

Chemical Analysis Report

NE-DIST-2020-03-19-02

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

Event Description: **Suwannee Central 2020**

Request ID: **RQ-2020-03-16-17**

Customer: **NE-DIST**

Project ID: **SMP**

Send Reports to:
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8800 Baymeadows Way West
Suite 100
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Attn: Jeremy Parrish

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Certified by: Liang Lin, Environmental Administrator

Date Certified: 14-APR-2020 13:32

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

Case Narrative

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

Results for the following analytical 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: OLUSTEE CREEK AT SR-18

Collection Date/Time: 03/18/2020 09:05

Field ID: 21030071

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2166996	EPA 180.1 Rev. 2.0	Turbidity	1.7		NTU	P381001	
	EPA 300.0 Rev. 2.1	Chloride	11		mg Cl/L	P381909	
		Sulfate	0.51		mg SO4/L	P381910	
	SM 2120 B-2011	Color (true)	410		PCU	P380995	
	SM 2320 B-2011	Total Alkalinity	4.8		mg CaCO3/L	P381413	
	SM 2540 C-2011	TDS	112		mg/L	P381518	
	SM 2540 D-2011	TSS	2	U	mg/L	P381252	
	SM 4500 F-C-2011	Fluoride	0.068	I	mg F/L	P381456	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.013		mg N/L	P381238	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P381282	
2166997	EPA 353.2 Rev. 2.0	NO2NO3-N	0.008	I	mg N/L	P381546	
	EPA 365.1 Rev. 2.0	Total-P	0.18		mg P/L	P381339	
	SM 5310 B-2011	Organic Carbon	43		mg C/L	P381090	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.15		mg P/L	P381026	
	dissolved						
2167015	EPA 8321B	Aldicarb	0.020	U	ug/L	P380944	RPD
		Aldicarb Sulfone	0.0020	U	ug/L	P380944	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P380944	
		Carbaryl	0.0020	U	ug/L	P380944	
		Carbofuran	0.0020	U	ug/L	P380944	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P380944	
		Methiocarb	0.0020	U	ug/L	P380944	
		Methomyl	0.0020	U	ug/L	P380944	
		Oxamyl	0.0020	U	ug/L	P380944	
		Propoxur	0.0020	U	ug/L	P380944	
2167016		2,4-D	0.0020	U	ug/L	P381156	
		Acesulfame K**	0.10	U	ug/L	P380955	
		AMPA**	0.10	U	ug/L	P380955	
		Sucralose**	0.010	U	ug/L	P380955	
		Acetaminophen**	0.0080	U	ug/L	P381156	
		Acetamiprid**	0.0020	U	ug/L	P381156	
		Endothall**	0.25	U	ug/L	P380955	
		Glufosinate**	0.10	U	ug/L	P380955	
		Glyphosate**	0.10	U	ug/L	P380955	
		Afidopyropen**	0.0020	UJ	ug/L	P381156	
		Bentazon	8.0E-04	U	ug/L	P381156	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P381156	
		Carbamazepine**	8.0E-04	U	ug/L	P381156	
		Clothianidin**	0.0020	U	ug/L	P381156	
		Dinotefuran**	0.0020	U	ug/L	P381156	
		Diuron	0.0020	U	ug/L	P381156	
		Fenuron	0.016	U	ug/L	P381156	
		Fluridone**	8.0E-04	U	ug/L	P381156	
		Imazapyr**	0.095		ug/L	P381156	

