	
		Thiamethoxam**	0.0020	U	ug/L	P394025	
		Tolfenpyrad**	0.0020	U	ug/L	P394025	
		Triclopyr**	0.0040	U	ug/L	P394025	
2226410	EPA 8270E	Aldrin	0.84	U	ng/L	P394044	MS
		Dieldrin	0.45	U	ng/L	P394044	
		Alpha-BHC	2.2	U	ng/L	P394044	
		Kepone**	6.2	U	ng/L	P394044	
		Alpha-Chlordane	1.1	U	ng/L	P394044	
		Beta-BHC	9.0	U	ng/L	P394044	
		Beta-Cyfluthrin**	17	U	ng/L	P394044	
		Bifenthrin**	4.5	U	ng/L	P394044	
		Delta-BHC	9.0	U	ng/L	P394044	
		Gamma-BHC	9.0	U	ng/L	P394044	
		Chlorothalonil	2.2	U	ng/L	P394044	
		Cis-Nonachlor**	1.1	U	ng/L	P394044	
		Cypermethrin	22	U	ng/L	P394044	
		Dacthal**	1.1	U	ng/L	P394044	
		DDD-p,p'	5.6	U	ng/L	P394044	
		DDE-p,p'	5.6	U	ng/L	P394044	
		DDT-p,p'	6.7	U	ng/L	P394044	
		Deltamethrin**	22	U	ng/L	P394044	
		Dicofol	34	U	ng/L	P394044	
		Endosulfan I	4.5	U	ng/L	P394044	
		Endosulfan II	4.5	U	ng/L	P394044	
		Endosulfan Sulfate	2.2	U	ng/L	P394044	
		Endrin	2.2	U	ng/L	P394044	
		Endrin Aldehyde	2.2	U	ng/L	P394044	
		Endrin Ketone	2.2	U	ng/L	P394044	
		Ethalfuralin**	3.4	U	ng/L	P394044	
		Gamma-Chlordane	1.1	U	ng/L	P394044	
		Dichlobenil**	2.2	U	ng/L	P394044	
		Esfenvalerate**	22	U	ng/L	P394044	
		Fenpropathrin**	11	U	ng/L	P394044	
		Heptachlor	1.7	U	ng/L	P394044	

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Matrix: DI-WATER

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2226410	EPA 8270E	Heptachlor Epoxide	2.2	U	ng/L	P394044	MS
		Hexachlorobenzene	2.2	U	ng/L	P394044	
		Lambda-Cyhalothrin**	17	U	ng/L	P394044	
		Methoxychlor	4.5	U	ng/L	P394044	
		Mirex	2.2	U	ng/L	P394044	
		MGK-264**	3.4	U	ng/L	P394044	
		Permethrin	11	U	ng/L	P394044	
		Phenothrin**	34	U	ng/L	P394044	
		Piperonyl Butoxide**	1.7	U	ng/L	P394044	
		Prallethrin**	28	U	ng/L	P394044	
		Tau-Fluvalinate**	3.9	U	ng/L	P394044	
		Tetramethrin**	9.0	U	ng/L	P394044	
		Trans-Nonachlor**	1.1	U	ng/L	P394044	
		Triclosan Methyl**	1.1	U	ng/L	P394044	
		Trifluralin	2.8	U	ng/L	P394044	
		Chlordane	5.6	U	ng/L	P394044	
		Toxaphene	34	UJ	ng/L	P394044	
		Acetochlor	0.25	U	ng/L	P393999	LCS
2226411	EPA 8270E	Alachlor	0.25	U	ng/L	P393999	
		Ametryn	0.60	U	ng/L	P393999	
		Atrazine	0.25	U	ng/L	P393999	
		Atrazine Desethyl	1.5	U	ng/L	P393999	
		Azinphos Methyl	2.0	U	ng/L	P393999	
		Azoxystrobin**	0.50	UJ	ng/L	P393999	
		Bromacil	0.50	U	ng/L	P393999	
		Butylate	0.40	U	ng/L	P393999	
		Caffeine**	5.0	U	ng/L	P393999	
		Carbophenothion	0.50	U	ng/L	P393999	
		Carfentrazone Ethyl**	0.10	U	ng/L	P393999	
		Chlorpyrifos Ethyl	0.25	U	ng/L	P393999	
		Chlorpyrifos Methyl	0.050	U	ng/L	P393999	
		Cyanazine	3.2	U	ng/L	P393999	
		Demeton	1.5	U	ng/L	P393999	
		Diazinon	0.12	U	ng/L	P393999	
		Difenoconazole**	0.60	UJ	ng/L	P393999	
		Dimethenamid**	0.10	U	ng/L	P393999	
		Disulfoton	0.50	U	ng/L	P393999	
		Dithiopyr**	0.17	U	ng/L	P393999	
		EPTC	1.2	U	ng/L	P393999	
		Ethion	0.15	UJ	ng/L	P393999	
		Ethoprop	0.10	U	ng/L	P393999	
		Fenamiphos	0.50	U	ng/L	P393999	
		Fenbuconazole**	0.12	U	ng/L	P393999	
		Fipronil	0.25	U	ng/L	P393999	
		Fipronil Desulfinyl**	0.12	U	ng/L	P393999	
							RPD

Field ID: IFAS_DI

Matrix: DI-WATER

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2226411	EPA 8270E	Fipronil Sulfide	0.15	U	ng/L	P393999	RPD
		Fipronil Sulfone	0.15	U	ng/L	P393999	
		Fluazifop-P-butyl**	0.10	U	ng/L	P393999	
		Fludioxonil**	0.12	U	ng/L	P393999	
		Flumioxazin**	1.7	UJ	ng/L	P393999	
		Flutolanil**	0.10	U	ng/L	P393999	
		Fluxapyroxad**	0.10	U	ng/L	P393999	
		Fonofos	0.20	U	ng/L	P393999	
		Hexazinone	0.50	U	ng/L	P393999	
		Imazalil**	0.75	U	ng/L	P393999	
		Iprodione**	0.60	U	ng/L	P393999	
		Malathion	0.35	U	ng/L	P393999	
		Metalaxyl	0.75	U	ng/L	P393999	
		Metolachlor	0.35	U	ng/L	P393999	
		Metribuzin	3.2	U	ng/L	P393999	
		Mevinphos	1.0	U	ng/L	P393999	
		Molinate	0.30	U	ng/L	P393999	
		Myclobutanil**	0.25	U	ng/L	P393999	
		Naled**	1.5	U	ng/L	P393999	
		Norflurazon	0.50	U	ng/L	P393999	
		Oxadiazon	0.30	U	ng/L	P393999	
		Oxyfluorfen**	0.15	U	ng/L	P393999	
		Parathion Ethyl	0.25	U	ng/L	P393999	
		Parathion Methyl	0.55	U	ng/L	P393999	
		Pendimethalin	1.0	U	ng/L	P393999	
		Phorate	0.52	U	ng/L	P393999	
		Prodiamine**	0.17	U	ng/L	P393999	
		Prometon	0.90	U	ng/L	P393999	
		Prometryn	0.20	U	ng/L	P393999	
		Pronamide**	0.15	U	ng/L	P393999	
		Propiconazole**	0.50	U	ng/L	P393999	
		Pyriproxyfen**	0.12	U	ng/L	P393999	
		Simazine	0.50	U	ng/L	P393999	
		Sulfentrazone**	0.50	U	ng/L	P393999	
		Tebuconazole**	0.50	UJ	ng/L	P393999	RPD
		Terbufos	0.10	U	ng/L	P393999	
		Terbuthylazine	0.42	U	ng/L	P393999	
2226412	EPA 200.7 Rev. 4.4	Barium	1.0	U	ug/L	P394173	
		Calcium	0.075	U	mg/L	P394173	
		Iron	30	U	ug/L	P394173	
		Magnesium	0.040	U	mg/L	P394173	
		Manganese	1.0	U	ug/L	P394173	
		Potassium	0.30	U	mg/L	P394173	
		Sodium	0.50	U	mg/L	P394173	
		Zinc	5.0	U	ug/L	P394173	

Field ID: IFAS_DI

Matrix: DI-WATER

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2226412	EPA 200.8 Rev. 5.4	Aluminum	5.0	U	ug/L	P394173	
		Antimony	0.050	U	ug/L	P394173	
		Arsenic	0.050	U	ug/L	P394173	
		Beryllium	0.010	U	ug/L	P394173	
		Boron**	202		ug/L	P394173	
		Cadmium	0.020	U	ug/L	P394173	
		Chromium	0.40	U	ug/L	P394173	
		Copper	0.40	U	ug/L	P394173	
		Lead	0.20	U	ug/L	P394173	
		Nickel	0.50	U	ug/L	P394173	
		Selenium	0.20	U	ug/L	P394173	
		Silver	0.010	U	ug/L	P394173	
		Thallium	0.10	U	ug/L	P394173	
	SM 2340B	Hardness	0.35	U	mg/L	P394173	

Ref. Method and Comment:

EPA 180.1 Rev. 2.0: The result was confirmed on 02/23//2021.

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 8276: Refer to the Lab Analysis Report for an explanation of QC Codes.

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

EPA 200.8 Rev. 5.4: The boron result was confirmed in the undigested sample on 03/08/2021.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P394118

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P394173

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

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P394173

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P394241

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P394243

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P394335

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P394299

Component	Result	Code	Units
Ammonia-N	0.002	U	mg N/L

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P394203

Component	Result	Code	Units
Kjeldahl Nitrogen	0.080	U	mg N/L

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P394133

Component	Result	Code	Units
NO2NO3-N	0.004	U	mg N/L

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P394153

Component	Result	Code	Units
Total-P	0.002	U	mg P/L

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P394102

Component	Result	Code	Units
O-Phosphate-P	0.004	U	mg P/L

Reference Method: EPA 8270E
Batch ID: P393999

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azoxystrobin	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Caffeine	5.0	U	ng/L
Carbophenothion	0.50	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Cyanazine	3.2	U	ng/L
Demeton	1.5	U	ng/L
Diazinon	0.12	U	ng/L
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.18	U	ng/L
EPTC	1.2	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P393999

Component	Result	Code	Units
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.12	U	ng/L
Flumioxazin	1.8	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.75	U	ng/L
Iprodione	0.60	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.75	U	ng/L
Metolachlor	0.35	U	ng/L
Metribuzin	3.2	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.30	U	ng/L
Myclobutanil	0.25	U	ng/L
Naled	1.5	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.52	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Pronamide	0.15	U	ng/L
Propiconazole	0.50	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Simazine	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbutylazine	0.42	U	ng/L

Reference Method: EPA 8270E

Batch ID: P394044

Component	Result	Code	Units
Aldrin	0.75	U	ng/L
Alpha-BHC	2.0	U	ng/L
Alpha-Chlordane	1.0	U	ng/L
Beta-BHC	8.0	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P394044

