

Chemical Analysis Report

TLH-ROC-2021-06-22-03

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

Event Description: **Run 3**
Request ID: **RQ-2021-06-14-47**
Customer: **TLH-ROC**
Project ID: **SMP**

Send Reports to:
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Tallahassee, FL 32399
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Certified by: Colin Wright, Program Administrator

Date Certified: 15-JUL-2021 11:37

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light gray rectangular 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: 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: Spring Creek 50m Dstream US19

Collection Date/Time: 06/22/2021 08:45

Field ID: G1TLHR0145

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2256373	EPA 8321B	Aldicarb	0.020	UJ	ug/L	P400140	RPD
		Aldicarb Sulfone	0.0020	U	ug/L	P400140	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P400140	
		Carbaryl	0.0020	U	ug/L	P400140	
		Carbofuran	0.0020	U	ug/L	P400140	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P400140	
		Methiocarb	0.0020	U	ug/L	P400140	
		Methomyl	0.0020	U	ug/L	P400140	
		Oxamyl	0.0020	U	ug/L	P400140	
		Propoxur	0.0020	U	ug/L	P400140	
2256374		2,4-D	0.0024	I	ug/L	P399973	
		Acesulfame K	0.10	UJ	ug/L	P400090	RPD
		2,4,5-T	0.0040	U	ug/L	P399973	
		AMPA	0.10	U	ug/L	P400090	
		Acetaminophen	0.0080	U	ug/L	P399973	
		Acetamiprid	0.0020	U	ug/L	P399973	
		Endothall	0.25	U	ug/L	P400090	
		Glufosinate	0.10	U	ug/L	P400090	
		Glyphosate	0.10	I	ug/L	P400090	
		Afidopyropen	0.0020	U	ug/L	P399973	MS, RPD
		Bentazon	8.0E-04	U	ug/L	P399973	
		Sucralose	0.022	I	ug/L	P400090	
		Benzovindiflupyr	0.0020	U	ug/L	P399973	
		Carbamazepine	8.0E-04	U	ug/L	P399973	
		Clothianidin	0.0020	U	ug/L	P399973	
		Dinotefuran	0.0020	U	ug/L	P399973	
		Diuron	0.0020	U	ug/L	P399973	
		Fenuron	0.016	U	ug/L	P399973	
		Fluridone	8.0E-04	U	ug/L	P399973	
		Imazapyr	0.019		ug/L	P399973	
		Hydrocodone	0.0020	U	ug/L	P399973	
		Ibuprofen	0.020	U	ug/L	P399973	
		Imidacloprid	0.0020	U	ug/L	P399973	
		Linuron	0.0040	U	ug/L	P399973	
		Mandestrobin	0.0020	U	ug/L	P399973	
		MCPP	0.0020	U	ug/L	P399973	
		Naproxen	0.0080	U	ug/L	P399973	
		Primidone	0.0040	U	ug/L	P399973	
		Pyraclostrobin	0.0020	U	ug/L	P399973	
		Thiamethoxam	0.0020	U	ug/L	P399973	
		Tolfenpyrad	0.0020	U	ug/L	P399973	
		Triclopyr	0.0040	U	ug/L	P399973	
2256375	EPA 8270E	Aldrin	0.70	U	ng/L	P400144	
		Alpha-BHC	0.11	U	ng/L	P400144	

Field ID: G1TLHR0145

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2256375	EPA 8270E	Alpha-Chlordane	0.41	I	ng/L	P400144	
		Beta-BHC	0.11	U	ng/L	P400144	
		Beta-Cyfluthrin**	1.3	U	ng/L	P400144	
		Bifenthrin**	1.6	I	ng/L	P400144	MS
		Chlorothalonil	0.54	U	ng/L	P400144	
		Cis-Nonachlor**	0.22	U	ng/L	P400144	
		Cypermethrin	1.6	U	ng/L	P400144	
		Dacthal**	0.16	U	ng/L	P400144	
		DDD-p,p'	0.27	U	ng/L	P400144	
		DDE-p,p'	0.22	U	ng/L	P400144	
		DDT-p,p'	0.27	U	ng/L	P400144	
		Delta-BHC	0.43	U	ng/L	P400144	
		Deltamethrin**	1.3	U	ng/L	P400144	
		Dichlobenil**	0.11	U	ng/L	P400144	
		Dicofol	1.3	U	ng/L	P400144	
		Dieldrin	3.2		ng/L	P400144	
		Endosulfan I	0.94	I	ng/L	P400144	
		Endosulfan II	0.43	U	ng/L	P400144	
		Endosulfan Sulfate	0.32	U	ng/L	P400144	
		Endrin	0.93	I	ng/L	P400144	
		Endrin Aldehyde	0.81	U	ng/L	P400144	
		Endrin Ketone	0.43	U	ng/L	P400144	
		Esfenvalerate**	0.81	U	ng/L	P400144	
		Ethalfuralin**	0.16	U	ng/L	P400144	
		Fenpropathrin**	0.27	U	ng/L	P400144	
		Gamma-BHC	0.13	U	ng/L	P400144	
		Gamma-Chlordane	0.34	I	ng/L	P400144	
		Heptachlor	0.22	U	ng/L	P400144	
		Heptachlor Epoxide	0.31	I	ng/L	P400144	
		Hexachlorobenzene	1.1	U	ng/L	P400144	
		Kepone**	5.4	U	ng/L	P400144	
		Lambda-Cyhalothrin**	0.81	U	ng/L	P400144	MS
		Methoxychlor	0.32	U	ng/L	P400144	
		MGK-264**	0.22	U	ng/L	P400144	
		Mirex	0.32	U	ng/L	P400144	
		Permethrin	1.7	U	ng/L	P400144	
		Phenothrin**	0.97	U	ng/L	P400144	
		Piperonyl Butoxide**	0.16	U	ng/L	P400144	
		Prallethrin**	2.2	U	ng/L	P400144	
		Tau-Fluvalinate**	0.27	U	ng/L	P400144	
		Tetramethrin**	0.81	U	ng/L	P400144	RPD
		Trans-Nonachlor**	0.22	U	ng/L	P400144	
		Triclosan Methyl**	0.16	U	ng/L	P400144	
		Trifluralin	0.22	U	ng/L	P400144	
	EPA 8276	Chlordane	5.4	U	ng/L	P400144	

Field ID: G1TLHR0145

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2256375	EPA 8276	Toxaphene	32	U	ng/L	P400144	
2256376	EPA 8270E	Acetochlor	0.25	U	ng/L	P400222	
		Alachlor	0.25	U	ng/L	P400222	
		Ametryn	0.60	U	ng/L	P400222	
		Atrazine	0.25	U	ng/L	P400222	
		Atrazine Desethyl	1.5	U	ng/L	P400222	
		Azinphos Methyl	2.0	U	ng/L	P400222	
		Azoxystrobin**	0.50	U	ng/L	P400222	
		Bromacil	4.6		ng/L	P400222	
		Butylate	0.40	U	ng/L	P400222	
		Caffeine**	26	I	ng/L	P400222	
		Carbophenothion	0.50	U	ng/L	P400222	
		Carfentrazone Ethyl**	0.10	U	ng/L	P400222	
		Chlorpyrifos Ethyl	0.25	U	ng/L	P400222	MS, RPD
		Chlorpyrifos Methyl	0.050	U	ng/L	P400222	
		Cyanazine	3.3	U	ng/L	P400222	
		Demeton	1.5	UJ	ng/L	P400222	LCS
		Diazinon	0.13	U	ng/L	P400222	
		Difenoconazole**	0.60	U	ng/L	P400222	
		Dimethenamid**	0.10	U	ng/L	P400222	
		Disulfoton	0.50	U	ng/L	P400222	
		Dithiopyr**	0.18	U	ng/L	P400222	
		EPTC	1.3	U	ng/L	P400222	
		Ethion	0.15	U	ng/L	P400222	
		Ethoprop	0.10	U	ng/L	P400222	
		Fenamiphos	0.50	U	ng/L	P400222	
		Fenbuconazole**	0.13	U	ng/L	P400222	
		Fipronil	0.25	U	ng/L	P400222	
		Fipronil Desulfinyl**	0.13	U	ng/L	P400222	
		Fipronil Sulfide	0.15	U	ng/L	P400222	
		Fipronil Sulfone	0.15	U	ng/L	P400222	
		Fluazifop-P-butyl**	0.10	U	ng/L	P400222	
		Fludioxonil**	0.13	U	ng/L	P400222	
		Flumioxazin**	9.1		ng/L	P400222	
		Flutolanil**	0.10	U	ng/L	P400222	
		Fluxapyroxad**	0.10	U	ng/L	P400222	
		Fonofos	0.20	U	ng/L	P400222	
		Hexazinone	18		ng/L	P400222	
		Imazalil**	0.75	U	ng/L	P400222	
		Iprodione**	0.60	U	ng/L	P400222	
		Malathion	0.35	U	ng/L	P400222	
		Metalaxyl	0.75	U	ng/L	P400222	
		Metolachlor	0.35	U	ng/L	P400222	
		Metribuzin	3.3	U	ng/L	P400222	
		Mevinphos	1.1	U	ng/L	P400222	

Field ID: G1TLHR0145

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2256376	EPA 8270E	Molinate	0.30	U	ng/L	P400222	
		Myclobutanil**	0.25	U	ng/L	P400222	
		Naled**	1.5	U	ng/L	P400222	
		Norflurazon	0.50	U	ng/L	P400222	
		Oxadiazon	0.30	U	ng/L	P400222	
		Oxyfluorfen**	0.15	U	ng/L	P400222	
		Parathion Ethyl	0.25	U	ng/L	P400222	
		Parathion Methyl	0.55	U	ng/L	P400222	
		Pendimethalin	1.0	U	ng/L	P400222	
		Phorate	0.53	U	ng/L	P400222	
		Prodiamine**	0.18	U	ng/L	P400222	
		Prometon	0.91	U	ng/L	P400222	
		Prometryn	0.20	U	ng/L	P400222	
		Pronamide**	0.15	U	ng/L	P400222	
		Propiconazole**	71		ng/L	P400222	
		Pyriproxyfen**	0.13	U	ng/L	P400222	
		Simazine	0.50	U	ng/L	P400222	
		Sulfentrazone**	0.50	U	ng/L	P400222	
		Tebuconazole**	0.71	I	ng/L	P400222	
		Terbufos	0.10	U	ng/L	P400222	
		Terbuthylazine	0.43	U	ng/L	P400222	

Ref. Method and Comment:

EPA 8321B: Refer to the Lab Analysis Report for an explanation of QC Codes.