Field ID: 21030071

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2167016	EPA 8321B	Hydrocodone**	0.0020	U	ug/L	P381156	
		Ibuprofen**	0.020	U	ug/L	P381156	
		Imidacloprid	0.0020	U	ug/L	P381156	
		Linuron	0.0040	U	ug/L	P381156	
		Mandestrobin**	0.0020	UJ	ug/L	P381156	
		MCP	0.0020	U	ug/L	P381156	
		Naproxen**	0.0080	U	ug/L	P381156	
		Primidone**	0.0040	U	ug/L	P381156	
		Pyraclostrobin**	0.0020	U	ug/L	P381156	
		Thiamethoxam**	0.0020	U	ug/L	P381156	
		Tolfenpyrad**	0.0020	U	ug/L	P381156	
		Triclopyr**	0.0040	U	ug/L	P381156	
2167018	EPA 8270E	Aldrin	4.1	U	ng/L	P381436	MS
		Alpha-BHC	2.1	U	ng/L	P381436	
		Alpha-Chlordane	1.0	U	ng/L	P381436	
		Beta-BHC	10	U	ng/L	P381436	
		Beta-Cyfluthrin**	15	U	ng/L	P381436	
		Bifenthrin**	4.1	U	ng/L	P381436	
		Delta-BHC	8.3	U	ng/L	P381436	
		Gamma-BHC	8.3	U	ng/L	P381436	
		Chlorothalonil	2.1	UJ	ng/L	P381436	CCV
		Cis-Nonachlor**	1.0	U	ng/L	P381436	
		Cypermethrin	21	U	ng/L	P381436	
		Dacthal**	1.0	U	ng/L	P381436	
		DDD-p,p'	6.2	U	ng/L	P381436	
		DDE-p,p'	6.2	U	ng/L	P381436	
		DDT-p,p'	7.2	U	ng/L	P381436	
		Dicofol	31	U	ng/L	P381436	
		Dieldrin	4.1	U	ng/L	P381436	
		Endosulfan I	4.1	U	ng/L	P381436	
		Endosulfan II	4.1	U	ng/L	P381436	
		Endosulfan Sulfate	2.1	U	ng/L	P381436	
		Endrin	2.1	U	ng/L	P381436	
		Endrin Aldehyde	2.1	U	ng/L	P381436	
		Endrin Ketone	2.1	U	ng/L	P381436	
		Ethalfuralin**	3.1	U	ng/L	P381436	MS
		Gamma-Chlordane	1.0	U	ng/L	P381436	
		Heptachlor	1.5	U	ng/L	P381436	
		Heptachlor Epoxide	2.1	U	ng/L	P381436	
		Hexachlorobenzene	2.1	U	ng/L	P381436	
		Lambda-Cyhalothrin**	15	U	ng/L	P381436	
		Methoxychlor	4.1	U	ng/L	P381436	MS
		Mirex	2.1	U	ng/L	P381436	
		Permethrin	10	U	ng/L	P381436	
		Phenothrin**	31	UJ	ng/L	P381436	LCS, MS

Field ID: 21030071

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2167018	EPA 8270E	Prallethrin**	31	U	ng/L	P381436	MS
		Trans-Nonachlor**	1.0	U	ng/L	P381436	
		Trifluralin	2.6	U	ng/L	P381436	
		Chlordane	8.8	I	ng/L	P381436	
		Toxaphene	31	U	ng/L	P381436	
2167019	EPA 8270E	Acetochlor	0.24	U	ng/L	P381247	RPD
		Alachlor	0.24	U	ng/L	P381247	
		Ametryn	0.57	U	ng/L	P381247	
		Atrazine	0.24	U	ng/L	P381247	
		Atrazine Desethyl	1.4	U	ng/L	P381247	
		Azinphos Methyl	4.8	U	ng/L	P381247	
		Bromacil	0.48	U	ng/L	P381247	
		Butylate	0.38	U	ng/L	P381247	
		Carbophenothion	0.48	U	ng/L	P381247	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P381247	
		Chlorpyrifos Methyl	0.048	U	ng/L	P381247	
		Cyanazine	3.1	U	ng/L	P381247	
		Demeton	6.7	U	ng/L	P381247	
		Diazinon	0.12	U	ng/L	P381247	
		Dimethenamid**	0.095	U	ng/L	P381247	
		Disulfoton	0.48	U	ng/L	P381247	
		Dithiopyr**	0.095	U	ng/L	P381247	
		EPTC	1.2	U	ng/L	P381247	
		Ethion	0.14	U	ng/L	P381247	
		Ethoprop	0.095	U	ng/L	P381247	
		Fenamiphos	0.48	U	ng/L	P381247	
		Fipronil	0.24	U	ng/L	P381247	
		Fipronil Desulfinyl**	0.12	U	ng/L	P381247	
		Fipronil Sulfide	0.14	U	ng/L	P381247	
		Fipronil Sulfone	0.14	U	ng/L	P381247	
		Flumioxazin**	1.7	U	ng/L	P381247	
		Fonofos	0.19	U	ng/L	P381247	
		Hexazinone	0.48	U	ng/L	P381247	
		Imazalil**	0.71	UJ	ng/L	P381247	LCS
		Malathion	0.33	U	ng/L	P381247	
		Metalaxyl	0.71	U	ng/L	P381247	
		Metolachlor	0.48	U	ng/L	P381247	
		Metribuzin	3.1	U	ng/L	P381247	
		Mevinphos	0.48	U	ng/L	P381247	
		Molinate	0.29	U	ng/L	P381247	
		Naled**	1.4	U	ng/L	P381247	
		Norflurazon	0.48	U	ng/L	P381247	
		Oxadiazon**	0.095	UQ	ng/L	P381567	
		Parathion Ethyl	0.24	U	ng/L	P381247	
		Parathion Methyl	0.52	U	ng/L	P381247	