Component	Result	Code	Units
Beta-Cyfluthrin	15	U	ng/L
Bifenthrin	4.0	U	ng/L
Chlorothalonil	2.0	U	ng/L
Cis-Nonachlor	1.0	U	ng/L
Cypermethrin	20	U	ng/L
Dacthal	1.0	U	ng/L
DDD-p,p'	5.0	U	ng/L
DDE-p,p'	5.0	U	ng/L
DDT-p,p'	6.0	U	ng/L
Delta-BHC	8.0	U	ng/L
Deltamethrin	20	U	ng/L
Dichlobenil	2.0	U	ng/L
Dicofol	30	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	4.0	U	ng/L
Endosulfan II	4.0	U	ng/L
Endosulfan Sulfate	2.0	U	ng/L
Endrin	2.0	U	ng/L
Endrin Aldehyde	2.0	U	ng/L
Endrin Ketone	2.0	U	ng/L
Esfenvalerate	20	U	ng/L
Ethalfuralin	3.0	U	ng/L
Fenpropathrin	10	U	ng/L
Gamma-BHC	8.0	U	ng/L
Gamma-Chlordane	1.0	U	ng/L
Heptachlor	1.5	U	ng/L
Heptachlor Epoxide	2.0	U	ng/L
Hexachlorobenzene	2.0	U	ng/L
Kepone	5.5	U	ng/L
Lambda-Cyhalothrin	15	U	ng/L
Methoxychlor	4.0	U	ng/L
MGK-264	3.0	U	ng/L
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L
Phenothrin	30	U	ng/L
Piperonyl Butoxide	1.5	U	ng/L
Prallethrin	25	U	ng/L
Tau-Fluvalinate	3.5	U	ng/L
Tetramethrin	8.0	U	ng/L
Trans-Nonachlor	1.0	U	ng/L
Triclosan Methyl	1.0	U	ng/L
Trifluralin	2.5	U	ng/L

Reference Method: EPA 8276

Batch ID: P394044

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P394025

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

Reference Method: EPA 8321B

Batch ID: P394077

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
AMPA	0.10	U	ug/L
Endothall	0.25	U	ug/L
Glufosinate	0.10	U	ug/L
Glyphosate	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B

Batch ID: P394079

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

Method Blank Results

Reference Method: SM 2120 B-2011
Batch ID: P394122

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P394419

Component	Result	Code	Units
Total Alkalinity	0.65	U	mg CaCO ₃ /L

Reference Method: SM 2540 C-2011
Batch ID: P394602

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P394529

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P394357

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P394646

Component	Result	Code	Units
Organic Carbon	0.50	U	mg C/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P394173

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	98.6		P	85 - 115
Calcium	103		P	85 - 115
Iron	99.1		P	85 - 115
Magnesium	94.8		P	85 - 115
Manganese	97.8		P	85 - 115
Potassium	98.8		P	85 - 115
Sodium	103		P	85 - 115
Zinc	98.4		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P394173

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	100		P	85 - 115
Antimony	101		P	85 - 115
Arsenic	100		P	85 - 115
Beryllium	92.7		P	85 - 115
Boron	97.8		P	85 - 115
Cadmium	95.2		P	85 - 115
Chromium	96.4		P	85 - 115
Copper	96.8		P	85 - 115
Lead	105		P	85 - 115
Nickel	98.0		P	85 - 115
Selenium	100		P	85 - 115
Silver	104		P	85 - 115
Thallium	102		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P394241

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	102		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P394243

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P394335

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Bromide	96.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P394299

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	101		P	90 - 110

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P394203

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	108		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P394133

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	98.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P394153

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	104		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P394102

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	99.2		P	90 - 110

Reference Method: EPA 8270E

Batch ID: P393999

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	103	87.0	P/P	70 - 121
Alachlor	101	89.1	P/P	70 - 119
Ametryn	120	103	P/P	61 - 135
Atrazine	103	88.7	P/P	76 - 123
Atrazine Desethyl	101	84.6	P/P	35 - 140
Azinphos Methyl	144	114	P/P	57 - 163
Azoxystrobin	121	48.2	P/P	43 - 231
Bromacil	103	80.0	P/P	42 - 123
Butylate	64.1	58.5	P/P	34 - 92.0
Caffeine	98.3	89.3	P/P	70 - 130
Carbophenothion	88.0	80.6	P/P	61 - 121
Carfentrazone Ethyl	113	97.3	P/P	62 - 139
Chlorpyrifos Ethyl	91.2	78.5	P/P	67 - 121
Chlorpyrifos Methyl	101	87.6	P/P	67 - 120
Cyanazine	153	143	P/P	20 - 226
Demeton	91.0	77.9	P/P	35 - 125
Diazinon	111	93.7	P/P	70 - 122
Difenoconazole	144	84.6	P/P	56 - 186
Dimethenamid	101	82.7	P/P	67 - 119
Disulfoton	99.3	89.0	P/P	47 - 120
Dithiopyr	93.8	79.4	P/P	67 - 118
EPTC	64.0	55.6	P/P	33 - 90.0
Ethion	64.7	43.0	P/P	40 - 133
Ethoprop	104	86.1	P/P	61 - 121
Fenamiphos	102	78.3	P/P	31 - 139
Fenbuconazole	119	95.1	P/P	66 - 141
Fipronil	111	91.0	P/P	62 - 129
Fipronil Desulfinyl	101	83.3	P/P	59 - 126

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P393999

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fipronil Sulfide	92.2	72.8	P/P	63 - 117
Fipronil Sulfone	79.8	65.8	P/P	57 - 117
Fluazifop-P-butyl	95.6	86.0	P/P	63 - 124
Fludioxonil	106	80.1	P/P	63 - 123
Flumioxazin	158	96.4	P/P	34 - 245
Flutolanil	109	82.6	P/P	56 - 131
Fluxapyroxad	95.0	75.8	P/P	57 - 117
Fonofos	101	83.9	P/P	61 - 116
Hexazinone	98.2	81.0	P/P	55 - 138
Imazalil	94.4	75.2	P/P	33 - 143
Iprodione	94.3	71.7	P/P	59 - 118
Malathion	103	83.0	P/P	62 - 138
Metalaxyl	101	85.3	P/P	24 - 147
Metolachlor	99.7	82.0	P/P	68 - 118
Metribuzin	111	90.3	P/P	20 - 239
Mevinphos	96.7	75.0	P/P	46 - 124
Molinate	75.1	62.5	P/P	46 - 100
Myclobutanil	107	85.1	P/P	32 - 149
Naled	47.0	35.7	P/P	32 - 95.0
Norflurazon	104	82.1	P/P	57 - 127
Oxadiazon	92.9	79.5	P/P	63 - 118
Oxyfluorfen	117	97.7	P/P	69 - 137
Parathion Ethyl	106	85.4	P/P	70 - 113
Parathion Methyl	113	96.4	P/P	71 - 130
Pendimethalin	101	94.2	P/P	55 - 118
Phorate	94.1	78.7	P/P	46 - 125
Prodiamine	58.3	51.8	P/P	20 - 141
Prometon	103	81.0	P/P	54 - 122
Prometryn	115	93.7	P/P	66 - 124
Pronamide	109	89.7	P/P	79 - 122
Propiconazole	104	82.5	P/P	61 - 126
Pyriproxyfen	97.4	78.8	P/P	52 - 131
Simazine	107	87.8	P/P	75 - 128
Sulfentrazone	48.0	39.7	P/P	20 - 132
Tebuconazole	73.5	44.1	P/P	20 - 116
Terbufos	98.9	86.9	P/P	61 - 117
Terbuthylazine	94.6	80.9	P/P	74 - 116

Reference Method: EPA 8270E

Batch ID: P394044

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	39.4	41.2	P/P	20 - 110
Alpha-BHC	77.7	76.0	P/P	58 - 130
Alpha-Chlordane	84.1	84.8	P/P	61 - 105
Beta-BHC	89.9	88.8	P/P	53 - 164
Beta-Cyfluthrin	89.1	86.0	P/P	40 - 140
Bifenthrin	99.7	98.6	P/P	44 - 122
Chlorothalonil	67.5	74.7	P/P	20 - 201
Cis-Nonachlor	89.6	88.0	P/P	60 - 110
Cypermethrin	114	112	P/P	43 - 131
Dacthal	92.4	90.4	P/P	76 - 108

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P394044

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
DDD-p,p'	89.0	87.9	P/P	68 - 118
DDE-p,p'	78.7	78.6	P/P	56 - 107
DDT-p,p'	92.2	90.1	P/P	55 - 122
Delta-BHC	93.5	90.5	P/P	60 - 181
Deltamethrin	113	108	P/P	51 - 139
Dichlobenil	49.2	50.5	P/P	20 - 106
Dicofol	110	106	P/P	56 - 130
Dieldrin	77.8	77.2	P/P	58 - 112
Endosulfan I	96.3	91.0	P/P	68 - 115
Endosulfan II	112	101	P/P	69 - 133
Endosulfan Sulfate	91.8	86.0	P/P	65 - 126
Endrin	96.6	97.8	P/P	66 - 118
Endrin Aldehyde	90.5	96.6	P/P	60 - 132
Endrin Ketone	98.8	93.4	P/P	68 - 121
Esfenvalerate	95.6	96.1	P/P	42 - 116
Ethalfuralin	77.6	78.7	P/P	50 - 118
Fenpropathrin	130	129	P/P	55 - 132
Gamma-BHC	88.5	88.4	P/P	65 - 147
Gamma-Chlordane	87.1	86.1	P/P	56 - 103
Heptachlor	75.4	75.5	P/P	47 - 95.0
Heptachlor Epoxide	89.8	87.6	P/P	67 - 107
Hexachlorobenzene	71.5	70.3	P/P	45 - 99.0
Kepone	102	99.6	P/P	28 - 128
Lambda-Cyhalothrin	97.4	99.9	P/P	41 - 135
Methoxychlor	101	98.0	P/P	61 - 138
MGK-264	54.2	53.9	P/P	20 - 109
Mirex	79.3	79.2	P/P	36 - 92.0
Permethrin	80.5	81.2	P/P	45 - 111
Phenothrin	57.2	57.4	P/P	22 - 88.0
Piperonyl Butoxide	97.1	103	P/P	67 - 120
Prallethrin	52.6	52.2	P/P	28 - 92.0
Tau-Fluvalinate	102	104	P/P	38 - 145
Tetramethrin	124	114	P/P	29 - 150
Trans-Nonachlor	85.4	83.1	P/P	54 - 105
Triclosan Methyl	93.4	93.4	P/P	76 - 115
Trifluralin	79.6	78.0	P/P	53 - 111

Reference Method: EPA 8276
Batch ID: P394044

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	105	108	P/P	56 - 117
Toxaphene	119	119	F/F	45 - 116

Reference Method: EPA 8321B
Batch ID: P394025

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	139		P	30 - 160
2,4,5-T	107		P	30 - 160
Acetaminophen	104		P	30 - 160
Acetamiprid	112		P	30 - 160