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

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

Sample Location: Fenholloway River

Collection Date/Time: 06/22/2021 09:15

Field ID: G1TLHR0030

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2256357	EPA 180.1 Rev. 2.0	Turbidity	2.2		NTU	P400062	
	EPA 300.0 Rev. 2.1	Chloride	16		mg Cl/L	P400551	
		Sulfate	47		mg SO4/L	P400554	
		Color (true)	74		PCU	P400068	
	SM 2320 B-2011	Total Alkalinity	128		mg CaCO3/L	P400493	
	SM 2540 C-2011	TDS	238		mg/L	P400471	
	SM 2540 D-2011	TSS	2	I	mg/L	P400244	
	SM 4500 F-C-2011	Fluoride	0.12		mg F/L	P400495	
2256359	EPA 350.1 Rev. 2.0	Ammonia-N	0.22		mg N/L	P400413	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.62		mg N/L	P400322	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.095		mg N/L	P400149	
	EPA 365.1 Rev. 2.0	Total-P	0.18		mg P/L	P400301	
	SM 5310 B-2011	Organic Carbon	9.9		mg C/L	P400532	
2256361	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.14		mg P/L	P400065	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

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

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Weaver Warrior @ Old RR Track

Collection Date/Time: 06/22/2021 09:35

Field ID: G1TLHR0118

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2256363	EPA 180.1 Rev. 2.0	Turbidity	7.1		NTU	P400062	
	EPA 300.0 Rev. 2.1	Chloride	6.8		mg Cl/L	P400551	
		Sulfate	3.0		mg SO4/L	P400554	
		Color (true)	110		PCU	P400068	
	SM 2320 B-2011	Total Alkalinity	86		mg CaCO3/L	P400493	
	SM 2540 C-2011	TDS	128		mg/L	P400471	
	SM 2540 D-2011	TSS	14		mg/L	P400244	
	SM 4500 F-C-2011	Fluoride	0.10		mg F/L	P400495	
2256364	EPA 350.1 Rev. 2.0	Ammonia-N	0.081		mg N/L	P400413	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.96		mg N/L	P400322	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.020		mg N/L	P400149	
	EPA 365.1 Rev. 2.0	Total-P	0.21		mg P/L	P400301	
	SM 5310 B-2011	Organic Carbon	15		mg C/L	P400532	
2256365	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.046		mg P/L	P400065	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

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

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Ruth Spring

Collection Date/Time: 06/22/2021 11:00

Field ID: G1TLHR0140

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2256358	EPA 180.1 Rev. 2.0	Turbidity	0.65		NTU	P400062	
	EPA 300.0 Rev. 2.1	Chloride	7.9		mg Cl/L	P400551	
		Sulfate	18		mg SO4/L	P400554	
		Color (true)	7.2		PCU	P400068	
	SM 2320 B-2011	Total Alkalinity	176		mg CaCO3/L	P400493	
	SM 2540 C-2011	TDS	255		mg/L	P400471	
	SM 2540 D-2011	TSS	2	U	mg/L	P400244	
	SM 4500 F-C-2011	Fluoride	0.082	I	mg F/L	P400495	
2256360	EPA 350.1 Rev. 2.0	Ammonia-N	0.005		mg N/L	P400413	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.28		mg N/L	P400322	
	EPA 353.2 Rev. 2.0	NO2NO3-N	7.0		mg N/L	P400307	
	EPA 365.1 Rev. 2.0	Total-P	0.047		mg P/L	P400301	
	SM 5310 B-2011	Organic Carbon	1.5		mg C/L	P400532	
2256362	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.042		mg P/L	P400065	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

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

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P400062

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P400551

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P400554

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P400413

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P400322

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P400149

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P400307

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P400301

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P400065

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P400144

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	0.50	U	ng/L
Chlorothalonil	0.50	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cypermethrin	1.5	U	ng/L
Cypermethrin	1.5	U	ng/L
Dacthal	0.15	U	ng/L
Dacthal	0.15	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDT-p,p'	0.25	U	ng/L
DDT-p,p'	0.25	U	ng/L
Delta-BHC	0.40	U	ng/L
Delta-BHC	0.40	U	ng/L
Deltamethrin	1.2	U	ng/L
Deltamethrin	1.2	U	ng/L
Dichlobenil	0.10	U	ng/L
Dichlobenil	0.10	U	ng/L
Dicofol	1.2	U	ng/L
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.40	U	ng/L
Endrin	0.40	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Ketone	0.40	U	ng/L
Endrin Ketone	0.40	U	ng/L
Esfenvalerate	0.75	U	ng/L
Esfenvalerate	0.75	U	ng/L
Ethalfuralin	0.15	U	ng/L
Ethalfuralin	0.15	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P400144

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
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	0.30	U	ng/L
Mirex	0.30	U	ng/L
Permethrin	1.6	U	ng/L
Permethrin	1.6	U	ng/L
Phenothrin	0.90	U	ng/L
Phenothrin	0.90	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Prallethrin	2.0	U	ng/L
Prallethrin	2.0	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tetramethrin	0.75	U	ng/L
Tetramethrin	0.75	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Trifluralin	0.20	U	ng/L
Trifluralin	0.20	U	ng/L

Reference Method: EPA 8270E

Batch ID: P400222

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P400222

Component	Result	Code	Units
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Atrazine Desethyl	1.5	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	0.50	U	ng/L
Carbophenothion	0.50	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Cyanazine	3.2	U	ng/L
Cyanazine	3.2	U	ng/L
Demeton	1.5	U	ng/L
Demeton	1.5	U	ng/L
Diazinon	0.12	U	ng/L
Diazinon	0.12	U	ng/L
Difenoconazole	0.60	U	ng/L
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethenamid	0.10	U	ng/L
Disulfoton	0.50	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.18	U	ng/L
Dithiopyr	0.18	U	ng/L
EPTC	1.2	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P400222

Component	Result	Code	Units
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
Malathion	0.35	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.75	U	ng/L
Metalaxyl	0.75	U	ng/L
Metolachlor	0.35	U	ng/L
Metolachlor	0.35	U	ng/L
Metribuzin	3.2	U	ng/L
Metribuzin	3.2	U	ng/L
Mevinphos	1.0	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.30	U	ng/L
Molinate	0.30	U	ng/L
Myclobutanil	0.25	U	ng/L
Myclobutanil	0.25	U	ng/L
Naled	1.5	U	ng/L
Naled	1.5	U	ng/L
Norflurazon	0.50	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.52	U	ng/L
Phorate	0.52	U	ng/L
Prodiamine	0.18	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P400222

Component	Result	Code	Units
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
Propiconazole	0.50	U	ng/L
Propiconazole	0.50	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Simazine	0.50	U	ng/L
Simazine	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L
Terbuthylazine	0.42	U	ng/L

Reference Method: EPA 8276

Batch ID: P400144

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

Reference Method: EPA 8321B

Batch ID: P399973

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P399973

Component	Result	Code	Units
MCPPP	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: P400090

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: P400140

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: SM 2120 B-2011
Batch ID: P400068

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P400493

Component	Result	Code	Units
Total Alkalinity	0.65	U	mg CaCO3/L

Reference Method: SM 2540 C-2011
Batch ID: P400471

Component	Result	Code	Units
TDS	15	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 D-2011
Batch ID: P400244

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P400495

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P400532

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P400551

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P400554

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	100		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P400413

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	99.8		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P400322

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	107		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P400149

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	99.5		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P400307

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	99.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P400301

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P400065

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

Reference Method: EPA 8270E
Batch ID: P400144

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	23.3	22.8	P/P	20 - 150
Alpha-BHC	92.3	89.8	P/P	50 - 150
Alpha-Chlordane	84.5	82.2	P/P	50 - 150
Beta-BHC	97.4	99.4	P/P	50 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P400144

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Beta-Cyfluthrin	90.1	101	P/P	50 - 150
Bifenthrin	64.6	65.7	P/P	40 - 150
Chlorothalonil	134	130	P/P	20 - 150
Cis-Nonachlor	77.5	78.7	P/P	50 - 150
Cypermethrin	84.8	89.6	P/P	50 - 150
Dacthal	94.9	92.5	P/P	50 - 150
DDD-p,p'	74.8	75.3	P/P	50 - 150
DDE-p,p'	80.3	77.8	P/P	50 - 150
DDT-p,p'	74.5	75.7	P/P	50 - 150
Delta-BHC	109	109	P/P	50 - 150
Deltamethrin	115	115	P/P	50 - 150
Dichlobenil	69.7	68.8	P/P	40 - 150
Dicofol	79.3	96.0	P/P	50 - 150
Dieldrin	87.2	84.9	P/P	50 - 150
Endosulfan I	87.9	83.7	P/P	50 - 150
Endosulfan II	88.3	89.6	P/P	50 - 150
Endosulfan Sulfate	91.4	97.1	P/P	50 - 150
Endrin	81.1	83.1	P/P	50 - 150
Endrin Aldehyde	74.8	77.5	P/P	50 - 150
Endrin Ketone	90.8	92.7	P/P	50 - 150
Esfenvalerate	90.8	91.7	P/P	50 - 180
Ethalfuralin	84.0	81.6	P/P	50 - 150
Fenpropathrin	77.5	85.6	P/P	50 - 150
Gamma-BHC	96.0	93.2	P/P	50 - 150
Gamma-Chlordane	82.0	78.8	P/P	50 - 150
Heptachlor	78.3	76.5	P/P	50 - 150
Heptachlor Epoxide	88.5	83.4	P/P	50 - 150
Hexachlorobenzene	70.9	71.7	P/P	50 - 150
Kepone	91.3	99.1	P/P	30 - 180
Lambda-Cyhalothrin	85.8	85.0	P/P	50 - 200
Methoxychlor	88.6	92.8	P/P	50 - 150
MGK-264	52.0	49.8	P/P	30 - 150
Mirex	125	132	P/P	50 - 180
Permethrin	85.0	87.8	P/P	50 - 150
Phenothrin	32.2	34.1	P/P	20 - 150
Piperonyl Butoxide	88.2	84.9	P/P	50 - 150
Prallethrin	44.8	47.3	P/P	30 - 150
Tau-Fluvalinate	85.2	89.4	P/P	40 - 150
Tetramethrin	64.9	55.8	P/P	30 - 150
Trans-Nonachlor	81.5	77.9	P/P	50 - 150
Triclosan Methyl	86.9	82.7	P/P	50 - 150
Trifluralin	76.9	78.6	P/P	50 - 150

Reference Method: EPA 8270E

Batch ID: P400222

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	92.8	102	P/P	70 - 121
Alachlor	93.5	106	P/P	70 - 119
Ametryn	101	109	P/P	61 - 135
Atrazine	94.9	103	P/P	76 - 123
Atrazine Desethyl	60.7	76.3	P/P	35 - 140