Field ID: 21030071

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2167019	EPA 8270E	Pendimethalin	0.95	U	ng/L	P381247	
		Phorate	0.24	U	ng/L	P381247	
		Prodiamine**	0.17	U	ng/L	P381247	
		Prometon	0.86	U	ng/L	P381247	
		Prometryn	0.19	U	ng/L	P381247	
		Pronamide**	0.14	U	ng/L	P381247	
		Propiconazole**	0.48	U	ng/L	P381247	
		Simazine	0.48	U	ng/L	P381247	
		Sulfentrazone**	0.48	U	ng/L	P381247	
		Tebuconazole**	0.48	U	ng/L	P381247	
		Terbufos	0.095	U	ng/L	P381247	
		Terbutylazine	0.40	U	ng/L	P381247	RPD

Ref. Method and Comment:

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

EPA 8321B: J - second source check standards for some analytes were not available for analysis.

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

EPA 8270E: MS accuracy for some analytes not assessed due to high content of this parameter in the sample spiked. Sample expired for preparation for oxadiazon due to need for re-extraction. Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: Rocky Creek at 156th av

Collection Date/Time: 03/18/2020 09:55

Field ID: G1NE0020

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2166999	EPA 180.1 Rev. 2.0	Turbidity	1.9		NTU	P381001	
	EPA 300.0 Rev. 2.1	Chloride	18		mg Cl/L	P381909	
		Sulfate	1.4		mg SO4/L	P381910	
	SM 2120 B-2011	Color (true)	300		PCU	P380995	
	SM 2320 B-2011	Total Alkalinity	34		mg CaCO3/L	P381413	
	SM 2540 C-2011	TDS	143		mg/L	P381519	
	SM 2540 D-2011	TSS	3	I	mg/L	P381253	
	SM 4500 F-C-2011	Fluoride	0.11		mg F/L	P381456	
2167000	EPA 350.1 Rev. 2.0	Ammonia-N	0.015		mg N/L	P381238	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P381282	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P381546	
	EPA 365.1 Rev. 2.0	Total-P	0.22		mg P/L	P381339	
	SM 5310 B-2011	Organic Carbon	34		mg C/L	P381090	
2167001	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.16		mg P/L	P381026	
2167017	EPA 8321B	2,4-D	0.0020	U	ug/L	P381156	
		Acesulfame K**	0.10	U	ug/L	P380955	
		AMPA**	0.10	U	ug/L	P380955	
		Sucralose**	0.010	U	ug/L	P380955	
		Acetaminophen**	0.0080	U	ug/L	P381156	
		Acetamiprid**	0.0020	U	ug/L	P381156	
		Endothall**	0.25	U	ug/L	P380955	
		Glufosinate**	0.10	U	ug/L	P380955	
		Glyphosate**	0.10	U	ug/L	P380955	
		Afidopyropen**	0.0020	UJ	ug/L	P381156	
		Bentazon	8.0E-04	U	ug/L	P381156	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P381156	
		Carbamazepine**	8.0E-04	U	ug/L	P381156	
		Clothianidin**	0.0020	U	ug/L	P381156	
		Dinotefuran**	0.0020	U	ug/L	P381156	
		Diuron	0.0020	U	ug/L	P381156	
		Fenuron	0.016	U	ug/L	P381156	
		Fluridone**	8.0E-04	U	ug/L	P381156	
		Imazapyr**	0.0085	I	ug/L	P381156	
		Hydrocodone**	0.0020	U	ug/L	P381156	
		Ibuprofen**	0.020	U	ug/L	P381156	
		Imidacloprid	0.0020	U	ug/L	P381156	
		Linuron	0.0040	U	ug/L	P381156	
		Mandestrobin**	0.0020	UJ	ug/L	P381156	
		MCP	0.0020	U	ug/L	P381156	
		Naproxen**	0.0080	U	ug/L	P381156	
		Primidone**	0.0040	U	ug/L	P381156	
		Pyraclostrobin**	0.0020	U	ug/L	P381156	
		Thiamethoxam**	0.0020	U	ug/L	P381156	