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P394025

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Afidopyropen	75.2		P	30 - 160
Bentazon	89.0		P	30 - 160
Benzovindiflupyr	91.0		P	30 - 160
Carbamazepine	113		P	30 - 160
Clothianidin	116		P	30 - 160
Dinotefuran	109		P	30 - 160
Diuron	67.3		P	30 - 160
Fenuron	112		P	30 - 160
Fluridone	94.7		P	30 - 160
Hydrocodone	117		P	30 - 160
Ibuprofen	108		P	30 - 160
Imazapyr	149		P	30 - 160
Imidacloprid	126		P	30 - 160
Linuron	85.4		P	30 - 160
Mandestrobin	97.3		P	30 - 160
MCPP	123		P	30 - 160
Naproxen	49.4		P	30 - 160
Primidone	122		P	30 - 160
Pyraclostrobin	77.6		P	30 - 160
Thiamethoxam	123		P	30 - 160
Tolfenpyrad	50.5		P	30 - 160
Triclopyr	105		P	30 - 160

Reference Method: EPA 8321B

Batch ID: P394077

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	95.2		P	40 - 150
AMPA	87.1		P	40 - 150
Endothall	93.7		P	40 - 150
Glufosinate	109		P	40 - 150
Glyphosate	82.4		P	40 - 140
Sucralose	111		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P394079

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	79.9		P	30 - 160
Aldicarb	70.4		P	30 - 160
Aldicarb Sulfone	102		P	30 - 160
Aldicarb Sulfoxide	111		P	30 - 160
Carbaryl	68.7		P	30 - 160
Carbofuran	70.2		P	30 - 160
Methiocarb	63.4		P	30 - 160
Methomyl	85.6		P	30 - 160
Oxamyl	97.8		P	30 - 160
Propoxur	69.9		P	30 - 160

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2120 B-2011
Batch ID: P394122

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.3		P	85 - 115

Reference Method: SM 2320 B-2011
Batch ID: P394419

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	94.7		P	93 - 104

Reference Method: SM 4500 F-C-2011
Batch ID: P394357

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.6		P	90 - 106

Reference Method: SM 5310 B-2011
Batch ID: P394646

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.3		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P394173

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2226395	Barium	108		P	80 - 120
2226395	Calcium	110		P	80 - 120
2226395	Iron	107		P	80 - 120
2226395	Magnesium	103		P	80 - 120
2226395	Manganese	106		P	80 - 120
2226395	Potassium	105		P	80 - 120
2226395	Sodium	109		P	80 - 120
2226395	Zinc	107		P	80 - 120
2226817	Barium	102	103	P/P	80 - 120
2226817	Calcium	104		P	80 - 120
2226817	Iron	103	106	P/P	80 - 120
2226817	Magnesium	96.4		P	80 - 120
2226817	Manganese	102	103	P/P	80 - 120
2226817	Potassium	104	107	P/P	80 - 120
2226817	Sodium	103	107	P/P	80 - 120
2226817	Zinc	113	113	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P394173

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2226395	Aluminum	104		P	80 - 120
2226395	Antimony	98.2		P	80 - 120
2226395	Arsenic	98.6		P	80 - 120
2226395	Beryllium	92.4		P	80 - 120
2226395	Boron	101		P	80 - 120
2226395	Cadmium	96.3		P	80 - 120
2226395	Chromium	95.8		P	80 - 120
2226395	Copper	97.4		P	80 - 120
2226395	Lead	105		P	80 - 120
2226395	Nickel	96.7		P	80 - 120
2226395	Selenium	95.1		P	80 - 120
2226395	Silver	104		P	80 - 120
2226395	Thallium	105		P	80 - 120
2226817	Aluminum	97.5	98.3	P/P	80 - 120
2226817	Antimony	98.4	99.2	P/P	80 - 120
2226817	Arsenic	97.1	97.7	P/P	80 - 120
2226817	Beryllium	90.9	98.3	P/P	80 - 120
2226817	Boron	98.1	99.5	P/P	80 - 120
2226817	Cadmium	94.3	96.9	P/P	80 - 120
2226817	Chromium	94.8	95.8	P/P	80 - 120
2226817	Copper	90.4	91.9	P/P	80 - 120
2226817	Lead	102	103	P/P	80 - 120
2226817	Nickel	93.3	93.7	P/P	80 - 120
2226817	Selenium	96.3	97.4	P/P	80 - 120
2226817	Silver	103	103	P/P	80 - 120
2226817	Thallium	102	104	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P394241

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P394241

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2226363	Chloride	102		P	90 - 110
2226434	Chloride	103		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P394243

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2226363	Sulfate	100		P	90 - 110
2226434	Sulfate	107		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P394335

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2226337	Bromide	95.5	93.9	P/P	90 - 110
2226988	Bromide	95.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P394299

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2226370	Ammonia-N	98.6	99.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P394203

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2226369	Kjeldahl Nitrogen	98.9	93.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P394133

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2226338	NO2NO3-N	96.5	96.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P394153

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2226338	Total-P	102	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P394102

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2226339	O-Phosphate-P	95.7	96.5	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P393999

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2225916	Acetochlor	96.1	89.1	P/P	66 - 122

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P393999

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2225916	Alachlor	104	94.4	P/P	65 - 122
2225916	Ametryn	110	117	P/P	45 - 173
2225916	Atrazine	109	97.3	P/P	70 - 134
2225916	Atrazine Desethyl	80.7	83.7	P/P	25 - 150
2225916	Azinphos Methyl	131	117	P/P	44 - 174
2225916	Azoxystrobin	110	89.6	P/P	10 - 268
2225916	Bromacil	100	96.1	P/P	31 - 145
2225916	Butylate	56.9	51.8	P/P	15 - 97.0
2225916	Caffeine	104	92.5	P/P	70 - 130
2225916	Carbophenothion	77.5	78.8	P/P	42 - 129
2225916	Carfentrazone Ethyl	107	95.1	P/P	62 - 145
2225916	Chlorpyrifos Ethyl	80.3	81.3	P/P	60 - 124
2225916	Chlorpyrifos Methyl	92.4	88.4	P/P	66 - 119
2225916	Cyanazine	152	150	P/P	17 - 225
2225916	Demeton	77.0	73.6	P/P	36 - 142
2225916	Diazinon	108	101	P/P	70 - 128
2225916	Difenoconazole	135	113	P/P	33 - 222
2225916	Dimethenamid	96.1	83.8	P/P	54 - 125
2225916	Disulfoton	91.8	91.6	P/P	49 - 133
2225916	Dithiopyr	92.3	89.8	P/P	55 - 123
2225916	EPTC	55.0	46.5	P/P	19 - 91.0
2225916	Ethion	55.5	43.4	P/P	13 - 143
2225916	Ethoprop	101	98.6	P/P	49 - 144
2225916	Fenamiphos	85.2	83.3	P/P	32 - 136
2225916	Fenbuconazole	115	102	P/P	73 - 148
2225916	Fipronil	112	104	P/P	57 - 129
2225916	Fipronil Desulfinyl	98.3	90.3	P/P	49 - 127
2225916	Fipronil Sulfide	85.5	85.5	P/P	44 - 127
2225916	Fipronil Sulfone	75.3	73.6	P/P	35 - 126
2225916	Fluazifop-P-butyl	92.5	90.4	P/P	67 - 129
2225916	Fludioxonil	105	86.9	P/P	61 - 126
2225916	Flumioxazin	156	134	P/P	38 - 279
2225916	Flutolanil	103	93.4	P/P	55 - 136
2225916	Fluxapyroxad	81.7	69.4	P/P	33 - 140
2225916	Fonofos	96.2	92.5	P/P	58 - 125
2225916	Hexazinone	97.8	88.6	P/P	57 - 148
2225916	Imazalil	94.2	102	P/P	10 - 221
2225916	Iprodione	86.7	77.8	P/P	32 - 140
2225916	Malathion	95.6	92.2	P/P	52 - 138
2225916	Metalaxyl	98.5	91.3	P/P	46 - 134
2225916	Metolachlor	98.5	87.3	P/P	58 - 122
2225916	Metribuzin	89.8	103	P/P	16 - 272
2225916	Mevinphos	92.4	87.2	P/P	45 - 140
2225916	Molinate	69.7	65.3	P/P	41 - 103
2225916	Myclobutanil	102	91.7	P/P	60 - 134
2225916	Naled	41.6	35.8	P/P	20 - 113
2225916	Norflurazon	96.6	88.8	P/P	51 - 123
2225916	Oxadiazon	89.7	84.1	P/P	44 - 125
2225916	Oxyfluorfen	113	104	P/P	66 - 176
2225916	Parathion Ethyl	99.9	93.5	P/P	57 - 132
2225916	Parathion Methyl	106	100	P/P	59 - 156
2225916	Pendimethalin	100	102	P/P	59 - 129

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P393999

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2225916	Phorate	90.3	85.1	P/P	47 - 136
2225916	Prodiamine	77.3	94.7	P/P	10 - 159
2225916	Prometon	102	101	P/P	59 - 127
2225916	Prometryn	108	105	P/P	59 - 129
2225916	Pronamide	103	100	P/P	65 - 145
2225916	Propiconazole	110	97.1	P/P	28 - 165
2225916	Pyriproxyfen	98.0	82.0	P/P	21 - 180
2225916	Simazine	104	107	P/P	63 - 147
2225916	Sulfentrazone	91.4	87.7	P/P	32 - 136
2225916	Tebuconazole	67.1	53.3	P/P	10 - 117
2225916	Terbufos	99.0	94.3	P/P	61 - 131
2225916	Terbuthylazine	95.1	82.5	P/P	62 - 126

Reference Method: EPA 8270E

Batch ID: P394044

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2226034	Alpha-BHC	86.4	93.5	P/P	53 - 147
2226034	Alpha-Chlordane	85.2	98.9	P/P	56 - 107
2226034	Beta-BHC	80.3	87.2	P/P	43 - 182
2226034	Beta-Cyfluthrin	93.7	106	P/P	42 - 157
2226034	Bifenthrin	101	120	P/P	52 - 124
2226034	Chlorothalonil	64.5	65.9	P/P	10 - 265
2226034	Cis-Nonachlor	86.6	100	P/P	55 - 112
2226034	Cypermethrin	116	140	P/P	46 - 144
2226034	Dacthal	81.6	93.0	P/P	72 - 110
2226034	DDD-p,p'	78.1	89.9	P/P	58 - 123
2226034	DDE-p,p'	74.9	84.1	P/P	52 - 106
2226034	DDT-p,p'	87.7	95.1	P/P	50 - 127
2226034	Delta-BHC	85.8	95.1	P/P	56 - 222
2226034	Deltamethrin	116	136	P/P	47 - 152
2226034	Dichlobenil	29.6	35.2	P/P	22 - 99.0
2226034	Dicofol	89.1	99.1	P/P	38 - 145
2226034	Endosulfan I	86.8	100	P/P	64 - 124
2226034	Endosulfan II	98.6	113	P/P	52 - 159
2226034	Endosulfan Sulfate	84.8	104	P/P	62 - 136
2226034	Endrin	97.8	108	P/P	57 - 126
2226034	Endrin Aldehyde	111	114	P/P	41 - 128
2226034	Endrin Ketone	89.7	108	P/P	67 - 129
2226034	Esfenvalerate	98.2	113	P/P	50 - 120
2226034	Ethalfuralin	79.2	85.6	P/P	41 - 125
2226034	Fenpropathrin	480	491	F/F	40 - 202
2226034	Gamma-BHC	91.7	98.0	P/P	58 - 180
2226034	Gamma-Chlordane	84.1	101	P/P	54 - 103
2226034	Heptachlor	80.8	93.1	P/P	46 - 94.0
2226034	Heptachlor Epoxide	84.8	98.8	P/P	62 - 111
2226034	Hexachlorobenzene	79.5	91.7	P/P	42 - 95.0
2226034	Lambda-Cyhalothrin	105	134	P/P	37 - 162
2226034	Methoxychlor	97.8	106	P/P	52 - 143
2226034	MGK-264	63.5	72.3	P/P	37 - 102
2226034	Mirex	86.5	106	P/F	43 - 91.0
2226034	Permethrin	82.1	101	P/P	48 - 113