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P400222

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Azinphos Methyl	97.2	109	P/P	57 - 163
Azoxystrobin	96.9	104	P/P	43 - 231
Bromacil	81.3	93.0	P/P	42 - 123
Butylate	46.6	56.8	P/P	34 - 92.0
Caffeine	85.0	83.8	P/P	70 - 130
Carbophenothion	100	108	P/P	61 - 121
Carfentrazone Ethyl	95.2	108	P/P	62 - 139
Chlorpyrifos Ethyl	84.9	98.8	P/P	67 - 121
Chlorpyrifos Methyl	92.7	101	P/P	67 - 120
Cyanazine	116	111	P/P	20 - 226
Demeton	34.6	38.1	F/P	35 - 125
Diazinon	90.5	103	P/P	70 - 122
Difenoconazole	137	160	P/P	56 - 186
Dimethenamid	74.7	83.8	P/P	67 - 119
Disulfoton	78.4	85.2	P/P	47 - 120
Dithiopyr	87.6	101	P/P	67 - 118
EPTC	47.9	55.4	P/P	33 - 90.0
Ethion	81.7	96.0	P/P	40 - 133
Ethoprop	79.5	92.0	P/P	61 - 121
Fenamiphos	89.2	104	P/P	31 - 139
Fenbuconazole	96.2	107	P/P	66 - 141
Fipronil	89.8	102	P/P	62 - 129
Fipronil Desulfinyl	96.4	110	P/P	59 - 126
Fipronil Sulfide	83.8	98.4	P/P	63 - 117
Fipronil Sulfone	91.5	88.9	P/P	57 - 117
Fluazifop-P-butyl	98.0	110	P/P	63 - 124
Fludioxonil	88.9	97.3	P/P	63 - 123
Flumioxazin	162	188	P/P	34 - 245
Flutolanil	85.3	97.5	P/P	56 - 131
Fluxapyroxad	83.1	91.8	P/P	57 - 117
Fonofos	80.2	86.3	P/P	61 - 116
Hexazinone	94.0	101	P/P	55 - 138
Imazalil	37.7	44.1	P/P	33 - 143
Iprodione	98.0	112	P/P	59 - 118
Malathion	92.9	105	P/P	62 - 138
Metaxyl	90.1	103	P/P	24 - 147
Metolachlor	91.2	102	P/P	68 - 118
Metribuzin	83.6	94.4	P/P	20 - 239
Mevinphos	78.0	83.8	P/P	46 - 124
Molinate	58.8	66.4	P/P	46 - 100
Myclobutanil	88.1	96.7	P/P	32 - 149
Naled	45.0	51.7	P/P	32 - 95.0
Norflurazon	86.2	95.9	P/P	57 - 127
Oxadiazon	83.4	95.9	P/P	63 - 118
Oxyfluorfen	99.7	114	P/P	69 - 137
Parathion Ethyl	87.0	87.5	P/P	70 - 113
Parathion Methyl	97.6	102	P/P	71 - 130
Pendimethalin	93.5	93.2	P/P	55 - 118
Phorate	77.9	81.4	P/P	46 - 125
Prodiamine	63.9	84.8	P/P	20 - 141
Prometon	82.3	94.1	P/P	54 - 122
Prometryn	82.6	97.6	P/P	66 - 124

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P400222

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Pronamide	88.3	100	P/P	79 - 122
Propiconazole	82.1	92.6	P/P	61 - 126
Pyriproxyfen	82.1	98.0	P/P	52 - 131
Simazine	90.2	97.0	P/P	75 - 128
Sulfentrazone	80.9	92.2	P/P	20 - 132
Tebuconazole	57.6	64.6	P/P	20 - 116
Terbufos	97.1	110	P/P	61 - 117
Terbutylazine	91.6	98.6	P/P	74 - 116

Reference Method: EPA 8276

Batch ID: P400144

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	86.7	91.1	P/P	56 - 117
Toxaphene	88.8	93.5	P/P	45 - 116

Reference Method: EPA 8321B

Batch ID: P399973

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	104		P	30 - 160
2,4,5-T	98.0		P	30 - 160
Acetaminophen	78.3		P	30 - 160
Acetamiprid	75.5		P	30 - 160
Afidopyropen	71.5		P	30 - 160
Bentazon	76.8		P	30 - 160
Benzovindiflupyr	84.2		P	30 - 160
Carbamazepine	88.8		P	30 - 160
Clothianidin	81.4		P	30 - 160
Dinotefuran	88.5		P	30 - 160
Diuron	79.9		P	30 - 160
Fenuron	89.1		P	30 - 160
Fluridone	90.7		P	30 - 160
Hydrocodone	78.0		P	30 - 160
Ibuprofen	77.0		P	30 - 160
Imazapyr	110		P	30 - 160
Imidacloprid	81.6		P	30 - 160
Linuron	72.2		P	30 - 160
Mandestrobin	101		P	30 - 160
MCPP	101		P	30 - 160
Naproxen	101		P	30 - 160
Primidone	90.5		P	30 - 160
Pyraclostrobin	78.0		P	30 - 160
Thiamethoxam	90.2		P	30 - 160
Tolfenpyrad	52.3		P	30 - 160
Triclopyr	93.3		P	30 - 160

Reference Method: EPA 8321B

Batch ID: P400090

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	83.9		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P400090

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
AMPA	97.9		P	40 - 150
Endothall	72.9		P	40 - 150
Glufosinate	96.7		P	40 - 150
Glyphosate	102		P	40 - 140
Sucralose	92.1		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P400140

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	97.9		P	30 - 160
Aldicarb	45.7		P	30 - 160
Aldicarb Sulfone	93.8		P	30 - 160
Aldicarb Sulfoxide	92.7		P	30 - 160
Carbaryl	69.7		P	30 - 160
Carbofuran	83.2		P	30 - 160
Methiocarb	72.0		P	30 - 160
Methomyl	101		P	30 - 160
Oxamyl	89.4		P	30 - 160
Propoxur	82.7		P	30 - 160

Reference Method: SM 2120 B-2011
Batch ID: P400068

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	101		P	85 - 115

Reference Method: SM 2320 B-2011
Batch ID: P400493

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	94 - 106

Reference Method: SM 4500 F-C-2011
Batch ID: P400495

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.5		P	93 - 104

Reference Method: SM 5310 B-2011
Batch ID: P400532

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.8		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P400551

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2256267	Chloride	97.7		P	90 - 110
2256634	Chloride	97.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P400554

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2256267	Sulfate	98.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P400413

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2256269	Ammonia-N	96.4	98.8	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P400149

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2256349	NO2NO3-N	97.8	98.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P400307

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2257415	NO2NO3-N	98.6	98.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P400301

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2256630	Total-P	102	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P400065

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2256278	O-Phosphate-P	100	98.7	P/P	90 - 110

Reference Method: EPA 8270E
 Batch ID: P400144

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2256319	Aldrin	32.3	32.4	P/P	20 - 170
2256319	Alpha-BHC	92.7	93.1	P/P	50 - 170
2256319	Alpha-Chlordane	84.8	81.1	P/P	50 - 170
2256319	Beta-BHC	101	101	P/P	50 - 170
2256319	Beta-Cyfluthrin	106	77.8	P/P	50 - 170
2256319	Bifenthrin	47.3	37.2	P/F	40 - 170
2256319	Chlorothalonil	163	148	P/P	20 - 170
2256319	Cis-Nonachlor	88.6	78.0	P/P	50 - 170
2256319	Cypermethrin	116	96.8	P/P	50 - 170

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P400144

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2256319	Dacthal	97.5	85.6	P/P	50 - 170
2256319	DDD-p,p'	83.6	71.9	P/P	50 - 170
2256319	DDE-p,p'	80.5	77.3	P/P	50 - 170
2256319	DDT-p,p'	81.9	83.0	P/P	50 - 170
2256319	Delta-BHC	122	116	P/P	50 - 170
2256319	Deltamethrin	122	87.3	P/P	50 - 170
2256319	Dichlobenil	58.6	56.4	P/P	40 - 170
2256319	Dicofol	96.9	81.0	P/P	50 - 170
2256319	Dieldrin	94.7	84.4	P/P	50 - 170
2256319	Endosulfan I	89.9	84.4	P/P	50 - 170
2256319	Endosulfan II	102	84.4	P/P	50 - 170
2256319	Endosulfan Sulfate	108	86.0	P/P	50 - 170
2256319	Endrin	94.5	82.2	P/P	50 - 170
2256319	Endrin Aldehyde	83.7	70.2	P/P	50 - 170
2256319	Endrin Ketone	103	83.3	P/P	50 - 170
2256319	Esfenvalerate	94.7	71.8	P/P	50 - 180
2256319	Ethalfuralin	89.6	84.8	P/P	50 - 170
2256319	Fenpropathrin	98.1	79.8	P/P	50 - 170
2256319	Gamma-BHC	96.6	99.1	P/P	50 - 170
2256319	Gamma-Chlordane	76.1	70.0	P/P	50 - 170
2256319	Heptachlor	81.6	78.4	P/P	50 - 170
2256319	Heptachlor Epoxide	80.8	72.8	P/P	50 - 170
2256319	Hexachlorobenzene	75.8	79.2	P/P	50 - 170
2256319	Kepone	103	94.3	P/P	30 - 180
2256319	Lambda-Cyhalothrin	66.0	41.2	P/F	50 - 200
2256319	Methoxychlor	101	94.5	P/P	50 - 170
2256319	MGK-264	59.3	52.0	P/P	30 - 170
2256319	Mirex	144	129	P/P	50 - 180
2256319	Permethrin	109	91.8	P/P	50 - 170
2256319	Phenothrin	51.8	42.6	P/P	20 - 170
2256319	Piperonyl Butoxide	105	93.9	P/P	50 - 170
2256319	Prallethrin	52.9	48.0	P/P	30 - 170
2256319	Tau-Fluvalinate	109	88.7	P/P	40 - 170
2256319	Tetramethrin	81.9	57.9	P/P	30 - 170
2256319	Trans-Nonachlor	81.3	77.4	P/P	50 - 170
2256319	Triclosan Methyl	86.5	81.3	P/P	50 - 170
2256319	Trifluralin	83.4	81.5	P/P	50 - 170

Reference Method: EPA 8270E

Batch ID: P400222

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2257106	Acetochlor	112	105	P/P	66 - 122
2257106	Alachlor	93.9	102	P/P	65 - 122
2257106	Ametryn	117	118	P/P	45 - 173
2257106	Atrazine Desethyl	48.1	50.7	P/P	25 - 150
2257106	Azinphos Methyl	121	110	P/P	44 - 174
2257106	Azoxystrobin	110	107	P/P	10 - 268
2257106	Butylate	69.4	55.6	P/P	15 - 97.0
2257106	Carbophenothion	101	98.2	P/P	42 - 129
2257106	Carfentrazone Ethyl	95.8	87.2	P/P	62 - 145
2257106	Chlorpyrifos Ethyl	136	94.5	F/P	60 - 124