Field ID: G1NE0020

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2167017	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P381156	
		Triclopyr**	0.0040	U	ug/L	P381156	
2167020	EPA 200.7 Rev. 4.4	Barium	10.8		ug/L	P381219	
		Calcium	15.4		mg/L	P381219	
		Iron	1.02E+03		ug/L	P381219	
		Magnesium	5.18		mg/L	P381219	
		Potassium	1.7		mg/L	P381219	
		Sodium	8.2		mg/L	P381219	
		Zinc	5.0	U	ug/L	P381219	
	EPA 200.8 Rev. 5.4	Aluminum	299		ug/L	P381219	
		Antimony	0.053	I	ug/L	P381219	
		Arsenic	1.10		ug/L	P381219	
		Boron**	18.1		ug/L	P381219	
		Cadmium	0.020	U	ug/L	P381219	
		Chromium	1.3	I	ug/L	P381219	
		Copper	0.40	U	ug/L	P381219	
		Lead	0.39	I	ug/L	P381219	
		Nickel	0.79	I	ug/L	P381219	
		Selenium	0.20	U	ug/L	P381219	
		Silver	0.010	U	ug/L	P381219	
		Thallium	0.10	U	ug/L	P381219	
	SM 2340B	Hardness	59.7		mg/L	P381219	

Ref. Method and Comment:

EPA 8321B: J - second source check standards for some analytes were not available for analysis.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P381001

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P381219

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
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: P381219

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	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: P381909

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P381910

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P381238

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P381282

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P381546

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P381339

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P381026

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

Reference Method: EPA 8270E
Batch ID: P381247

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	5.0	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Carbophenothion	0.50	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Cyanazine	3.2	U	ng/L
Demeton	7.0	U	ng/L
Diazinon	0.12	U	ng/L
Dimethenamid	0.10	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.10	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.50	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
Flumioxazin	1.8	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P381247

Component	Result	Code	Units
Imazalil	0.75	U	ng/L
Malathion	0.35	U	ng/L
Metaxyl	0.75	U	ng/L
Metolachlor	0.50	U	ng/L
Metribuzin	3.2	U	ng/L
Mevinphos	0.50	U	ng/L
Molinate	0.30	U	ng/L
Naled	1.5	U	ng/L
Norflurazon	0.50	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.25	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
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: P381436

Component	Result	Code	Units
Aldrin	4.0	U	ng/L
Alpha-BHC	2.0	U	ng/L
Alpha-Chlordane	1.0	U	ng/L
Beta-BHC	10	U	ng/L
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'	6.0	U	ng/L
DDE-p,p'	6.0	U	ng/L
DDT-p,p'	7.0	U	ng/L
Delta-BHC	8.0	U	ng/L
Dicofol	30	U	ng/L
Dieldrin	4.0	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
Ethalfuralin	3.0	U	ng/L
Gamma-BHC	8.0	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P381436