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P394044

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2226034	Phenothrin	71.8	88.1	P/P	30 - 104
2226034	Piperonyl Butoxide	83.6	102	P/P	67 - 127
2226034	Prallethrin	59.1	68.2	P/P	28 - 102
2226034	Tau-Fluvalinate	115	134	P/P	46 - 174
2226034	Tetramethrin	125	156	P/P	28 - 176
2226034	Trans-Nonachlor	82.3	97.2	P/P	51 - 103
2226034	Triclosan Methyl	78.4	87.9	P/P	67 - 116
2226034	Trifluralin	77.4	87.7	P/P	47 - 118
2226153	Aldrin	75.8	79.1	P/P	22 - 127
2226153	Dieldrin	79.3	78.8	P/P	52 - 123
2226153	Kepone	82.8	81.2	P/P	18 - 138

Reference Method: EPA 8276

Batch ID: P394044

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2226153	Chlordane	117	119	P/P	47 - 128
2226153	Toxaphene	149	155	P/P	11 - 163

Reference Method: EPA 8321B

Batch ID: P394025

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2225913	2,4-D	105	105	P/P	30 - 160
2225913	2,4,5-T	73.8	92.6	P/P	30 - 160
2225913	Acetaminophen	146	101	P/P	30 - 160
2225913	Acetamiprid	86.8	86.9	P/P	30 - 160
2225913	Afidopyropen	56.5	63.6	P/P	30 - 160
2225913	Bentazon	29.0	32.7	F/P	30 - 160
2225913	Benzovindiflupyr	68.7	66.5	P/P	30 - 160
2225913	Carbamazepine	79.2	81.0	P/P	30 - 160
2225913	Clothianidin	99.4	99.9	P/P	30 - 160
2225913	Dinotefuran	118	123	P/P	30 - 160
2225913	Diuron	46.0	46.6	P/P	30 - 160
2225913	Fenuron	67.5	73.3	P/P	30 - 160
2225913	Fluridone	60.9	64.4	P/P	30 - 160
2225913	Hydrocodone	106	116	P/P	30 - 160
2225913	Ibuprofen	79.2	74.1	P/P	30 - 160
2225913	Imazapyr	101	96.0	P/P	30 - 160
2225913	Imidacloprid	138	146	P/P	30 - 160
2225913	Linuron	63.2	66.5	P/P	30 - 160
2225913	Mandestrobin	75.9	75.7	P/P	30 - 160
2225913	MCPP	87.4	91.1	P/P	30 - 160
2225913	Naproxen	55.5	80.8	P/P	30 - 160
2225913	Primidone	90.6	105	P/P	30 - 160
2225913	Pyraclostrobin	67.5	65.1	P/P	30 - 160
2225913	Thiamethoxam	137	143	P/P	30 - 160
2225913	Tolfenpyrad	54.7	42.7	P/P	30 - 160
2225913	Triclopyr	78.7	89.3	P/P	30 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P394077

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2226151	Acesulfame K	17.1	17.8	F/F	40 - 150
2226151	AMPA	104	102	P/P	40 - 150
2226151	Endothall	97.1	97.8	P/P	40 - 150
2226151	Glufosinate	106	102	P/P	40 - 150
2226151	Glyphosate	62.9	90.5	P/P	40 - 140
2226151	Sucralose	94.6	91.1	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P394079

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2225912	3-Hydroxycarbofuran	102	91.4	P/P	30 - 160
2225912	Aldicarb	76.0	61.9	P/P	30 - 160
2225912	Aldicarb Sulfone	119	110	P/P	30 - 160
2225912	Aldicarb Sulfoxide	41.0	43.8	P/P	30 - 160
2225912	Carbaryl	57.8	51.0	P/P	30 - 160
2225912	Carbofuran	54.3	51.8	P/P	30 - 160
2225912	Methiocarb	68.0	58.7	P/P	30 - 160
2225912	Methomyl	85.3	72.8	P/P	30 - 160
2225912	Oxamyl	97.0	92.2	P/P	30 - 160
2225912	Propoxur	55.9	54.9	P/P	30 - 160

Reference Method: SM 4500 F-C-2011
Batch ID: P394357

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2226434	Fluoride	101	102	P/P	94 - 107

Reference Method: SM 5310 B-2011
Batch ID: P394646

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2226372	Organic Carbon	95.6	96.4	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P394118

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226363	Turbidity	1.95	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P394173

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226817	Barium	1.05	Spike	P	0 - 20
2226817	Calcium	1.25	Spike	P	0 - 20
2226817	Iron	2.07	Spike	P	0 - 20
2226817	Magnesium	2.72	Spike	P	0 - 20
2226817	Manganese	1.39	Spike	P	0 - 20
2226817	Potassium	2.42	Spike	P	0 - 20
2226817	Sodium	2.40	Spike	P	0 - 20
2226817	Zinc	0.122	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P394173

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226817	Aluminum	0.877	Spike	P	0 - 20
2226817	Antimony	0.893	Spike	P	0 - 20
2226817	Arsenic	0.594	Spike	P	0 - 20
2226817	Beryllium	7.54	Spike	P	0 - 20
2226817	Boron	1.34	Spike	P	0 - 20
2226817	Cadmium	2.70	Spike	P	0 - 20
2226817	Chromium	1.05	Spike	P	0 - 20
2226817	Copper	1.26	Spike	P	0 - 20
2226817	Lead	0.758	Spike	P	0 - 20
2226817	Nickel	0.379	Spike	P	0 - 20
2226817	Selenium	1.18	Spike	P	0 - 20
2226817	Silver	0.317	Spike	P	0 - 20
2226817	Thallium	1.55	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P394241

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226434	Chloride	2.07	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P394243

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226434	Sulfate	2.38	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P394335

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226337	Bromide	1.65	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P394299

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226370	Ammonia-N	0.293	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P394203

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226369	Kjeldahl Nitrogen	4.15	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P394133

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226338	NO2NO3-N	0.277	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P394153

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226338	Total-P	0.358	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P394102

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226339	O-Phosphate-P	0.663	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P393999

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2225916	Acetochlor	7.54	Spike	P	0 - 30
2225916	Alachlor	9.66	Spike	P	0 - 30
2225916	Ametryn	5.51	Spike	P	0 - 30
2225916	Atrazine	6.34	Spike	P	0 - 30
2225916	Atrazine Desethyl	3.06	Spike	P	0 - 30
2225916	Azinphos Methyl	11.2	Spike	P	0 - 30
2225916	Azoxystrobin	20.7	Spike	P	0 - 30
2225916	Bromacil	3.89	Spike	P	0 - 30
2225916	Butylate	9.44	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P393999

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2225916	Caffeine	10.2	Spike	P	0 - 30
2225916	Carbophenothion	1.72	Spike	P	0 - 30
2225916	Carfentrazone Ethyl	11.8	Spike	P	0 - 30
2225916	Chlorpyrifos Ethyl	1.31	Spike	P	0 - 30
2225916	Chlorpyrifos Methyl	4.36	Spike	P	0 - 30
2225916	Cyanazine	1.37	Spike	P	0 - 30
2225916	Demeton	4.56	Spike	P	0 - 30
2225916	Diazinon	6.28	Spike	P	0 - 30
2225916	Difenoconazole	17.0	Spike	P	0 - 30
2225916	Dimethenamid	13.7	Spike	P	0 - 30
2225916	Disulfoton	0.245	Spike	P	0 - 30
2225916	Dithiopyr	2.79	Spike	P	0 - 30
2225916	EPTC	16.8	Spike	P	0 - 30
2225916	Ethion	24.4	Spike	P	0 - 30
2225916	Ethoprop	2.24	Spike	P	0 - 30
2225916	Fenamiphos	2.21	Spike	P	0 - 30
2225916	Fenbuconazole	11.3	Spike	P	0 - 30
2225916	Fipronil	7.90	Spike	P	0 - 30
2225916	Fipronil Desulfanyl	8.44	Spike	P	0 - 30
2225916	Fipronil Sulfide	0.0278	Spike	P	0 - 30
2225916	Fipronil Sulfone	1.95	Spike	P	0 - 30
2225916	Fluazifop-P-butyl	2.28	Spike	P	0 - 30
2225916	Fludioxonil	19.0	Spike	P	0 - 30
2225916	Flumioxazin	14.7	Spike	P	0 - 30
2225916	Flutolanil	9.62	Spike	P	0 - 30
2225916	Fluxapyroxad	16.3	Spike	P	0 - 30
2225916	Fonofos	3.88	Spike	P	0 - 30
2225916	Hexazinone	9.78	Spike	P	0 - 30
2225916	Imazalil	7.86	Spike	P	0 - 30
2225916	Iprodione	10.8	Spike	P	0 - 30
2225916	Malathion	3.67	Spike	P	0 - 30
2225916	Metalaxyl	7.66	Spike	P	0 - 30
2225916	Metolachlor	12.1	Spike	P	0 - 30
2225916	Metribuzin	14.1	Spike	P	0 - 30
2225916	Mevinphos	5.75	Spike	P	0 - 30
2225916	Molinate	6.54	Spike	P	0 - 30
2225916	Myclobutanil	11.1	Spike	P	0 - 30
2225916	Naled	15.0	Spike	P	0 - 30
2225916	Norflurazon	8.37	Spike	P	0 - 30
2225916	Oxadiazon	6.43	Spike	P	0 - 30
2225916	Oxyfluorfen	7.61	Spike	P	0 - 30
2225916	Parathion Ethyl	6.60	Spike	P	0 - 30
2225916	Parathion Methyl	5.86	Spike	P	0 - 30
2225916	Pendimethalin	1.47	Spike	P	0 - 30
2225916	Phorate	5.91	Spike	P	0 - 30
2225916	Prodiamine	20.3	Spike	P	0 - 30
2225916	Prometon	0.919	Spike	P	0 - 30
2225916	Prometryn	3.18	Spike	P	0 - 30
2225916	Pronamide	2.90	Spike	P	0 - 30
2225916	Propiconazole	12.3	Spike	P	0 - 30
2225916	Pyriproxyfen	17.8	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P393999