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P400222

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2257106	Chlorpyrifos Methyl	99.2	97.9	P/P	66 - 119
2257106	Cyanazine	125	116	P/P	17 - 225
2257106	Demeton	49.7	51.3	P/P	36 - 142
2257106	Diazinon	101	96.3	P/P	70 - 128
2257106	Difenoconazole	172	144	P/P	33 - 222
2257106	Dimethenamid	83.1	80.6	P/P	54 - 125
2257106	Disulfoton	85.4	88.7	P/P	49 - 133
2257106	Dithiopyr	91.3	90.2	P/P	55 - 123
2257106	EPTC	52.5	40.6	P/P	19 - 91.0
2257106	Ethion	88.7	84.0	P/P	13 - 143
2257106	Ethoprop	98.3	91.3	P/P	49 - 144
2257106	Fenamiphos	66.9	73.9	P/P	32 - 136
2257106	Fenbuconazole	106	101	P/P	73 - 148
2257106	Fipronil Desulfinyl	91.6	98.8	P/P	49 - 127
2257106	Fluazifop-P-butyl	97.0	97.3	P/P	67 - 129
2257106	Fludioxonil	97.8	90.1	P/P	61 - 126
2257106	Flumioxazin	193	171	P/P	38 - 279
2257106	Flutolanil	81.7	78.8	P/P	55 - 136
2257106	Fluxapyroxad	90.2	84.6	P/P	33 - 140
2257106	Fonofos	91.9	95.6	P/P	58 - 125
2257106	Hexazinone	106	108	P/P	57 - 148
2257106	Imazalil	62.3	63.3	P/P	10 - 221
2257106	Iprodione	102	96.7	P/P	32 - 140
2257106	Malathion	120	124	P/P	52 - 138
2257106	Metalaxyl	83.6	91.9	P/P	46 - 134
2257106	Metolachlor	95.9	93.8	P/P	58 - 122
2257106	Metribuzin	99.8	102	P/P	16 - 272
2257106	Mevinphos	99.1	86.9	P/P	45 - 140
2257106	Molinate	75.9	65.1	P/P	41 - 103
2257106	Myclobutanil	96.4	97.0	P/P	60 - 134
2257106	Naled	57.0	54.7	P/P	20 - 113
2257106	Norflurazon	88.7	85.1	P/P	51 - 123
2257106	Oxadiazon	80.8	82.7	P/P	44 - 125
2257106	Oxyfluorfen	105	107	P/P	66 - 176
2257106	Parathion Ethyl	91.9	93.3	P/P	57 - 132
2257106	Parathion Methyl	112	102	P/P	59 - 156
2257106	Pendimethalin	105	106	P/P	59 - 129
2257106	Phorate	91.8	89.9	P/P	47 - 136
2257106	Prodiamine	71.0	77.8	P/P	10 - 159
2257106	Prometryn	78.8	86.3	P/P	59 - 129
2257106	Pronamide	92.0	99.5	P/P	65 - 145
2257106	Pyriproxyfen	71.7	74.3	P/P	21 - 180
2257106	Simazine	83.6	87.6	P/P	63 - 147
2257106	Sulfentrazone	93.0	86.5	P/P	32 - 136
2257106	Tebuconazole	42.8	49.0	P/P	10 - 117
2257106	Terbufos	118	111	P/P	61 - 131
2257106	Terbutylazine	91.5	102	P/P	62 - 126

Reference Method: EPA 8276
Batch ID: P400144

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

Reference Method: EPA 8276
Batch ID: P400144

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2256690	Chlordane	103	96.5	P/P	47 - 128
2256690	Toxaphene	109	94.9	P/P	11 - 163

Reference Method: EPA 8321B
Batch ID: P399973

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2255827	2,4,5-T	104	87.5	P/P	30 - 160
2255827	Acetaminophen	97.1	89.2	P/P	30 - 160
2255827	Acetamiprid	77.8	58.4	P/P	30 - 160
2255827	Afidopyropen	67.5	6.62	P/F	30 - 160
2255827	Bentazon	64.4	59.5	P/P	30 - 160
2255827	Benzovindiflupyr	89.4	78.1	P/P	30 - 160
2255827	Carbamazepine	97.2	89.8	P/P	30 - 160
2255827	Clothianidin	95.7	99.6	P/P	30 - 160
2255827	Dinotefuran	114	93.7	P/P	30 - 160
2255827	Diuron	77.8	71.8	P/P	30 - 160
2255827	Fenuron	88.0	84.8	P/P	30 - 160
2255827	Fluridone	91.5	81.3	P/P	30 - 160
2255827	Hydrocodone	111	86.8	P/P	30 - 160
2255827	Ibuprofen	91.3	82.4	P/P	30 - 160
2255827	Imazapyr	158	140	P/P	30 - 160
2255827	Imidacloprid	127	116	P/P	30 - 160
2255827	Linuron	72.1	61.6	P/P	30 - 160
2255827	Mandestrobin	107	88.5	P/P	30 - 160
2255827	MCPP	104	93.8	P/P	30 - 160
2255827	Naproxen	80.3	97.0	P/P	30 - 160
2255827	Primidone	103	98.0	P/P	30 - 160
2255827	Pyraclostrobin	80.6	75.0	P/P	30 - 160
2255827	Thiamethoxam	128	117	P/P	30 - 160
2255827	Tolfenpyrad	54.2	48.1	P/P	30 - 160
2255827	Triclopyr	105	93.6	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P400090

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2256374	Acesulfame K	105	77.0	P/P	40 - 150
2256374	AMPA	79.8	84.1	P/P	40 - 150
2256374	Endothall	102	99.8	P/P	40 - 150
2256374	Glufosinate	94.5	100	P/P	40 - 150
2256374	Glyphosate	100	100	P/P	40 - 140
2256374	Sucralose	94.2	101	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P400140

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2256373	3-Hydroxycarbofuran	84.6	82.5	P/P	30 - 160
2256373	Aldicarb	79.0	43.7	P/P	30 - 160
2256373	Aldicarb Sulfone	95.0	93.8	P/P	30 - 160
2256373	Aldicarb Sulfoxide	43.3	41.5	P/P	30 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P400140

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2256373	Carbaryl	65.5	63.9	P/P	30 - 160
2256373	Carbofuran	79.3	81.9	P/P	30 - 160
2256373	Methiocarb	81.6	81.7	P/P	30 - 160
2256373	Methomyl	97.4	87.6	P/P	30 - 160
2256373	Oxamyl	78.4	86.6	P/P	30 - 160
2256373	Propoxur	82.7	82.6	P/P	30 - 160

Reference Method: SM 4500 F-C-2011
Batch ID: P400495

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2256634	Fluoride	99.4	101	P/P	92 - 107

Reference Method: SM 5310 B-2011
Batch ID: P400532

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2256635	Organic Carbon	95.5	96.4	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P400062

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2256348	Turbidity	2.02	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P400551

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2256267	Chloride	0.560	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P400554

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2256267	Sulfate	0.621	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P400413

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2256269	Ammonia-N	1.97	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P400322

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2256291	Kjeldahl Nitrogen	0.359	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P400149

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2256349	NO2NO3-N	0.418	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P400307

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2257415	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P400301

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2256630	Total-P	2.76	Spike	P	0 - 20

Quality Assurance Report

Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P400065

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2256278	O-Phosphate-P	1.51	Spike	P	0 - 20

Reference Method: EPA 8270E

Batch ID: P400144

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2256319	Aldrin	0.336	Spike	P	0 - 30
2256319	Alpha-BHC	0.392	Spike	P	0 - 30
2256319	Alpha-Chlordane	4.38	Spike	P	0 - 30
2256319	Beta-BHC	0.318	Spike	P	0 - 30
2256319	Beta-Cyfluthrin	23.9	Spike	P	0 - 30
2256319	Bifenthrin	13.7	Spike	P	0 - 30
2256319	Chlorothalonil	9.24	Spike	P	0 - 50
2256319	Cis-Nonachlor	12.8	Spike	P	0 - 30
2256319	Cypermethrin	18.4	Spike	P	0 - 30
2256319	Dacthal	13.0	Spike	P	0 - 30
2256319	DDD-p,p'	15.0	Spike	P	0 - 30
2256319	DDE-p,p'	4.06	Spike	P	0 - 30
2256319	DDT-p,p'	1.26	Spike	P	0 - 30
2256319	Delta-BHC	4.96	Spike	P	0 - 30
2256319	Deltamethrin	25.5	Spike	P	0 - 30
2256319	Dichlobenil	3.91	Spike	P	0 - 30
2256319	Dicofol	17.9	Spike	P	0 - 30
2256319	Dieldrin	7.03	Spike	P	0 - 30
2256319	Endosulfan I	6.25	Spike	P	0 - 30
2256319	Endosulfan II	19.3	Spike	P	0 - 30
2256319	Endosulfan Sulfate	22.3	Spike	P	0 - 30
2256319	Endrin	13.9	Spike	P	0 - 30
2256319	Endrin Aldehyde	17.6	Spike	P	0 - 30
2256319	Endrin Ketone	21.3	Spike	P	0 - 30
2256319	Esfenvalerate	21.1	Spike	P	0 - 30
2256319	Ethalfuralin	5.50	Spike	P	0 - 30
2256319	Fenpropathrin	20.6	Spike	P	0 - 30
2256319	Gamma-BHC	2.62	Spike	P	0 - 30
2256319	Gamma-Chlordane	7.57	Spike	P	0 - 30
2256319	Heptachlor	4.10	Spike	P	0 - 30
2256319	Heptachlor Epoxide	9.04	Spike	P	0 - 30
2256319	Hexachlorobenzene	4.43	Spike	P	0 - 30
2256319	Kepone	8.91	Spike	P	0 - 30
2256319	Lambda-Cyhalothrin	24.1	Spike	P	0 - 30
2256319	Methoxychlor	7.11	Spike	P	0 - 30
2256319	MGK-264	13.1	Spike	P	0 - 30
2256319	Mirex	11.2	Spike	P	0 - 30
2256319	Permethrin	16.7	Spike	P	0 - 30
2256319	Phenothrin	19.5	Spike	P	0 - 30
2256319	Piperonyl Butoxide	11.6	Spike	P	0 - 30
2256319	Prallethrin	9.74	Spike	P	0 - 30
2256319	Tau-Fluvalinate	20.5	Spike	P	0 - 30
2256319	Tetramethrin	34.4	Spike	F	0 - 30
2256319	Trans-Nonachlor	4.93	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P400144