Component	Result	Code	Units
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
Lambda-Cyhalothrin	15	U	ng/L
Methoxychlor	4.0	U	ng/L
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L
Phenothrin	30	U	ng/L
Prallethrin	30	U	ng/L
Trans-Nonachlor	1.0	U	ng/L
Trifluralin	2.5	U	ng/L

Reference Method: EPA 8270E
Batch ID: P381567

Component	Result	Code	Units
Oxadiazon	0.10	U	ng/L

Reference Method: EPA 8276
Batch ID: P381436

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

Reference Method: EPA 8321B
Batch ID: P380944

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

Reference Method: EPA 8321B
Batch ID: P380955

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P381156

Component	Result	Code	Units
2,4-D	0.0020	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: SM 2120 B-2011
Batch ID: P380995

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P381413

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

Reference Method: SM 2540 C-2011
Batch ID: P381518

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-2011
Batch ID: P381519

Component	Result	Code	Units
TDS	15	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 D-2011
Batch ID: P381252

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P381253

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P381456

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P381090

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: P381219

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	98.4		P	85 - 115
Calcium	103		P	85 - 115
Iron	104		P	85 - 115
Magnesium	111		P	85 - 115
Potassium	104		P	85 - 115
Sodium	106		P	85 - 115
Zinc	99.9		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P381219

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	95.2		P	85 - 115
Antimony	93.3		P	85 - 115
Arsenic	101		P	85 - 115
Boron	102		P	85 - 115
Cadmium	97.1		P	85 - 115
Chromium	96.5		P	85 - 115
Copper	96.2		P	85 - 115
Lead	99.9		P	85 - 115
Nickel	101		P	85 - 115
Selenium	95.5		P	85 - 115
Silver	102		P	85 - 115
Thallium	104		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P381909

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	99.1		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P381910

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	99.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P381238

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P381282

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	96.9		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P381546

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P381339

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: P381026

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

Reference Method: EPA 8270E
 Batch ID: P381247

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	89.2	97.7	P/P	71 - 122
Alachlor	85.8	93.5	P/P	70 - 121
Ametryn	95.4	99.5	P/P	49 - 137
Atrazine	101	109	P/P	76 - 125
Atrazine Desethyl	80.3	82.8	P/P	31 - 144
Azinphos Methyl	116	137	P/P	67 - 150
Bromacil	69.8	80.8	P/P	36 - 121
Butylate	66.4	73.0	P/P	33 - 88.0
Carbophenothion	89.8	111	P/P	50 - 150
Chlorpyrifos Ethyl	91.4	110	P/P	73 - 117
Chlorpyrifos Methyl	94.0	108	P/P	68 - 121
Cyanazine	100	111	P/P	20 - 250
Demeton	63.6	76.3	P/P	30 - 123
Diazinon	84.6	96.0	P/P	70 - 128
Dimethenamid	86.4	93.3	P/P	66 - 122
Disulfoton	61.2	74.1	P/P	46 - 124
Dithiopyr	83.2	91.2	P/P	69 - 122
EPTC	61.0	64.0	P/P	31 - 90.0
Ethion	74.5	89.1	P/P	45 - 135
Ethoprop	89.5	99.3	P/P	59 - 118
Fenamiphos	80.5	96.9	P/P	30 - 136
Fipronil	83.1	95.9	P/P	57 - 127
Fipronil Desulfinyl	86.0	96.9	P/P	51 - 122
Fipronil Sulfide	79.9	95.4	P/P	57 - 119
Fipronil Sulfone	75.1	94.5	P/P	51 - 119
Flumioxazin	138	167	P/P	70 - 200
Fonofos	86.5	97.3	P/P	60 - 120
Hexazinone	89.2	97.5	P/P	57 - 142
Imazalil	34.6	42.4	F/F	50 - 150
Malathion	104	123	P/P	67 - 128
Metaxyl	84.2	95.5	P/P	21 - 148
Metolachlor	83.3	92.0	P/P	70 - 120
Metribuzin	116	128	P/P	20 - 253
Mevinphos	86.4	99.7	P/P	47 - 116