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2225916	Simazine	2.19	Spike	P	0 - 30
2225916	Sulfentrazone	3.68	Spike	P	0 - 30
2225916	Tebuconazole	23.0	Spike	P	0 - 30
2225916	Terbufos	4.90	Spike	P	0 - 30
2225916	Terbutylazine	14.2	Spike	P	0 - 30
LFB	Acetochlor	17.1	LCS	P	0 - 30
LFB	Alachlor	12.5	LCS	P	0 - 30
LFB	Ametryn	15.2	LCS	P	0 - 30
LFB	Atrazine	15.1	LCS	P	0 - 30
LFB	Atrazine Desethyl	17.7	LCS	P	0 - 30
LFB	Azinphos Methyl	23.0	LCS	P	0 - 30
LFB	Azoxystrobin	86.0	LCS	F	0 - 30
LFB	Bromacil	25.1	LCS	P	0 - 30
LFB	Butylate	9.23	LCS	P	0 - 30
LFB	Caffeine	9.61	LCS	P	0 - 30
LFB	Carbophenothion	8.69	LCS	P	0 - 30
LFB	Carfentrazone Ethyl	15.3	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	15.0	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	14.6	LCS	P	0 - 30
LFB	Cyanazine	6.46	LCS	P	0 - 30
LFB	Demeton	15.5	LCS	P	0 - 30
LFB	Diazinon	16.4	LCS	P	0 - 30
LFB	Difenoconazole	51.8	LCS	F	0 - 30
LFB	Dimethenamid	20.2	LCS	P	0 - 30
LFB	Disulfoton	10.9	LCS	P	0 - 30
LFB	Dithiopyr	16.7	LCS	P	0 - 30
LFB	EPTC	14.0	LCS	P	0 - 30
LFB	Ethion	40.3	LCS	F	0 - 30
LFB	Ethoprop	18.7	LCS	P	0 - 30
LFB	Fenamiphos	26.0	LCS	P	0 - 30
LFB	Fenbuconazole	22.7	LCS	P	0 - 30
LFB	Fipronil	19.6	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	19.5	LCS	P	0 - 30
LFB	Fipronil Sulfide	23.5	LCS	P	0 - 30
LFB	Fipronil Sulfone	19.3	LCS	P	0 - 30
LFB	Fluazifop-P-butyl	10.7	LCS	P	0 - 30
LFB	Fludioxonil	27.8	LCS	P	0 - 30
LFB	Flumioxazin	48.3	LCS	F	0 - 30
LFB	Flutolanil	27.5	LCS	P	0 - 30
LFB	Fluxapyroxad	22.5	LCS	P	0 - 30
LFB	Fonofos	18.5	LCS	P	0 - 30
LFB	Hexazinone	19.2	LCS	P	0 - 30
LFB	Imazalil	22.6	LCS	P	0 - 30
LFB	Iprodione	27.2	LCS	P	0 - 30
LFB	Malathion	21.4	LCS	P	0 - 30
LFB	Metalaxyl	16.8	LCS	P	0 - 30
LFB	Metolachlor	19.5	LCS	P	0 - 30
LFB	Metribuzin	20.3	LCS	P	0 - 30
LFB	Mevinphos	25.3	LCS	P	0 - 30
LFB	Molinate	18.4	LCS	P	0 - 30
LFB	Myclobutanil	22.5	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P393999

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Naled	27.3	LCS	P	0 - 30
LFB	Norflurazon	23.3	LCS	P	0 - 30
LFB	Oxadiazon	15.6	LCS	P	0 - 30
LFB	Oxyfluorfen	18.1	LCS	P	0 - 30
LFB	Parathion Ethyl	21.7	LCS	P	0 - 30
LFB	Parathion Methyl	15.6	LCS	P	0 - 30
LFB	Pendimethalin	6.63	LCS	P	0 - 30
LFB	Phorate	17.8	LCS	P	0 - 30
LFB	Prodiamine	11.8	LCS	P	0 - 30
LFB	Prometon	24.0	LCS	P	0 - 30
LFB	Prometryn	20.8	LCS	P	0 - 30
LFB	Pronamide	19.4	LCS	P	0 - 30
LFB	Propiconazole	22.6	LCS	P	0 - 30
LFB	Pyriproxyfen	21.1	LCS	P	0 - 30
LFB	Simazine	19.7	LCS	P	0 - 30
LFB	Sulfentrazone	18.9	LCS	P	0 - 30
LFB	Tebuconazole	50.0	LCS	F	0 - 30
LFB	Terbufos	12.9	LCS	P	0 - 30
LFB	Terbutylazine	15.6	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P394044

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226034	Alpha-BHC	7.90	Spike	P	0 - 30
2226034	Alpha-Chlordane	14.8	Spike	P	0 - 30
2226034	Beta-BHC	8.25	Spike	P	0 - 30
2226034	Beta-Cyfluthrin	12.7	Spike	P	0 - 30
2226034	Bifenthrin	17.7	Spike	P	0 - 30
2226034	Chlorothalonil	2.19	Spike	P	0 - 30
2226034	Cis-Nonachlor	14.8	Spike	P	0 - 30
2226034	Cypermethrin	19.4	Spike	P	0 - 30
2226034	Dacthal	13.1	Spike	P	0 - 30
2226034	DDD-p,p'	14.0	Spike	P	0 - 30
2226034	DDE-p,p'	11.6	Spike	P	0 - 30
2226034	DDT-p,p'	8.06	Spike	P	0 - 30
2226034	Delta-BHC	10.3	Spike	P	0 - 30
2226034	Deltamethrin	15.8	Spike	P	0 - 30
2226034	Dichlobenil	17.2	Spike	P	0 - 30
2226034	Dicofol	10.7	Spike	P	0 - 30
2226034	Endosulfan I	14.1	Spike	P	0 - 30
2226034	Endosulfan II	13.8	Spike	P	0 - 30
2226034	Endosulfan Sulfate	20.1	Spike	P	0 - 30
2226034	Endrin	10.3	Spike	P	0 - 30
2226034	Endrin Aldehyde	2.64	Spike	P	0 - 30
2226034	Endrin Ketone	18.7	Spike	P	0 - 30
2226034	Esfenvalerate	13.9	Spike	P	0 - 30
2226034	Ethalfuralin	7.77	Spike	P	0 - 30
2226034	Fenpropathrin	2.33	Spike	P	0 - 30
2226034	Gamma-BHC	6.65	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P394044

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226034	Gamma-Chlordane	17.9	Spike	P	0 - 30
2226034	Heptachlor	14.2	Spike	P	0 - 30
2226034	Heptachlor Epoxide	15.2	Spike	P	0 - 30
2226034	Hexachlorobenzene	14.2	Spike	P	0 - 30
2226034	Lambda-Cyhalothrin	24.6	Spike	P	0 - 30
2226034	Methoxychlor	8.41	Spike	P	0 - 30
2226034	MGK-264	12.9	Spike	P	0 - 30
2226034	Mirex	20.6	Spike	P	0 - 30
2226034	Permethrin	20.5	Spike	P	0 - 30
2226034	Phenothrin	20.4	Spike	P	0 - 30
2226034	Piperonyl Butoxide	19.6	Spike	P	0 - 30
2226034	Prallethrin	14.2	Spike	P	0 - 30
2226034	Tau-Fluvalinate	15.1	Spike	P	0 - 30
2226034	Tetramethrin	22.1	Spike	P	0 - 30
2226034	Trans-Nonachlor	16.6	Spike	P	0 - 30
2226034	Triclosan Methyl	11.4	Spike	P	0 - 30
2226034	Trifluralin	12.5	Spike	P	0 - 30
2226153	Aldrin	4.21	Spike	P	0 - 30
2226153	Dieldrin	0.638	Spike	P	0 - 30
2226153	Kepone	1.98	Spike	P	0 - 30
LFB	Aldrin	4.50	LCS	P	0 - 30
LFB	Alpha-BHC	2.26	LCS	P	0 - 30
LFB	Alpha-Chlordane	0.822	LCS	P	0 - 30
LFB	Beta-BHC	1.26	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	3.54	LCS	P	0 - 30
LFB	Bifenthrin	1.13	LCS	P	0 - 30
LFB	Chlorothalonil	10.2	LCS	P	0 - 30
LFB	Cis-Nonachlor	1.89	LCS	P	0 - 30
LFB	Cypermethrin	1.94	LCS	P	0 - 30
LFB	Dacthal	2.18	LCS	P	0 - 30
LFB	DDD-p,p'	1.31	LCS	P	0 - 30
LFB	DDE-p,p'	0.207	LCS	P	0 - 30
LFB	DDT-p,p'	2.30	LCS	P	0 - 30
LFB	Delta-BHC	3.21	LCS	P	0 - 30
LFB	Deltamethrin	4.39	LCS	P	0 - 30
LFB	Dichlobenil	2.69	LCS	P	0 - 30
LFB	Dicofol	4.04	LCS	P	0 - 30
LFB	Dieldrin	0.717	LCS	P	0 - 30
LFB	Endosulfan I	5.62	LCS	P	0 - 30
LFB	Endosulfan II	9.72	LCS	P	0 - 30
LFB	Endosulfan Sulfate	6.53	LCS	P	0 - 30
LFB	Endrin	1.23	LCS	P	0 - 30
LFB	Endrin Aldehyde	6.46	LCS	P	0 - 30
LFB	Endrin Ketone	5.56	LCS	P	0 - 30
LFB	Esfenvalerate	0.533	LCS	P	0 - 30
LFB	Ethalfuralin	1.47	LCS	P	0 - 30
LFB	Fenpropathrin	1.12	LCS	P	0 - 30
LFB	Gamma-BHC	0.0499	LCS	P	0 - 30
LFB	Gamma-Chlordane	1.21	LCS	P	0 - 30
LFB	Heptachlor	0.0744	LCS	P	0 - 30
LFB	Heptachlor Epoxide	2.49	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P394044

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Hexachlorobenzene	1.73	LCS	P	0 - 30
LFB	Kepone	2.56	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	2.57	LCS	P	0 - 30
LFB	Methoxychlor	2.83	LCS	P	0 - 30
LFB	MGK-264	0.451	LCS	P	0 - 30
LFB	Mirex	0.108	LCS	P	0 - 30
LFB	Permethrin	0.786	LCS	P	0 - 30
LFB	Phenothrin	0.292	LCS	P	0 - 30
LFB	Piperonyl Butoxide	5.54	LCS	P	0 - 30
LFB	Prallethrin	0.860	LCS	P	0 - 30
LFB	Tau-Fluvalinate	2.03	LCS	P	0 - 30
LFB	Tetramethrin	8.44	LCS	P	0 - 30
LFB	Trans-Nonachlor	2.70	LCS	P	0 - 30
LFB	Triclosan Methyl	0.0318	LCS	P	0 - 30
LFB	Trifluralin	1.99	LCS	P	0 - 30