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2256319	Triclosan Methyl	6.16	Spike	P	0 - 30
2256319	Trifluralin	2.31	Spike	P	0 - 30
LFB	Aldrin	2.18	LCS	P	0 - 30
LFB	Alpha-BHC	2.72	LCS	P	0 - 30
LFB	Alpha-Chlordane	2.71	LCS	P	0 - 30
LFB	Beta-BHC	2.07	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	11.8	LCS	P	0 - 30
LFB	Bifenthrin	1.75	LCS	P	0 - 30
LFB	Chlorothalonil	2.60	LCS	P	0 - 50
LFB	Cis-Nonachlor	1.52	LCS	P	0 - 30
LFB	Cypermethrin	5.53	LCS	P	0 - 30
LFB	Dacthal	2.56	LCS	P	0 - 30
LFB	DDD-p,p'	0.572	LCS	P	0 - 30
LFB	DDE-p,p'	3.08	LCS	P	0 - 30
LFB	DDT-p,p'	1.72	LCS	P	0 - 30
LFB	Delta-BHC	0.307	LCS	P	0 - 30
LFB	Deltamethrin	0.0788	LCS	P	0 - 30
LFB	Dichlobenil	1.27	LCS	P	0 - 30
LFB	Dicofol	19.0	LCS	P	0 - 30
LFB	Dieldrin	2.72	LCS	P	0 - 30
LFB	Endosulfan I	4.94	LCS	P	0 - 30
LFB	Endosulfan II	1.55	LCS	P	0 - 30
LFB	Endosulfan Sulfate	6.07	LCS	P	0 - 30
LFB	Endrin	2.43	LCS	P	0 - 30
LFB	Endrin Aldehyde	3.50	LCS	P	0 - 30
LFB	Endrin Ketone	2.03	LCS	P	0 - 30
LFB	Esfenvalerate	1.00	LCS	P	0 - 30
LFB	Ethalfluralin	2.99	LCS	P	0 - 30
LFB	Fenpropathrin	9.86	LCS	P	0 - 30
LFB	Gamma-BHC	3.00	LCS	P	0 - 30
LFB	Gamma-Chlordane	4.04	LCS	P	0 - 30
LFB	Heptachlor	2.40	LCS	P	0 - 30
LFB	Heptachlor Epoxide	5.86	LCS	P	0 - 30
LFB	Hexachlorobenzene	1.16	LCS	P	0 - 30
LFB	Kepone	8.11	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	0.904	LCS	P	0 - 30
LFB	Methoxychlor	4.64	LCS	P	0 - 30
LFB	MGK-264	4.36	LCS	P	0 - 30
LFB	Mirex	5.74	LCS	P	0 - 30
LFB	Permethrin	3.25	LCS	P	0 - 30
LFB	Phenothrin	5.58	LCS	P	0 - 30
LFB	Piperonyl Butoxide	3.78	LCS	P	0 - 30
LFB	Prallethrin	5.49	LCS	P	0 - 30
LFB	Tau-Fluvalinate	4.90	LCS	P	0 - 30
LFB	Tetramethrin	15.0	LCS	P	0 - 30
LFB	Trans-Nonachlor	4.51	LCS	P	0 - 30
LFB	Triclosan Methyl	5.04	LCS	P	0 - 30
LFB	Trifluralin	2.18	LCS	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P400222

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2257106	Acetochlor	6.25	Spike	P	0 - 30
2257106	Alachlor	8.18	Spike	P	0 - 30
2257106	Ametryn	0.721	Spike	P	0 - 30
2257106	Atrazine	3.25	Spike	P	0 - 30
2257106	Atrazine Desethyl	2.41	Spike	P	0 - 30
2257106	Azinphos Methyl	9.87	Spike	P	0 - 30
2257106	Azoxystrobin	2.11	Spike	P	0 - 30
2257106	Bromacil	5.69	Spike	P	0 - 30
2257106	Butylate	22.0	Spike	P	0 - 30
2257106	Caffeine	1.03	Spike	P	0 - 30
2257106	Carbophenothion	2.73	Spike	P	0 - 30
2257106	Carfentrazone Ethyl	9.49	Spike	P	0 - 30
2257106	Chlorpyrifos Ethyl	36.1	Spike	F	0 - 30
2257106	Chlorpyrifos Methyl	1.31	Spike	P	0 - 30
2257106	Cyanazine	6.92	Spike	P	0 - 30
2257106	Demeton	3.06	Spike	P	0 - 30
2257106	Diazinon	5.23	Spike	P	0 - 30
2257106	Difenoconazole	17.5	Spike	P	0 - 30
2257106	Dimethenamid	1.80	Spike	P	0 - 30
2257106	Disulfoton	3.90	Spike	P	0 - 30
2257106	Dithiopyr	0.997	Spike	P	0 - 30
2257106	EPTC	25.7	Spike	P	0 - 30
2257106	Ethion	5.35	Spike	P	0 - 30
2257106	Ethoprop	7.34	Spike	P	0 - 30
2257106	Fenamiphos	9.98	Spike	P	0 - 30
2257106	Fenbuconazole	4.59	Spike	P	0 - 30
2257106	Fipronil	2.34	Spike	P	0 - 30
2257106	Fipronil Desulfinyl	4.08	Spike	P	0 - 30
2257106	Fipronil Sulfide	4.75	Spike	P	0 - 30
2257106	Fipronil Sulfone	9.20	Spike	P	0 - 30
2257106	Fluazifop-P-butyl	0.318	Spike	P	0 - 30
2257106	Fludioxonil	8.16	Spike	P	0 - 30
2257106	Flumioxazin	10.2	Spike	P	0 - 30
2257106	Flutolanil	3.68	Spike	P	0 - 30
2257106	Fluxapyroxad	6.36	Spike	P	0 - 30
2257106	Fonofos	3.88	Spike	P	0 - 30
2257106	Hexazinone	1.22	Spike	P	0 - 30
2257106	Imazalil	1.61	Spike	P	0 - 30
2257106	Iprodione	5.10	Spike	P	0 - 30
2257106	Malathion	3.59	Spike	P	0 - 30
2257106	Metalaxyl	9.47	Spike	P	0 - 30
2257106	Metolachlor	1.88	Spike	P	0 - 30
2257106	Metribuzin	1.75	Spike	P	0 - 30
2257106	Mevinphos	13.2	Spike	P	0 - 30
2257106	Molinate	15.4	Spike	P	0 - 30
2257106	Myclobutanil	0.656	Spike	P	0 - 30
2257106	Naled	4.20	Spike	P	0 - 30
2257106	Norflurazon	4.09	Spike	P	0 - 30
2257106	Oxadiazon	1.68	Spike	P	0 - 30
2257106	Oxyfluorfen	2.20	Spike	P	0 - 30
2257106	Parathion Ethyl	1.56	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P400222

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2257106	Parathion Methyl	8.98	Spike	P	0 - 30
2257106	Pendimethalin	1.49	Spike	P	0 - 30
2257106	Phorate	2.06	Spike	P	0 - 30
2257106	Prodiamine	7.97	Spike	P	0 - 30
2257106	Prometon	1.44	Spike	P	0 - 30
2257106	Prometryn	9.10	Spike	P	0 - 30
2257106	Pronamide	7.76	Spike	P	0 - 30
2257106	Propiconazole	0.557	Spike	P	0 - 30
2257106	Pyriproxyfen	3.48	Spike	P	0 - 30
2257106	Simazine	2.28	Spike	P	0 - 30
2257106	Sulfentrazone	5.52	Spike	P	0 - 30
2257106	Tebuconazole	4.54	Spike	P	0 - 30
2257106	Terbufos	5.71	Spike	P	0 - 30
2257106	Terbuthylazine	10.5	Spike	P	0 - 30
LFB	Acetochlor	9.38	LCS	P	0 - 30
LFB	Alachlor	12.5	LCS	P	0 - 30
LFB	Ametryn	7.39	LCS	P	0 - 30
LFB	Atrazine	7.79	LCS	P	0 - 30
LFB	Atrazine Desethyl	22.8	LCS	P	0 - 30
LFB	Azinphos Methyl	11.5	LCS	P	0 - 30
LFB	Azoxystrobin	6.75	LCS	P	0 - 30
LFB	Bromacil	13.5	LCS	P	0 - 30
LFB	Butylate	19.9	LCS	P	0 - 30
LFB	Caffeine	1.46	LCS	P	0 - 30
LFB	Carbophenothion	7.09	LCS	P	0 - 30
LFB	Carfentrazone Ethyl	12.4	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	15.2	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	8.90	LCS	P	0 - 30
LFB	Cyanazine	5.08	LCS	P	0 - 30
LFB	Demeton	9.70	LCS	P	0 - 30
LFB	Diazinon	12.7	LCS	P	0 - 30
LFB	Difenoconazole	15.1	LCS	P	0 - 30
LFB	Dimethenamid	11.5	LCS	P	0 - 30
LFB	Disulfoton	8.29	LCS	P	0 - 30
LFB	Dithiopyr	13.9	LCS	P	0 - 30
LFB	EPTC	14.6	LCS	P	0 - 30
LFB	Ethion	16.2	LCS	P	0 - 30
LFB	Ethoprop	14.5	LCS	P	0 - 30
LFB	Fenamiphos	14.9	LCS	P	0 - 30
LFB	Fenbuconazole	10.2	LCS	P	0 - 30
LFB	Fipronil	13.0	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	13.0	LCS	P	0 - 30
LFB	Fipronil Sulfide	16.0	LCS	P	0 - 30
LFB	Fipronil Sulfone	2.97	LCS	P	0 - 30
LFB	Fluazifop-P-butyl	11.4	LCS	P	0 - 30
LFB	Fludioxonil	9.07	LCS	P	0 - 30
LFB	Flumioxazin	14.5	LCS	P	0 - 30
LFB	Flutolanil	13.3	LCS	P	0 - 30
LFB	Fluxapyroxad	10.0	LCS	P	0 - 30
LFB	Fonofos	7.44	LCS	P	0 - 30
LFB	Hexazinone	7.34	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P400222

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Imazalil	15.8	LCS	P	0 - 30
LFB	Iprodione	13.4	LCS	P	0 - 30
LFB	Malathion	11.9	LCS	P	0 - 30
LFB	Metalaxyl	13.5	LCS	P	0 - 30
LFB	Metolachlor	11.1	LCS	P	0 - 30
LFB	Metribuzin	12.2	LCS	P	0 - 30
LFB	Mevinphos	7.14	LCS	P	0 - 30
LFB	Molinate	12.1	LCS	P	0 - 30
LFB	Myclobutanil	9.32	LCS	P	0 - 30
LFB	Naled	13.8	LCS	P	0 - 30
LFB	Norflurazon	10.7	LCS	P	0 - 30
LFB	Oxadiazon	14.0	LCS	P	0 - 30
LFB	Oxyfluorfen	13.5	LCS	P	0 - 30
LFB	Parathion Ethyl	0.529	LCS	P	0 - 30
LFB	Parathion Methyl	4.52	LCS	P	0 - 30
LFB	Pendimethalin	0.357	LCS	P	0 - 30
LFB	Phorate	4.32	LCS	P	0 - 30
LFB	Prodiamine	28.1	LCS	P	0 - 30
LFB	Prometon	13.4	LCS	P	0 - 30
LFB	Prometryn	16.7	LCS	P	0 - 30
LFB	Pronamide	12.9	LCS	P	0 - 30
LFB	Propiconazole	12.1	LCS	P	0 - 30
LFB	Pyriproxyfen	17.7	LCS	P	0 - 30
LFB	Simazine	7.28	LCS	P	0 - 30
LFB	Sulfentrazone	13.0	LCS	P	0 - 30
LFB	Tebuconazole	11.4	LCS	P	0 - 30
LFB	Terbufos	12.7	LCS	P	0 - 30
LFB	Terbutylazine	7.33	LCS	P	0 - 30