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P381247

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Molinate	73.4	80.7	P/P	41 - 99.0
Naled	63.6	71.8	P/P	40 - 130
Norflurazon	86.3	101	P/P	54 - 127
Parathion Ethyl	86.3	96.7	P/P	71 - 113
Parathion Methyl	103	109	P/P	73 - 129
Pendimethalin	79.5	90.9	P/P	63 - 130
Phorate	86.9	102	P/P	48 - 118
Prodiamine	41.7	44.7	P/P	20 - 144
Prometon	81.5	88.7	P/P	53 - 120
Prometryn	81.8	90.1	P/P	63 - 119
Pronamide	94.5	103	P/P	50 - 150
Propiconazole	76.0	91.8	P/P	50 - 150
Simazine	98.7	111	P/P	77 - 129
Sulfentrazone	54.8	64.0	P/P	50 - 150
Tebuconazole	49.5	56.3	P/P	20 - 118
Terbufos	86.0	99.5	P/P	61 - 119
Terbutylazine	92.3	99.8	P/P	75 - 119

Reference Method: EPA 8270E
Batch ID: P381436

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	45.9	46.6	P/P	20 - 87.0
Alpha-BHC	99.0	95.9	P/P	65 - 142
Alpha-Chlordane	85.2	84.6	P/P	58 - 106
Beta-BHC	108	108	P/P	65 - 179
Beta-Cyfluthrin	81.9	93.8	P/P	50 - 150
Bifenthrin	91.8	93.6	P/P	38 - 128
Chlorothalonil	168	150	P/P	20 - 214
Cis-Nonachlor	87.8	89.7	P/P	56 - 113
Cypermethrin	94.6	97.5	P/P	37 - 130
Dacthal	96.1	97.2	P/P	50 - 150
DDD-p,p'	96.8	99.4	P/P	66 - 119
DDE-p,p'	86.6	87.0	P/P	53 - 108
DDT-p,p'	87.8	87.7	P/P	57 - 133
Delta-BHC	116	114	P/P	68 - 187
Dicofol	80.3	80.3	P/P	66 - 123
Dieldrin	91.8	93.7	P/P	65 - 111
Endosulfan I	105	101	P/P	65 - 115
Endosulfan II	103	107	P/P	68 - 133
Endosulfan Sulfate	104	105	P/P	62 - 127
Endrin	84.6	85.5	P/P	64 - 122
Endrin Aldehyde	104	104	P/P	61 - 132
Endrin Ketone	107	110	P/P	66 - 120
Ethalfuralin	78.5	77.4	P/P	57 - 127
Gamma-BHC	108	107	P/P	71 - 158
Gamma-Chlordane	83.5	83.9	P/P	53 - 106
Heptachlor	77.0	78.1	P/P	45 - 96.0
Heptachlor Epoxide	89.9	91.3	P/P	64 - 109
Hexachlorobenzene	77.4	77.4	P/P	46 - 103
Lambda-Cyhalothrin	91.7	93.1	P/P	50 - 150
Methoxychlor	92.4	93.0	P/P	69 - 149

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P381436

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Mirex	69.3	68.8	P/P	31 - 90.0
Permethrin	87.6	87.0	P/P	41 - 108
Phenothrin	45.9	48.3	F/F	50 - 150
Prallethrin	48.6	48.7	P/P	40 - 140
Trans-Nonachlor	80.7	80.0	P/P	50 - 107
Trifluralin	82.2	80.8	P/P	58 - 119

Reference Method: EPA 8270E
Batch ID: P381567

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Oxadiazon	93.0	113	P/P	65 - 122

Reference Method: EPA 8276
Batch ID: P381436

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	90.8	90.6	P/P	47 - 119
Toxaphene	110	108	P/P	41 - 112

Reference Method: EPA 8321B
Batch ID: P380944

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	87.9		P	30 - 160
Aldicarb	49.5		P	30 - 160
Aldicarb Sulfone	85.7		P	30 - 160
Aldicarb Sulfoxide	73.6		P	30 - 160
Carbaryl	70.1		P	30 - 160
Carbofuran	62.6		P	30 - 160
Methiocarb	60.0		P	30 - 160
Methomyl	78.4		P	30 - 160
Oxamyl	72.8		P	30 - 160
Propoxur	69.0		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P380955