Reference Method: EPA 8276

Batch ID: P394044

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226153	Chlordane	1.45	Spike	P	0 - 30
2226153	Toxaphene	4.55	Spike	P	0 - 30
LFB	Chlordane	2.75	LCS	P	0 - 30
LFB	Toxaphene	0.0308	LCS	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P394025

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2225913	2,4-D	0.460	Spike	P	0 - 30
2225913	2,4,5-T	22.6	Spike	P	0 - 30
2225913	Acetaminophen	36.4	Spike	F	0 - 30
2225913	Acetamiprid	0.0174	Spike	P	0 - 30
2225913	Afidopyropen	11.8	Spike	P	0 - 30
2225913	Bentazon	5.74	Spike	P	0 - 30
2225913	Benzovindiflupyr	3.34	Spike	P	0 - 30
2225913	Carbamazepine	2.37	Spike	P	0 - 30
2225913	Clothianidin	0.486	Spike	P	0 - 30
2225913	Dinotefuran	4.58	Spike	P	0 - 30
2225913	Diuron	1.40	Spike	P	0 - 30
2225913	Fenuron	6.03	Spike	P	0 - 30
2225913	Fluridone	5.56	Spike	P	0 - 30
2225913	Hydrocodone	8.94	Spike	P	0 - 30
2225913	Ibuprofen	6.66	Spike	P	0 - 30
2225913	Imazapyr	5.24	Spike	P	0 - 30
2225913	Imidacloprid	5.24	Spike	P	0 - 30
2225913	Linuron	5.15	Spike	P	0 - 30
2225913	Mandestrobin	0.257	Spike	P	0 - 30
2225913	MCP	3.83	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P394025

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2225913	Naproxen	37.2	Spike	F	0 - 30
2225913	Primidone	14.9	Spike	P	0 - 30
2225913	Pyraclostrobin	3.59	Spike	P	0 - 30
2225913	Thiamethoxam	4.11	Spike	P	0 - 30
2225913	Tolfenpyrad	24.7	Spike	P	0 - 30
2225913	Triclopyr	12.5	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P394077

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226151	Acesulfame K	3.46	Spike	P	0 - 30
2226151	AMPA	1.58	Spike	P	0 - 30
2226151	Endothall	0.687	Spike	P	0 - 30
2226151	Glufosinate	4.41	Spike	P	0 - 30
2226151	Glyphosate	29.3	Spike	P	0 - 30
2226151	Sucralose	3.65	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P394079

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2225912	3-Hydroxycarbofuran	10.6	Spike	P	0 - 30
2225912	Aldicarb	20.5	Spike	P	0 - 30
2225912	Aldicarb Sulfone	7.89	Spike	P	0 - 30
2225912	Aldicarb Sulfoxide	6.68	Spike	P	0 - 30
2225912	Carbaryl	12.4	Spike	P	0 - 30
2225912	Carbofuran	4.64	Spike	P	0 - 30
2225912	Methiocarb	14.5	Spike	P	0 - 30
2225912	Methomyl	15.9	Spike	P	0 - 30
2225912	Oxamyl	5.07	Spike	P	0 - 30
2225912	Propoxur	1.82	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P394122

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226364	Color (true)	8.22	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P394419

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226443	Total Alkalinity	2.25	Sample	P	0 - 8.1

Quality Assurance Report Precision

Reference Method: SM 2540 C-2011
Batch ID: P394602

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226414	TDS	0.0	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P394357

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226434	Fluoride	0.953	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011
Batch ID: P394646

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226372	Organic Carbon	0.568	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2226408
Field Sample ID: IFAS_DI

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	63.8	P	30 - 160

Lab Sample ID: 2226409
Field Sample ID: IFAS_DI

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	96.8	P	30 - 160
EPA 8321B	Acetaminophen-d4	87.3	P	30 - 160
EPA 8321B	Carbamazepine-d10	102	P	30 - 160
EPA 8321B	Diuron-d6	86.5	P	30 - 160
EPA 8321B	Endothall-d6	105	P	40 - 160
EPA 8321B	Endothall-d6	105	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	116	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	116	P	40 - 160
EPA 8321B	Ibuprofen-d3	85.6	P	30 - 160
EPA 8321B	Primidone-d5	92.7	P	30 - 160
EPA 8321B	Sucralose-d6	113	P	30 - 160
EPA 8321B	Sucralose-d6	113	P	30 - 160

Lab Sample ID: 2226410
Field Sample ID: IFAS_DI

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	84.5	P	40 - 123
EPA 8270E	Decachlorobiphenyl	95.4	P	47 - 111
EPA 8270E	Tetrachloro-m-xylene	65.7	P	31 - 100
EPA 8270E	Tetrachloro-m-xylene	75.3	P	33 - 102
EPA 8276	Decachlorobiphenyl	62.1	P	29 - 92.0
EPA 8276	PCNB	98.2	P	43 - 134

Lab Sample ID: 2226411
Field Sample ID: IFAS_DI

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	70.5	P	20 - 200
EPA 8270E	Simazine-d10	106	P	73 - 135
EPA 8270E	Terbufos-d10	91.4	P	58 - 130

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A103726

Included Lab Sample IDs: 2226407

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.0	98.9	P/P	90 - 110

Reference Method: SM 2120 B-2011

Run ID: A103729

Included Lab Sample IDs: 2226405

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.7	101	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A103730

Included Lab Sample IDs: 2226405

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	101	102	P/P	95 - 105

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A103734

Included Lab Sample IDs: 2226405

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bromide	97.0	98.2	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A103736

Included Lab Sample IDs: 2226406

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	99.0	99.0	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A103737

Included Lab Sample IDs: 2226405

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.6	101	P/P	90 - 110
Sulfate	98.8	100	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A103740

Included Lab Sample IDs: 2226409

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	118	105	P/P	50 - 150
2,4,5-T	102	96.3	P/P	50 - 150
Acetaminophen	111	112	P/P	60 - 160
Acetamiprid	120	115	P/P	50 - 150
Afidopyropen	89.7	101	P/P	50 - 150
Bentazon	127	116	P/P	50 - 160
Benzovindiflupyr	106	106	P/P	50 - 160
Carbamazepine	110	114	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A103740
Included Lab Sample IDs: 2226409

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Clothianidin	108	105	P/P	60 - 150
Dinotefuran	108	102	P/P	50 - 150
Diuron	106	108	P/P	60 - 160
Fenuron	102	107	P/P	60 - 150
Fluridone	124	120	P/P	60 - 160
Hydrocodone	109	106	P/P	60 - 150
Ibuprofen	99.3	100	P/P	50 - 160
Imazapyr	81.2	80.3	P/P	50 - 160
Imidacloprid	98.6	100	P/P	60 - 150
Linuron	113	112	P/P	60 - 150
Mandestrobin	113	111	P/P	50 - 150
MCPP	104	99.8	P/P	50 - 150
Naproxen	71.5	95.6	P/P	50 - 160
Primidone	107	108	P/P	60 - 150
Pyraclostrobin	96.9	98.4	P/P	60 - 150
Thiamethoxam	105	119	P/P	50 - 150
Tolfenpyrad	114	115	P/P	60 - 150
Triclopyr	111	93.6	P/P	50 - 150

Reference Method: EPA 8321B
Run ID: A103745
Included Lab Sample IDs: 2226409

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	86.9	93.3	P/P	60 - 160
AMPA	91.8	90.3	P/P	60 - 160
Endothall	101	102	P/P	60 - 160
Glufosinate	117	96.0	P/P	60 - 160
Glyphosate	129	116	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A103756
Included Lab Sample IDs: 2226408

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	116	107	P/P	60 - 150
Aldicarb	118	112	P/P	60 - 150
Aldicarb Sulfone	104	117	P/P	50 - 150
Aldicarb Sulfoxide	109	105	P/P	50 - 150
Carbaryl	121	128	P/P	60 - 150
Carbofuran	120	110	P/P	50 - 150
Methiocarb	119	113	P/P	50 - 150
Methomyl	115	109	P/P	50 - 150
Oxamyl	117	98.9	P/P	50 - 150
Propoxur	122	114	P/P	50 - 150

Reference Method: EPA 8270E
Run ID: A103765
Included Lab Sample IDs: 2226411

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

Reference Method: EPA 8270E
Run ID: A103765
Included Lab Sample IDs: 2226411

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	101		P	80 - 120
Alachlor	105		P	80 - 120
Ametryn	113		P	80 - 120
Atrazine	96.4		P	80 - 120
Atrazine Desethyl	92.9		P	80 - 120
Azinphos Methyl	98.8		P	80 - 120
Azoxystrobin	96.3		P	80 - 120
Bromacil	102		P	80 - 120
Butylate	99.0		P	80 - 120
Caffeine	104		P	80 - 120
Carbophenothion	95.2		P	80 - 120
Carfentrazone Ethyl	95.1		P	80 - 120
Chlorpyrifos Ethyl	103		P	80 - 120
Chlorpyrifos Methyl	99.5		P	80 - 120
Cyanazine	94.1		P	80 - 120
Demeton	95.9		P	80 - 120
Diazinon	102		P	80 - 120
Difenoconazole	101		P	80 - 120
Dimethenamid	102		P	80 - 120
Disulfoton	93.7		P	80 - 120
Dithiopyr	98.4		P	80 - 120
EPTC	99.2		P	80 - 120
Ethion	97.1		P	80 - 120
Ethoprop	101		P	80 - 120
Fenamiphos	97.4		P	80 - 120
Fenbuconazole	100		P	80 - 120
Fipronil	101		P	80 - 120
Fipronil Desulfinyl	102		P	80 - 120
Fipronil Sulfide	96.8		P	80 - 120
Fipronil Sulfone	94.9		P	80 - 120
Fluazifop-P-butyl	98.9		P	80 - 120
Fludioxonil	107		P	80 - 120
Flumioxazin	92.5		P	80 - 120
Flutolanil	106		P	80 - 120
Fluxapyroxad	99.4		P	80 - 120
Fonofos	103		P	80 - 120
Hexazinone	93.4		P	80 - 120
Imazalil	102		P	80 - 120
Iprodione	98.1		P	80 - 120
Malathion	100		P	80 - 120
Metaxyl	102		P	80 - 120
Metolachlor	101		P	80 - 120
Metribuzin	105		P	80 - 120
Mevinphos	102		P	80 - 120
Molinate	95.8		P	80 - 120
Myclobutanil	100		P	80 - 120
Naled	116		P	80 - 120
Norflurazon	100		P	80 - 120
Oxadiazon	101		P	80 - 120
Oxyfluorfen	97.4		P	80 - 120
Parathion Ethyl	92.3		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A103765
Included Lab Sample IDs: 2226411