Reference Method: EPA 8276

Batch ID: P400144

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2256690	Chlordane	6.11	Spike	P	0 - 30
2256690	Toxaphene	14.2	Spike	P	0 - 30
LFB	Chlordane	4.96	LCS	P	0 - 30
LFB	Toxaphene	5.12	LCS	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P399973

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255827	2,4-D	7.19	Spike	P	0 - 30
2255827	2,4,5-T	17.4	Spike	P	0 - 30
2255827	Acetaminophen	8.47	Spike	P	0 - 30
2255827	Acetamiprid	28.4	Spike	P	0 - 30
2255827	Afidopyropen	164	Spike	F	0 - 30
2255827	Bentazon	8.00	Spike	P	0 - 30
2255827	Benzovindiflupyr	13.5	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8321B

Batch ID: P399973

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255827	Carbamazepine	7.89	Spike	P	0 - 30
2255827	Clothianidin	3.92	Spike	P	0 - 30
2255827	Dinotefuran	19.4	Spike	P	0 - 30
2255827	Diuron	8.07	Spike	P	0 - 30
2255827	Fenuron	3.65	Spike	P	0 - 30
2255827	Fluridone	11.8	Spike	P	0 - 30
2255827	Hydrocodone	24.1	Spike	P	0 - 30
2255827	Ibuprofen	10.3	Spike	P	0 - 30
2255827	Imazapyr	11.2	Spike	P	0 - 30
2255827	Imidacloprid	8.80	Spike	P	0 - 30
2255827	Linuron	15.8	Spike	P	0 - 30
2255827	Mandestrobin	19.3	Spike	P	0 - 30
2255827	MCPP	10.4	Spike	P	0 - 30
2255827	Naproxen	18.8	Spike	P	0 - 30
2255827	Primidone	4.52	Spike	P	0 - 30
2255827	Pyraclostrobin	7.11	Spike	P	0 - 30
2255827	Thiamethoxam	8.77	Spike	P	0 - 30
2255827	Tolfenpyrad	11.9	Spike	P	0 - 30
2255827	Triclopyr	11.8	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P400090

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2256374	Acesulfame K	31.2	Spike	F	0 - 30
2256374	AMPA	5.21	Spike	P	0 - 30
2256374	Endothall	1.71	Spike	P	0 - 30
2256374	Glufosinate	5.98	Spike	P	0 - 30
2256374	Glyphosate	0.0759	Spike	P	0 - 30
2256374	Sucralose	6.69	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P400140

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2256373	3-Hydroxycarbofuran	2.43	Spike	P	0 - 30
2256373	Aldicarb	57.6	Spike	F	0 - 30
2256373	Aldicarb Sulfone	1.33	Spike	P	0 - 30
2256373	Aldicarb Sulfoxide	4.09	Spike	P	0 - 30
2256373	Carbaryl	2.45	Spike	P	0 - 30
2256373	Carbofuran	3.30	Spike	P	0 - 30
2256373	Methiocarb	0.0696	Spike	P	0 - 30
2256373	Methomyl	10.6	Spike	P	0 - 30
2256373	Oxamyl	9.93	Spike	P	0 - 30
2256373	Propoxur	0.0824	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: SM 2120 B-2011
Batch ID: P400068

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2256348	Color (true)	0.493	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P400493

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2256634	Total Alkalinity	1.67	Sample	P	0 - 5.2

Reference Method: SM 2540 C-2011
Batch ID: P400471

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2256288	TDS	6.20	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P400495

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2256634	Fluoride	0.953	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
Batch ID: P400532

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2256635	Organic Carbon	0.640	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2256373
Field Sample ID: G1TLHR0145

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	76.8	P	30 - 160

Lab Sample ID: 2256374
Field Sample ID: G1TLHR0145

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	101	P	30 - 160
EPA 8321B	Acetaminophen-d4	78.4	P	30 - 160
EPA 8321B	Carbamazepine-d10	96.7	P	30 - 160
EPA 8321B	Diuron-d6	78.0	P	30 - 160
EPA 8321B	Endothall-d6	95.2	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	103	P	40 - 160
EPA 8321B	Ibuprofen-d3	68.3	P	30 - 160
EPA 8321B	Primidone-d5	86.5	P	30 - 160
EPA 8321B	Sucralose-d6	93.7	P	30 - 160

Lab Sample ID: 2256375
Field Sample ID: G1TLHR0145

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	85.6	P	35 - 120
EPA 8270E	Tetrachloro-m-xylene	65.8	P	30 - 110
EPA 8276	Decachlorobiphenyl	66.8	P	29 - 92.0
EPA 8276	PCNB	87.1	P	43 - 134

Lab Sample ID: 2256376
Field Sample ID: G1TLHR0145

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	66.2	P	20 - 200
EPA 8270E	Simazine-d10	104	P	73 - 135
EPA 8270E	Terbufos-d10	86.8	P	58 - 130

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A106220

Included Lab Sample IDs: 2256357, 2256358, 2256363

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.5	99.0	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A106221

Included Lab Sample IDs: 2256361, 2256362, 2256365

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.4	96.5	P/P	90 - 110

Reference Method: SM 2120 B-2011

Run ID: A106222

Included Lab Sample IDs: 2256357, 2256358, 2256363

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.3	103	P/P	90 - 115

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A106247

Included Lab Sample IDs: 2256359, 2256364

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	100	P/P	90 - 110
NO2NO3-N	100	101	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A106300

Included Lab Sample IDs: 2256374

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	102	99.7	P/P	60 - 160
Glufosinate	103	101	P/P	60 - 160
Glyphosate	102	101	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A106301

Included Lab Sample IDs: 2256374

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	107	90.0	P/P	60 - 160
Endothall	75.3	86.2	P/P	60 - 160
Sucralose	92.0	94.1	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A106322

Included Lab Sample IDs: 2256374

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	94.3	95.4	P/P	50 - 150
2,4,5-T	121	97.3	P/P	50 - 150
Acetaminophen	102	98.4	P/P	60 - 160
Acetamiprid	98.7	105	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
 Run ID: A106322
 Included Lab Sample IDs: 2256374

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Afidopyropen	113	108	P/P	50 - 150
Bentazon	87.8	88.1	P/P	50 - 160
Benzovindiflupyr	100	93.7	P/P	50 - 160
Carbamazepine	101	99.6	P/P	60 - 150
Clothianidin	100	112	P/P	60 - 150
Dinotefuran	118	103	P/P	50 - 150
Diuron	111	100	P/P	60 - 160
Fenuron	98.4	96.0	P/P	60 - 150
Fluridone	103	107	P/P	60 - 160
Hydrocodone	103	89.7	P/P	60 - 150
Ibuprofen	97.8	86.0	P/P	50 - 160
Imazapyr	119	129	P/P	50 - 160
Imidacloprid	93.8	93.7	P/P	60 - 150
Linuron	93.1	68.5	P/P	60 - 150
Mandestrobin	117	122	P/P	50 - 150
MCPP	109	99.8	P/P	50 - 150
Naproxen	110	134	P/P	50 - 160
Primidone	94.8	98.9	P/P	60 - 150
Pyraclostrobin	97.8	96.2	P/P	60 - 150
Thiamethoxam	102	93.3	P/P	50 - 150
Tolfenpyrad	94.5	99.5	P/P	60 - 150
Triclopyr	113	97.6	P/P	50 - 150

Reference Method: EPA 8270E
 Run ID: A106333
 Included Lab Sample IDs: 2256375

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	98.2		P	80 - 120
Alpha-BHC	98.9		P	80 - 120
Alpha-Chlordane	100		P	80 - 120
Beta-BHC	95.2		P	80 - 120
Beta-Cyfluthrin	104		P	80 - 120
Bifenthrin	94.9		P	80 - 120
Chlorothalonil	113		P	80 - 120
Cis-Nonachlor	97.6		P	80 - 120
Cypermethrin	93.6		P	80 - 120
Dacthal	100		P	80 - 120
DDD-p,p'	95.4		P	80 - 120
DDE-p,p'	99.2		P	80 - 120
DDT-p,p'	101		P	80 - 120
Delta-BHC	101		P	80 - 120
Deltamethrin	106		P	80 - 120
Dichlobenil	105		P	80 - 120
Dicofol	94.4		P	80 - 120
Dieldrin	101		P	80 - 120
Endosulfan I	100		P	80 - 120
Endosulfan II	97.8		P	80 - 120
Endosulfan Sulfate	95.4		P	80 - 120
Endrin	97.0		P	80 - 120
Endrin Aldehyde	91.9		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A106333
Included Lab Sample IDs: 2256375

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Endrin Ketone	91.3		P	80 - 120
Esfenvalerate	94.9		P	80 - 120
Ethalfuralin	99.7		P	80 - 120
Fenpropathrin	94.6		P	80 - 120
Gamma-BHC	97.6		P	80 - 120
Gamma-Chlordane	101		P	80 - 120
Heptachlor	102		P	80 - 120
Heptachlor Epoxide	101		P	80 - 120
Hexachlorobenzene	98.5		P	80 - 120
Kepone	89.2		P	80 - 120
Lambda-Cyhalothrin	100		P	80 - 120
Methoxychlor	100		P	80 - 120
MGK-264	98.7		P	80 - 120
Mirex	97.1		P	80 - 120
Permethrin	96.9		P	80 - 120
Phenothrin	98.9		P	80 - 120
Piperonyl Butoxide	90.0		P	80 - 120
Prallethrin	99.7		P	80 - 120
Tau-Fluvalinate	99.2		P	80 - 120
Tetramethrin	99.0		P	80 - 120
Trans-Nonachlor	99.4		P	80 - 120
Triclosan Methyl	98.9		P	80 - 120
Trifluralin	98.9		P	80 - 120

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A106337
Included Lab Sample IDs: 2256360

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	101	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A106339
Included Lab Sample IDs: 2256359, 2256364

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

Reference Method: EPA 8321B
Run ID: A106361
Included Lab Sample IDs: 2256373

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	105	114	P/P	60 - 150
Aldicarb	83.9	113	P/P	60 - 150
Aldicarb Sulfone	90.9	100	P/P	50 - 150
Aldicarb Sulfoxide	113	110	P/P	50 - 150
Carbaryl	111	94.3	P/P	60 - 150
Carbofuran	106	107	P/P	50 - 150
Methiocarb	106	116	P/P	50 - 150
Methomyl	102	103	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A106361
Included Lab Sample IDs: 2256373

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Oxamyl	112	96.3	P/P	50 - 150
Propoxur	110	108	P/P	50 - 150

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A106366
Included Lab Sample IDs: 2256360

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	99.2	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A106372
Included Lab Sample IDs: 2256359, 2256360, 2256364

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.5	98.1	P/P	90 - 110
Ammonia-N	98.9	98.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A106395
Included Lab Sample IDs: 2256359, 2256360, 2256364

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	102	103	P/P	90 - 110

Reference Method: EPA 8276
Run ID: A106414
Included Lab Sample IDs: 2256375

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	100		P	80 - 120
Toxaphene	96.6		P	80 - 120

Reference Method: SM 2320 B-2011
Run ID: A106416
Included Lab Sample IDs: 2256357, 2256358, 2256363

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	102	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Run ID: A106416
Included Lab Sample IDs: 2256357, 2256358, 2256363

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	103	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A106423

Included Lab Sample IDs: 2256357, 2256358, 2256363

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

Reference Method: SM 5310 B-2011

Run ID: A106432

Included Lab Sample IDs: 2256359, 2256360, 2256364

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.6	96.8	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A106467

Included Lab Sample IDs: 2256376

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	98.9		P	80 - 120
Alachlor	107		P	80 - 120
Ametryn	108		P	80 - 120
Atrazine	104		P	80 - 120
Atrazine Desethyl	99.8		P	80 - 120
Azinphos Methyl	101		P	80 - 120
Azoxystrobin	97.8		P	80 - 120
Bromacil	97.7		P	80 - 120
Butylate	99.0		P	80 - 120
Caffeine	89.8		P	80 - 120
Carbophenothion	90.1		P	80 - 120
Carfentrazone Ethyl	94.2		P	80 - 120
Chlorpyrifos Ethyl	93.6		P	80 - 120
Chlorpyrifos Methyl	96.0		P	80 - 120
Cyanazine	95.9		P	80 - 120
Demeton	100		P	80 - 120
Diazinon	101		P	80 - 120
Difenoconazole	87.2		P	80 - 120
Dimethenamid	100		P	80 - 120
Disulfoton	94.7		P	80 - 120
Dithiopyr	103		P	80 - 120
EPTC	99.7		P	80 - 120
Ethion	97.5		P	80 - 120
Ethoprop	98.2		P	80 - 120
Fenamiphos	90.9		P	80 - 120
Fenbuconazole	95.3		P	80 - 120
Fipronil	102		P	80 - 120
Fipronil Desulfinyl	99.8		P	80 - 120
Fipronil Sulfide	94.0		P	80 - 120
Fipronil Sulfone	95.5		P	80 - 120
Fluazifop-P-butyl	97.3		P	80 - 120
Fludioxonil	97.9		P	80 - 120
Flumioxazin	93.4		P	80 - 120
Flutolanil	102		P	80 - 120
Fluxapyroxad	96.4		P	80 - 120
Fonofos	96.0		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
 Run ID: A106467
 Included Lab Sample IDs: 2256376

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Hexazinone	98.5		P	80 - 120
Imazalil	94.5		P	80 - 120
Iprodione	101		P	80 - 120
Malathion	90.1		P	80 - 120
Metalaxyl	98.8		P	80 - 120
Metolachlor	102		P	80 - 120
Metribuzin	100		P	80 - 120
Mevinphos	96.3		P	80 - 120
Molinate	99.2		P	80 - 120
Myclobutanil	99.3		P	80 - 120
Naled	91.8		P	80 - 120
Norflurazon	95.6		P	80 - 120
Oxadiazon	103		P	80 - 120
Oxyfluorfen	92.9		P	80 - 120
Parathion Ethyl	95.6		P	80 - 120
Parathion Methyl	97.8		P	80 - 120
Pendimethalin	109		P	80 - 120
Phorate	101		P	80 - 120
Prodiamine	110		P	80 - 120
Prometon	103		P	80 - 120
Prometryn	100		P	80 - 120
Pronamide	95.7		P	80 - 120
Pyriproxyfen	100		P	80 - 120
Simazine	102		P	80 - 120
Sulfentrazone	91.8		P	80 - 120
Tebuconazole	100		P	80 - 120
Terbufos	94.6		P	80 - 120
Terbutylazine	100		P	80 - 120

Reference Method: EPA 8270E
 Run ID: A106470
 Included Lab Sample IDs: 2256376

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

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

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision	MS
							SMP	
EPA 180.1 Rev. 2.0	Turbidity						2.02	
EPA 300.0 Rev. 2.1	Chloride	101		97.7	97.8		0.560	
	Sulfate	100		98.2			0.621	
EPA 350.1 Rev. 2.0	Ammonia-N	99.8		96.4	98.8			1.97
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	107						0.359
EPA 353.2 Rev. 2.0	NO2NO3-N	99.5		97.8	98.4			0.418
	NO2NO3-N	99.5		98.6	98.6			0.0
EPA 365.1 Rev. 2.0	Total-P	105		102	106			2.76
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.0		100	98.7			1.51
EPA 8270E	Acetochlor	92.8	102	112	105	9.38		6.25
	Alachlor	93.5	106	93.9	102	12.5		8.18
	Aldrin	23.3	22.8	32.3	32.4	2.18		0.336
	Alpha-BHC	92.3	89.8	92.7	93.1	2.72		0.392
	Alpha-Chlordane	84.5	82.2	84.8	81.1	2.71		4.38
	Ametryn	101	109	117	118	7.39		0.721
	Atrazine	94.9	103			7.79		3.25
	Atrazine Desethyl	60.7	76.3	48.1	50.7	22.8		2.41
	Azinphos Methyl	97.2	109	121	110	11.5		9.87
	Azoxystrobin	96.9	104	110	107	6.75		2.11
	Beta-BHC	97.4	99.4	101	101	2.07		0.318
	Beta-Cyfluthrin	90.1	101	106	77.8	11.8		23.9
	Bifenthrin	64.6	65.7	47.3	37.2	1.75		13.7
	Bromacil	81.3	93.0			13.5		5.69
	Butylate	46.6	56.8	69.4	55.6	19.9		22.0
	Caffeine	85.0	83.8			1.46		1.03
	Carbophenothion	100	108	101	98.2	7.09		2.73
	Carfentrazone Ethyl	95.2	108	95.8	87.2	12.4		9.49
	Chlorothalonil	134	130	163	148	2.60		9.24
	Chlorpyrifos Ethyl	84.9	98.8	136	94.5	15.2		36.1
	Chlorpyrifos Methyl	92.7	101	99.2	97.9	8.90		1.31
	Cis-Nonachlor	77.5	78.7	88.6	78.0	1.52		12.8
	Cyanazine	116	111	125	116	5.08		6.92
	Cypermethrin	84.8	89.6	116	96.8	5.53		18.4
	Dacthal	94.9	92.5	97.5	85.6	2.56		13.0
	DDD-p,p'	74.8	75.3	83.6	71.9	0.572		15.0
	DDE-p,p'	80.3	77.8	80.5	77.3	3.08		4.06
	DDT-p,p'	74.5	75.7	81.9	83.0	1.72		1.26
	Delta-BHC	109	109	122	116	0.307		4.96
	Deltamethrin	115	115	122	87.3	0.0788		25.5
	Demeton	34.6	38.1	49.7	51.3	9.70		3.06
	Diazinon	90.5	103	101	96.3	12.7		5.23
	Dichlobenil	69.7	68.8	58.6	56.4	1.27		3.91
	Dicofol	79.3	96.0	96.9	81.0	19.0		17.9
	Dieldrin	87.2	84.9	94.7	84.4	2.72		7.03
	Difenoconazole	137	160	172	144	15.1		17.5
	Dimethenamid	74.7	83.8	83.1	80.6	11.5		1.80
	Disulfoton	78.4	85.2	85.4	88.7	8.29		3.90
	Dithiopyr	87.6	101	91.3	90.2	13.9		0.997
	Endosulfan I	87.9	83.7	89.9	84.4	4.94		6.25
	Endosulfan II	88.3	89.6	102	84.4	1.55		19.3
	Endosulfan Sulfate	91.4	97.1	108	86.0	6.07		22.3
	Endrin	81.1	83.1	94.5	82.2	2.43		13.9
	Endrin Aldehyde	74.8	77.5	83.7	70.2	3.50		17.6
	Endrin Ketone	90.8	92.7	103	83.3	2.03		21.3

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						SMP	MS
EPA 8270E	EPTC	47.9	55.4	52.5	40.6	14.6	25.7
	Esfenvalerate	90.8	91.7	94.7	71.8	1.00	21.1
	Ethalfuralin	84.0	81.6	89.6	84.8	2.99	5.50
	Ethion	81.7	96.0	88.7	84.0	16.2	5.35
	Ethoprop	79.5	92.0	98.3	91.3	14.5	7.34
	Fenamiphos	89.2	104	66.9	73.9	14.9	9.98
	Fenbuconazole	96.2	107	106	101	10.2	4.59
	Fenpropathrin	77.5	85.6	98.1	79.8	9.86	20.6
	Fipronil	89.8	102			13.0	2.34
	Fipronil Desulfinyl	96.4	110	91.6	98.8	13.0	4.08
	Fipronil Sulfide	83.8	98.4			16.0	4.75
	Fipronil Sulfone	91.5	88.9			2.97	9.20
	Fluazifop-P-butyl	98.0	110	97.0	97.3	11.4	0.318
	Fludioxonil	88.9	97.3	97.8	90.1	9.07	8.16
	Flumioxazin	162	188	193	171	14.5	10.2
	Flutolanil	85.3	97.5	81.7	78.8	13.3	3.68
	Fluxapyroxad	83.1	91.8	90.2	84.6	10.0	6.36
	Fonofos	80.2	86.3	91.9	95.6	7.44	3.88
	Gamma-BHC	96.0	93.2	96.6	99.1	3.00	2.62
	Gamma-Chlordane	82.0	78.8	76.1	70.0	4.04	7.57
	Heptachlor	78.3	76.5	81.6	78.4	2.40	4.10
	Heptachlor Epoxide	88.5	83.4	80.8	72.8	5.86	9.04
	Hexachlorobenzene	70.9	71.7	75.8	79.2	1.16	4.43
	Hexazinone	94.0	101	106	108	7.34	1.22
	Imazalil	37.7	44.1	62.3	63.3	15.8	1.61
	Iprodione	98.0	112	102	96.7	13.4	5.10
	Kepone	91.3	99.1	103	94.3	8.11	8.91
	Lambda-Cyhalothrin	85.8	85.0	66.0	41.2	0.904	24.1
	Malathion	92.9	105	120	124	11.9	3.59
	Metalaxyl	90.1	103	83.6	91.9	13.5	9.47
	Methoxychlor	88.6	92.8	101	94.5	4.64	7.11
	Metolachlor	91.2	102	95.9	93.8	11.1	1.88
	Metribuzin	83.6	94.4	99.8	102	12.2	1.75
	Mevinphos	78.0	83.8	99.1	86.9	7.14	13.2
	MGK-264	52.0	49.8	59.3	52.0	4.36	13.1
	Mirex	125	132	144	129	5.74	11.2
	Molinate	58.8	66.4	75.9	65.1	12.1	15.4
	Myclobutanil	88.1	96.7	96.4	97.0	9.32	0.656
	Naled	45.0	51.7	57.0	54.7	13.8	4.20
	Norflurazon	86.2	95.9	88.7	85.1	10.7	4.09
	Oxadiazon	83.4	95.9	80.8	82.7	14.0	1.68
	Oxyfluorfen	99.7	114	105	107	13.5	2.20
	Parathion Ethyl	87.0	87.5	91.9	93.3	0.529	1.56
	Parathion Methyl	97.6	102	112	102	4.52	8.98
	Pendimethalin	93.5	93.2	105	106	0.357	1.49
	Permethrin	85.0	87.8	109	91.8	3.25	16.7
	Phenothrin	32.2	34.1	51.8	42.6	5.58	19.5
	Phorate	77.9	81.4	91.8	89.9	4.32	2.06
	Piperonyl Butoxide	88.2	84.9	105	93.9	3.78	11.6
	Prallethrin	44.8	47.3	52.9	48.0	5.49	9.74
	Prodiamine	63.9	84.8	71.0	77.8	28.1	7.97
	Prometon	82.3	94.1			13.4	1.44
	Prometryn	82.6	97.6	78.8	86.3	16.7	9.10
	Pronamide	88.3	100	92.0	99.5	12.9	7.76