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Parathion Methyl	98.2		P	80 - 120
Pendimethalin	89.4		P	80 - 120
Phorate	98.1		P	80 - 120
Prodiamine	93.6		P	80 - 120
Prometon	100		P	80 - 120
Prometryn	107		P	80 - 120
Pronamide	100		P	80 - 120
Propiconazole	99.9		P	80 - 120
Pyriproxyfen	99.5		P	80 - 120
Simazine	95.6		P	80 - 120
Sulfentrazone	102		P	80 - 120
Tebuconazole	97.7		P	80 - 120
Terbufos	97.6		P	80 - 120
Terbutylazine	97.2		P	80 - 120

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A103767
Included Lab Sample IDs: 2226406

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.2	99.5	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A103784
Included Lab Sample IDs: 2226410

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Alpha-BHC	104		P	80 - 120
Alpha-Chlordane	99.0		P	80 - 120
Beta-BHC	109		P	80 - 120
Beta-Cyfluthrin	93.3		P	80 - 120
Bifenthrin	106		P	80 - 120
Chlorothalonil	106		P	80 - 120
Cis-Nonachlor	101		P	80 - 120
Cypermethrin	110		P	80 - 120
Dacthal	102		P	80 - 120
DDD-p,p'	111		P	80 - 120
DDE-p,p'	107		P	80 - 120
DDT-p,p'	112		P	80 - 120
Delta-BHC	111		P	80 - 120
Deltamethrin	105		P	80 - 120
Dichlobenil	90.4		P	80 - 120
Dicofol	93.2		P	80 - 120
Endosulfan I	96.7		P	80 - 120
Endosulfan II	99.9		P	80 - 120
Endosulfan Sulfate	91.7		P	80 - 120
Endrin	103		P	80 - 120
Endrin Aldehyde	98.6		P	80 - 120
Endrin Ketone	91.2		P	80 - 120
Esfenvalerate	98.7		P	80 - 120
Ethalfuralin	99.0		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A103784
Included Lab Sample IDs: 2226410

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fenpropathrin	97.1		P	80 - 120
Gamma-BHC	108		P	80 - 120
Gamma-Chlordane	97.8		P	80 - 120
Heptachlor	93.8		P	80 - 120
Heptachlor Epoxide	96.3		P	80 - 120
Hexachlorobenzene	102		P	80 - 120
Lambda-Cyhalothrin	98.0		P	80 - 120
Methoxychlor	107		P	80 - 120
MGK-264	104		P	80 - 120
Mirex	92.5		P	80 - 120
Permethrin	89.8		P	80 - 120
Phenothrin	91.3		P	80 - 120
Piperonyl Butoxide	106		P	80 - 120
Prallethrin	93.3		P	80 - 120
Tau-Fluvalinate	112		P	80 - 120
Tetramethrin	107		P	80 - 120
Trans-Nonachlor	98.3		P	80 - 120
Triclosan Methyl	106		P	80 - 120
Trifluralin	96.8		P	80 - 120

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A103798
Included Lab Sample IDs: 2226406

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	93.2	97.0	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A103809
Included Lab Sample IDs: 2226406

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	98.7	P/P	90 - 110

Reference Method: EPA 8276
Run ID: A103814
Included Lab Sample IDs: 2226410

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	98.9		P	80 - 120
Toxaphene	102		P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A103829
Included Lab Sample IDs: 2226412

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	97.4	106	P/P	90 - 110
Calcium	97.8	103	P/P	90 - 110
Iron	95.5	101	P/P	90 - 110
Magnesium	94.1	99.3	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A103829

Included Lab Sample IDs: 2226412

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Manganese	97.0	104	P/P	90 - 110
Potassium	95.7	100	P/P	90 - 110
Sodium	97.3	102	P/P	90 - 110
Zinc	92.9	99.2	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A103840

Included Lab Sample IDs: 2226405

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	101	101	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A103855

Included Lab Sample IDs: 2226405

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	93.5	90.7	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A103905

Included Lab Sample IDs: 2226410

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	99.2		P	80 - 120
Dieldrin	99.5		P	80 - 120
Kepone	94.3		P	80 - 120

Reference Method: EPA 8321B

Run ID: A103914

Included Lab Sample IDs: 2226409

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	114	114	P/P	60 - 160

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A103955

Included Lab Sample IDs: 2226412

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	100	99.4	P/P	90 - 110
Antimony	97.5	97.4	P/P	90 - 110
Arsenic	101	98.8	P/P	90 - 110
Beryllium	99.4	97.7	P/P	90 - 110
Boron	97.4	102	P/P	90 - 110
Cadmium	99.4	98.7	P/P	90 - 110
Chromium	98.2	97.4	P/P	90 - 110
Copper	99.8	97.2	P/P	90 - 110
Lead	108	107	P/P	90 - 110
Nickel	100	98.6	P/P	90 - 110
Selenium	100	99.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A103955

Included Lab Sample IDs: 2226412

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Silver	102	101	P/P	90 - 110
Thallium	106	106	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A103961

Included Lab Sample IDs: 2226406

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.7	95.6	P/P	90 - 110

* 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 180.1 Rev. 2.0	Turbidity							1.95	
EPA 200.7 Rev. 4.4	Barium	98.6		108	102	103			1.05
	Calcium	103		110	104				1.25
	Iron	99.1		107	103	106			2.07
	Magnesium	94.8		103	96.4				2.72
	Manganese	97.8		106	102	103			1.39
	Potassium	98.8		105	104	107			2.42
	Sodium	103		109	103	107			2.40
	Zinc	98.4		107	113	113			0.122
EPA 200.8 Rev. 5.4	Aluminum	100		97.5	98.3	104			0.877
	Antimony	101		98.4	99.2	98.2			0.893
	Arsenic	100		97.1	97.7	98.6			0.594
	Beryllium	92.7		90.9	98.3	92.4			7.54
	Boron	97.8		98.1	99.5	101			1.34
	Cadmium	95.2		94.3	96.9	96.3			2.70
	Chromium	96.4		94.8	95.8	95.8			1.05
	Copper	96.8		90.4	91.9	97.4			1.26
	Lead	105		102	103	105			0.758
	Nickel	98.0		93.3	93.7	96.7			0.379
	Selenium	100		96.3	97.4	95.1			1.18
	Silver	104		103	103	104			0.317
	Thallium	102		102	104	105			1.55
EPA 300.0 Rev. 2.1	Bromide	96.0		95.5	93.9	95.7			1.65
	Chloride	102		103	102			2.07	
	Sulfate	101		107	100			2.38	
EPA 350.1 Rev. 2.0	Ammonia-N	101		98.6	99.0				0.293
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	108		98.9	93.0				4.15
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	98.5		96.5	96.0				0.277
EPA 365.1 Rev. 2.0	Total-P	104		102	101				0.358
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.2		95.7	96.5				0.663
EPA 8270E	Acetochlor	103	87.0	96.1	89.1		17.1		7.54
	Alachlor	101	89.1	104	94.4		12.5		9.66
	Aldrin	39.4	41.2	75.8	79.1		4.50		4.21
	Alpha-BHC	77.7	76.0	86.4	93.5		2.26		7.90
	Alpha-Chlordane	84.1	84.8	85.2	98.9		0.822		14.8
	Ametryn	120	103	110	117		15.2		5.51
	Atrazine	103	88.7	109	97.3		15.1		6.34
	Atrazine Desethyl	101	84.6	80.7	83.7		17.7		3.06
	Azinphos Methyl	144	114	131	117		23.0		11.2
	Azoxystrobin	121	48.2	110	89.6		86.0		20.7
	Beta-BHC	89.9	88.8	80.3	87.2		1.26		8.25
	Beta-Cyfluthrin	89.1	86.0	93.7	106		3.54		12.7
	Bifenthrin	99.7	98.6	101	120		1.13		17.7
	Bromacil	103	80.0	100	96.1		25.1		3.89
	Butylate	64.1	58.5	56.9	51.8		9.23		9.44
	Caffeine	98.3	89.3	104	92.5		9.61		10.2
	Carbophenothion	88.0	80.6	77.5	78.8		8.69		1.72
	Carfentrazone Ethyl	113	97.3	107	95.1		15.3		11.8
	Chlorothalonil	67.5	74.7	64.5	65.9		10.2		2.19
	Chlorpyrifos Ethyl	91.2	78.5	80.3	81.3		15.0		1.31
	Chlorpyrifos Methyl	101	87.6	92.4	88.4		14.6		4.36
	Cis-Nonachlor	89.6	88.0	86.6	100		1.89		14.8
	Cyanazine	153	143	152	150		6.46		1.37
	Cypermethrin	114	112	116	140		1.94		19.4

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Dacthal	92.4	90.4	81.6	93.0	2.18	13.1
	DDD-p,p'	89.0	87.9	78.1	89.9	1.31	14.0
	DDE-p,p'	78.7	78.6	74.9	84.1	0.207	11.6
	DDT-p,p'	92.2	90.1	87.7	95.1	2.30	8.06
	Delta-BHC	93.5	90.5	85.8	95.1	3.21	10.3
	Deltamethrin	113	108	116	136	4.39	15.8
	Demeton	91.0	77.9	77.0	73.6	15.5	4.56
	Diazinon	111	93.7	108	101	16.4	6.28
	Dichlobenil	49.2	50.5	29.6	35.2	2.69	17.2
	Dicofol	110	106	89.1	99.1	4.04	10.7
	Dieldrin	77.8	77.2	79.3	78.8	0.717	0.638
	Difenoconazole	144	84.6	135	113	51.8	17.0
	Dimethenamid	101	82.7	96.1	83.8	20.2	13.7
	Disulfoton	99.3	89.0	91.8	91.6	10.9	0.245
	Dithiopyr	93.8	79.4	92.3	89.8	16.7	2.79
	Endosulfan I	96.3	91.0	86.8	100	5.62	14.1
	Endosulfan II	112	101	98.6	113	9.72	13.8
	Endosulfan Sulfate	91.8	86.0	84.8	104	6.53	20.1
	Endrin	96.6	97.8	97.8	108	1.23	10.3
	Endrin Aldehyde	90.5	96.6	111	114	6.46	2.64
	Endrin Ketone	98.8	93.4	89.7	108	5.56	18.7
	EPTC	64.0	55.6	55.0	46.5	14.0	16.8
	Esfenvalerate	95.6	96.1	98.2	113	0.533	13.9
	Ethalfuralin	77.6	78.7	79.2	85.6	1.47	7.77
	Ethion	64.7	43.0	55.5	43.4	40.3	24.4
	Ethoprop	104	86.1	101	98.6	18.7	2.24
	Fenamiphos	102	78.3	85.2	83.3	26.0	2.21
	Fenbuconazole	119	95.1	115	102	22.7	11.3
	Fenpropathrin	130	129	480	491	1.12	2.33
	Fipronil	111	91.0	112	104	19.6	7.90
	Fipronil Desulfinyl	101	83.3	98.3	90.3	19.5	8.44
	Fipronil Sulfide	92.2	72.8	85.5	85.5	23.5	0.0278
	Fipronil Sulfone	79.8	65.8	75.3	73.6	19.3	1.95
	Fluazifop-P-butyl	95.6	86.0	92.5	90.4	10.7	2.28
	Fludioxonil	106	80.1	105	86.9	27.8	19.0
	Flumioxazin	158	96.4	156	134	48.3	14.7
	Flutolanil	109	82.6	103	93.4	27.5	9.62
	Fluxapyroxad	95.0	75.8	81.7	69.4	22.5	16.3
	Fonofos	101	83.9	96.2	92.5	18.5	3.88
	Gamma-BHC	88.5	88.4	91.7	98.0	0.0499	6.65
	Gamma-Chlordane	87.1	86.1	84.1	101	1.21	17.9
	Heptachlor	75.4	75.5	80.8	93.1	0.0744	14.2
	Heptachlor Epoxide	89.8	87.6	84.8	98.8	2.49	15.2
	Hexachlorobenzene	71.5	70.3	79.5	91.7	1.73	14.2
	Hexazinone	98.2	81.0	97.8	88.6	19.2	9.78
	Imazalil	94.4	75.2	94.2	102	22.6	7.86
	Iprodione	94.3	71.7	86.7	77.8	27.2	10.8
	Kepone	102	99.6	82.8	81.2	2.56	1.98
	Lambda-Cyhalothrin	97.4	99.9	105	134	2.57	24.6
	Malathion	103	83.0	95.6	92.2	21.4	3.67
	Metalaxyl	101	85.3	98.5	91.3	16.8	7.66
	Methoxychlor	101	98.0	97.8	106	2.83	8.41
	Metolachlor	99.7	82.0	98.5	87.3	19.5	12.1
	Metribuzin	111	90.3	89.8	103	20.3	14.1