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270E	Propiconazole	82.1	92.6			12.1		0.557
	Pyriproxyfen	82.1	98.0	71.7	74.3	17.7		3.48
	Simazine	90.2	97.0	83.6	87.6	7.28		2.28
	Sulfentrazone	80.9	92.2	86.5	93.0	13.0		5.52
	Tau-Fluvalinate	85.2	89.4	109	88.7	4.90		20.5
	Tebuconazole	57.6	64.6	49.0	42.8	11.4		4.54
	Terbufos	97.1	110	111	118	12.7		5.71
	Terbutylazine	91.6	98.6	102	91.5	7.33		10.5
	Tetramethrin	64.9	55.8	81.9	57.9	15.0		34.4
	Trans-Nonachlor	81.5	77.9	81.3	77.4	4.51		4.93
	Triclosan Methyl	86.9	82.7	86.5	81.3	5.04		6.16
	Trifluralin	76.9	78.6	83.4	81.5	2.18		2.31
EPA 8276	Chlordane	86.7	91.1	103	96.5	4.96		6.11
	Toxaphene	88.8	93.5	109	94.9	5.12		14.2
EPA 8321B	2,4-D	104						7.19
	2,4,5-T	98.0		104	87.5			17.4
	3-Hydroxycarbofuran	97.9		84.6	82.5			2.43
	Acesulfame K	83.9		105	77.0			31.2
	Acetaminophen	78.3		97.1	89.2			8.47
	Acetamiprid	75.5		77.8	58.4			28.4
	Afidopyropen	71.5		67.5	6.62			164
	Aldicarb	45.7		79.0	43.7			57.6
	Aldicarb Sulfone	93.8		95.0	93.8			1.33
	Aldicarb Sulfoxide	92.7		43.3	41.5			4.09
	AMPA	97.9		79.8	84.1			5.21
	Bentazon	76.8		64.4	59.5			8.00
	Benzovindiflupyr	84.2		89.4	78.1			13.5
	Carbamazepine	88.8		97.2	89.8			7.89
	Carbaryl	69.7		63.9	65.5			2.45
	Carbofuran	83.2		81.9	79.3			3.30
	Clothianidin	81.4		95.7	99.6			3.92
	Dinotefuran	88.5		114	93.7			19.4
	Diuron	79.9		77.8	71.8			8.07
	Endothall	72.9		102	99.8			1.71
	Fenuron	89.1		88.0	84.8			3.65
	Fluridone	90.7		91.5	81.3			11.8
	Glufosinate	96.7		94.5	100			5.98
	Glyphosate	102		100	100			0.0759
	Hydrocodone	78.0		111	86.8			24.1
	Ibuprofen	77.0		91.3	82.4			10.3
	Imazapyr	110		158	140			11.2
	Imidacloprid	81.6		127	116			8.80
	Linuron	72.2		72.1	61.6			15.8
	Mandestrobin	101		107	88.5			19.3
	MCPP	101		104	93.8			10.4
	Methiocarb	72.0		81.7	81.6			0.0696
	Methomyl	101		97.4	87.6			10.6
	Naproxen	101		80.3	97.0			18.8
	Oxamyl	89.4		78.4	86.6			9.93
	Primidone	90.5		103	98.0			4.52
	Propoxur	82.7		82.7	82.6			0.0824
	Pyraclostrobin	78.0		80.6	75.0			7.11
	Sucralose	92.1		94.2	101			6.69
	Thiamethoxam	90.2		128	117			8.77

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Tolfenpyrad	52.3	54.2	48.1		11.9
	Triclopyr	93.3	105	93.6		11.8
SM 2120 B-2011	Color (true)	101			0.493	
SM 2320 B-2011	Total Alkalinity	103			1.67	
SM 2540 C-2011	TDS				6.20	
SM 4500 F-C-2011	Fluoride	99.5	99.4	101		0.953
SM 5310 B-2011	Organic Carbon	94.8	95.5	96.4		0.640

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2256357, 2256358, 2256363
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2256357, 2256358, 2256363
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2256357, 2256358, 2256363
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2256359, 2256360, 2256364
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2256359, 2256360, 2256364
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2256359, 2256360, 2256364
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2256359, 2256360, 2256364
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2256361, 2256362, 2256365
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2256375
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2256376
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2256375
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2256373
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2256374
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2256357, 2256358, 2256363
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2256357, 2256358, 2256363
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2256357, 2256358, 2256363
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2256357, 2256358, 2256363
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2256357, 2256358, 2256363
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2256359, 2256360, 2256364

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	06/22/2021			06/22/2021 15:04	Sarah A Nixon	2256357, 2256358, 2256363
EPA 300.0 Rev. 2.1	06/22/2021			07/02/2021 16:22	Lipi Saha	2256357
	06/22/2021			07/02/2021 16:34	Lipi Saha	2256358
	06/22/2021			07/02/2021 16:46	Lipi Saha	2256363
EPA 350.1 Rev. 2.0	06/22/2021			06/30/2021 12:48	Roberta Tatti	2256364
	06/22/2021			06/30/2021 13:59	Roberta Tatti	2256359
	06/22/2021			06/30/2021 14:01	Roberta Tatti	2256360
EPA 351.2 Rev. 2.0	06/22/2021	06/29/2021 12:58	Benjamin T. Nordmann	06/30/2021 17:17	Letuzia M De Oliveira	2256359
	06/22/2021	06/29/2021 12:58	Benjamin T. Nordmann	06/30/2021 17:19	Letuzia M De Oliveira	2256360
	06/22/2021	06/29/2021 12:58	Benjamin T. Nordmann	06/30/2021 17:21	Letuzia M De Oliveira	2256364
EPA 353.2 Rev. 2.0	06/22/2021			06/24/2021 09:44	Beverly Y. Sanders	2256359
	06/22/2021			06/24/2021 10:32	Beverly Y. Sanders	2256364
	06/22/2021			06/29/2021 08:25	Beverly Y. Sanders	2256360
EPA 365.1 Rev. 2.0	06/22/2021	06/28/2021 17:29	Madeline Gruver	06/29/2021 10:42	Shengyu Ding	2256359
	06/22/2021	06/28/2021 17:29	Madeline Gruver	06/29/2021 10:43	Shengyu Ding	2256364
	06/22/2021	06/28/2021 17:29	Madeline Gruver	06/30/2021 11:14	Shengyu Ding	2256360
EPA 365.1 Rev. 2.0 dissolved	06/22/2021			06/22/2021 16:27	Ping Hua	2256361
	06/22/2021			06/22/2021 16:28	Ping Hua	2256362
	06/22/2021			06/22/2021 16:29	Ping Hua	2256365
EPA 8270E	06/22/2021	06/24/2021 08:30	Rasheda Ghaffari	06/25/2021 22:42	Michael Poppell	2256375
	06/22/2021	06/28/2021 08:30	Rasheda Ghaffari	06/29/2021 16:19	Vandana T. Nagar	2256376
	06/22/2021	06/28/2021 08:30	Rasheda Ghaffari	07/02/2021 18:12	Vandana T. Nagar	2256376
EPA 8276	06/22/2021	06/24/2021 08:30	Rasheda Ghaffari	07/01/2021 04:54	Michael Poppell	2256375
EPA 8321B	06/22/2021	06/23/2021 09:00	Hoor Shaik	06/25/2021 22:35	Juyoung Kim	2256374
	06/22/2021	06/25/2021 08:00	Pramila Ghimire	06/25/2021 11:57	Juyoung Kim	2256374
	06/22/2021	06/25/2021 08:00	Pramila Ghimire	06/25/2021 20:31	Pramila Ghimire	2256374
	06/22/2021	06/29/2021 08:30	Hoor Shaik	06/30/2021 01:56	Juyoung Kim	2256373
SM 2120 B-2011	06/22/2021			06/22/2021 15:59	Benjamin T. Nordmann	2256357, 2256358
	06/22/2021			06/22/2021 16:00	Benjamin T. Nordmann	2256363
SM 2320 B-2011	06/22/2021			07/01/2021 21:52	Patrick M. Roche	2256357
	06/22/2021			07/01/2021 22:07	Patrick M. Roche	2256358
	06/22/2021			07/01/2021 22:22	Patrick M. Roche	2256363
SM 2540 C-2011	06/22/2021			06/24/2021 14:15	Yijie Li	2256357, 2256358, 2256363
SM 2540 D-2011	06/22/2021			06/24/2021 14:15	Yijie Li	2256357, 2256358, 2256363
SM 4500 F-C-2011	06/22/2021			07/01/2021 21:52	Patrick M. Roche	2256357
	06/22/2021			07/01/2021 22:07	Patrick M. Roche	2256358
	06/22/2021			07/01/2021 22:22	Patrick M. Roche	2256363
SM 5310 B-2011	06/22/2021			06/30/2021 22:55	Madeline Gruver	2256359
	06/22/2021			06/30/2021 23:08	Madeline Gruver	2256360
	06/22/2021			06/30/2021 23:20	Madeline Gruver	2256364