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270E	Mevinphos	96.7	75.0	92.4	87.2	25.3		5.75
	MGK-264	54.2	53.9	63.5	72.3	0.451		12.9
	Mirex	79.3	79.2	86.5	106	0.108		20.6
	Molinate	75.1	62.5	69.7	65.3	18.4		6.54
	Myclobutanil	107	85.1	102	91.7	22.5		11.1
	Naled	47.0	35.7	41.6	35.8	27.3		15.0
	Norflurazon	104	82.1	96.6	88.8	23.3		8.37
	Oxadiazon	92.9	79.5	89.7	84.1	15.6		6.43
	Oxyfluorfen	117	97.7	113	104	18.1		7.61
	Parathion Ethyl	106	85.4	99.9	93.5	21.7		6.60
	Parathion Methyl	113	96.4	106	100	15.6		5.86
	Pendimethalin	101	94.2	100	102	6.63		1.47
	Permethrin	80.5	81.2	82.1	101	0.786		20.5
	Phenothrin	57.2	57.4	71.8	88.1	0.292		20.4
	Phorate	94.1	78.7	90.3	85.1	17.8		5.91
	Piperonyl Butoxide	97.1	103	83.6	102	5.54		19.6
	Prallethrin	52.6	52.2	59.1	68.2	0.860		14.2
	Prodiamine	58.3	51.8	77.3	94.7	11.8		20.3
	Prometon	103	81.0	102	101	24.0		0.919
	Prometryn	115	93.7	108	105	20.8		3.18
	Pronamide	109	89.7	103	100	19.4		2.90
	Propiconazole	104	82.5	110	97.1	22.6		12.3
	Pyriproxyfen	97.4	78.8	98.0	82.0	21.1		17.8
	Simazine	107	87.8	104	107	19.7		2.19
	Sulfentrazone	48.0	39.7	91.4	87.7	18.9		3.68
	Tau-Fluvalinate	102	104	115	134	2.03		15.1
	Tebuconazole	73.5	44.1	67.1	53.3	50.0		23.0
	Terbufos	98.9	86.9	99.0	94.3	12.9		4.90
	Terbuthylazine	94.6	80.9	95.1	82.5	15.6		14.2
	Tetramethrin	124	114	125	156	8.44		22.1
	Trans-Nonachlor	85.4	83.1	82.3	97.2	2.70		16.6
	Triclosan Methyl	93.4	93.4	78.4	87.9	0.0318		11.4
	Trifluralin	79.6	78.0	77.4	87.7	1.99		12.5
EPA 8276	Chlordane	105	108	117	119	2.75		1.45
	Toxaphene	119	119	149	155	0.0308		4.55
EPA 8321B	2,4-D	139		105	105			0.460
	2,4,5-T	107		73.8	92.6			22.6
	3-Hydroxycarbofuran	79.9		102	91.4			10.6
	Acesulfame K	95.2		17.1	17.8			3.46
	Acetaminophen	104		146	101			36.4
	Acetamiprid	112		86.8	86.9			0.0174
	Afidopyropen	75.2		56.5	63.6			11.8
	Aldicarb	70.4		76.0	61.9			20.5
	Aldicarb Sulfone	102		119	110			7.89
	Aldicarb Sulfoxide	111		41.0	43.8			6.68
	AMPA	87.1		104	102			1.58
	Bentazon	89.0		29.0	32.7			5.74
	Benzovindiflupyr	91.0		68.7	66.5			3.34
	Carbamazepine	113		79.2	81.0			2.37
	Carbaryl	68.7		57.8	51.0			12.4
	Carbofuran	70.2		54.3	51.8			4.64
	Clothianidin	116		99.4	99.9			0.486
	Dinotefuran	109		118	123			4.58
	Diuron	67.3		46.0	46.6			1.40

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Endothall	93.7	97.1	97.8		0.687
	Fenuron	112	67.5	73.3		6.03
	Fluridone	94.7	60.9	64.4		5.56
	Glufosinate	109	106	102		4.41
	Glyphosate	82.4	62.9	90.5		29.3
	Hydrocodone	117	106	116		8.94
	Ibuprofen	108	79.2	74.1		6.66
	Imazapyr	149	101	96.0		5.24
	Imidacloprid	126	138	146		5.24
	Linuron	85.4	63.2	66.5		5.15
	Mandestrobin	97.3	75.9	75.7		0.257
	MCPP	123	87.4	91.1		3.83
	Methiocarb	63.4	68.0	58.7		14.5
	Methomyl	85.6	85.3	72.8		15.9
	Naproxen	49.4	55.5	80.8		37.2
	Oxamyl	97.8	97.0	92.2		5.07
	Primidone	122	90.6	105		14.9
	Propoxur	69.9	55.9	54.9		1.82
	Pyraclostrobin	77.6	67.5	65.1		3.59
	Sucralose	111	94.6	91.1		3.65
	Thiamethoxam	123	137	143		4.11
	Tolfenpyrad	50.5	54.7	42.7		24.7
	Triclopyr	105	78.7	89.3		12.5
SM 2120 B-2011	Color (true)	98.3			8.22	
SM 2320 B-2011	Total Alkalinity	94.7			2.25	
SM 2540 C-2011	TDS				0.0	
SM 4500 F-C-2011	Fluoride	98.6	101	102		0.953
SM 5310 B-2011	Organic Carbon	95.3	95.6	96.4		0.568

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2226405
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2226412
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2226412
EPA 300.0 Rev. 2.1	Bromide in aqueous matrices	2226405
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2226405
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2226405
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2226406
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2226406
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2226406
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2226406
EPA 365.1 Rev. 2.0	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2226407
EPA 8270E	Dieldrin (ultra low level) in water matrices by GC/MS/MS	2226410
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS-SIM	2226410
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2226411
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2226410
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2226408
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2226409
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2226409

Reference Method Descriptions

Method	Description	<u>Associated Samples</u>
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2226405
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2226405
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2226412
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2226405
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2226405
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2226405
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2226406

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	02/23/2021			02/23/2021 15:14	Yen Ta	2226405
EPA 200.7 Rev. 4.4	02/23/2021	02/24/2021 16:30	Elliott D. Healy	03/01/2021 17:07	Betina Topolski	2226412
EPA 200.8 Rev. 5.4	02/23/2021	02/24/2021 16:30	Elliott D. Healy	03/08/2021 14:55	Alexander Thompson	2226412
EPA 300.0 Rev. 2.1	02/23/2021			02/24/2021 22:31	Lipi Saha	2226405
	02/23/2021			02/26/2021 14:50	Lipi Saha	2226405
EPA 350.1 Rev. 2.0	02/23/2021			02/27/2021 13:27	Ping Hua	2226406
EPA 351.2 Rev. 2.0	02/23/2021	02/25/2021 12:02	Yen Ta	02/26/2021 14:17	Virginia P. Brown	2226406
EPA 353.2 Rev. 2.0	02/23/2021			02/24/2021 08:42	Beverly Y. Sanders	2226406
EPA 365.1 Rev. 2.0	02/23/2021	02/24/2021 11:30	Shengyu Wang	02/25/2021 12:15	Shengyu Wang	2226406
EPA 365.1 Rev. 2.0 dissolved	02/23/2021			02/23/2021 13:48	Lipi Saha	2226407
EPA 8270E	02/23/2021	02/23/2021 13:00	Fe-Val Siddell	02/24/2021 21:12	Vandana T. Nagar	2226411
	02/23/2021	02/23/2021 14:00	Rasheda Ghaffari	02/24/2021 22:59	Michael Poppell	2226410
	02/23/2021	02/23/2021 14:00	Rasheda Ghaffari	03/04/2021 19:08	Julie Wi	2226410
EPA 8276	02/23/2021	02/23/2021 14:00	Rasheda Ghaffari	02/28/2021 10:37	Arthur Maknenko	2226410
EPA 8321B	02/23/2021	02/23/2021 13:00	Hoor Shaik	02/24/2021 06:15	Juyoung Kim	2226409
	02/23/2021	02/23/2021 16:30	Rebecca Ware	02/23/2021 19:33	Rebecca Ware	2226409
	02/23/2021	02/23/2021 16:30	Rebecca Ware	03/04/2021 15:55	Rebecca Ware	2226409
	02/23/2021	02/24/2021 09:00	Hoor Shaik	02/24/2021 21:34	Juyoung Kim	2226408
SM 2120 B-2011	02/23/2021			02/23/2021 16:16	Benjamin T. Nordmann	2226405
SM 2320 B-2011	02/23/2021			03/02/2021 12:32	Dale L. Simmons	2226405
SM 2340B	02/23/2021			03/01/2021 17:07	Betina Topolski	2226412
SM 2540 C-2011	02/23/2021			02/26/2021 14:36	Yijie Li	2226405
SM 2540 D-2011	02/23/2021			02/26/2021 14:36	Yijie Li	2226405
SM 4500 F-C-2011	02/23/2021			02/25/2021 02:05	Dale L. Simmons	2226405
SM 5310 B-2011	02/23/2021			03/09/2021 01:36	Madeline Gruver	2226406