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	111		P	40 - 150
AMPA	99.1		P	40 - 150
Endothall	85.9		P	40 - 150
Glufosinate	118		P	40 - 150
Glyphosate	125		P	40 - 140
Sucralose	99.0		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P381156

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	115		P	30 - 160
Acetaminophen	86.2		P	30 - 160

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P381156

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetamiprid	98.6		P	30 - 160
Afidopyropen	110		P	30 - 160
Bentazon	87.3		P	30 - 160
Benzovindiflupyr	82.6		P	30 - 160
Carbamazepine	118		P	30 - 160
Clothianidin	106		P	30 - 160
Dinotefuran	94.5		P	30 - 160
Diuron	105		P	30 - 160
Fenuron	110		P	30 - 160
Fluridone	88.9		P	30 - 160
Hydrocodone	94.4		P	30 - 160
Ibuprofen	89.9		P	30 - 160
Imazapyr	87.2		P	30 - 160
Imidacloprid	107		P	30 - 160
Linuron	80.1		P	30 - 160
Mandestrobin	89.2		P	30 - 160
MCPP	137		P	30 - 160
Naproxen	71.5		P	30 - 160
Primidone	103		P	30 - 160
Pyraclostrobin	76.9		P	30 - 160
Thiamethoxam	104		P	30 - 160
Tolfenpyrad	51.8		P	30 - 160
Triclopyr	104		P	30 - 160

Reference Method: SM 2120 B-2011
Batch ID: P380995

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	97.6		P	85 - 115

Reference Method: SM 2320 B-2011
Batch ID: P381413

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	104		P	98 - 107

Reference Method: SM 4500 F-C-2011
Batch ID: P381456

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.9		P	92 - 104

Reference Method: SM 5310 B-2011
Batch ID: P381090

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	102		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P381219

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2166729	Barium	97.0		P	80 - 120
2166729	Calcium	101		P	80 - 120
2166729	Iron	104		P	80 - 120
2166729	Magnesium	102		P	80 - 120
2166729	Potassium	102		P	80 - 120
2166729	Sodium	96.5		P	80 - 120
2166729	Zinc	100		P	80 - 120
2167130	Barium	97.7	97.9	P/P	80 - 120
2167130	Calcium	100		P	80 - 120
2167130	Iron	104	102	P/P	80 - 120
2167130	Magnesium	107	105	P/P	80 - 120
2167130	Potassium	108	108	P/P	80 - 120
2167130	Sodium	106	105	P/P	80 - 120
2167130	Zinc	100	101	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P381219

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2166729	Aluminum	92.1		P	80 - 120
2166729	Antimony	94.2		P	80 - 120
2166729	Arsenic	100		P	80 - 120
2166729	Boron	102		P	80 - 120
2166729	Cadmium	98.3		P	80 - 120
2166729	Chromium	97.6		P	80 - 120
2166729	Copper	95.0		P	80 - 120
2166729	Lead	98.4		P	80 - 120
2166729	Nickel	98.1		P	80 - 120
2166729	Selenium	92.0		P	80 - 120
2166729	Silver	101		P	80 - 120
2166729	Thallium	103		P	80 - 120
2167130	Aluminum	93.6	93.0	P/P	80 - 120
2167130	Antimony	95.3	97.0	P/P	80 - 120
2167130	Arsenic	99.9	104	P/P	80 - 120
2167130	Boron	103	105	P/P	80 - 120
2167130	Cadmium	98.9	102	P/P	80 - 120
2167130	Chromium	99.1	99.5	P/P	80 - 120
2167130	Copper	95.3	97.5	P/P	80 - 120
2167130	Lead	99.9	99.9	P/P	80 - 120
2167130	Nickel	97.7	99.7	P/P	80 - 120
2167130	Selenium	93.5	99.3	P/P	80 - 120
2167130	Silver	102	101	P/P	80 - 120
2167130	Thallium	104	98.8	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P381909

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2167748	Chloride	99.1		P	90 - 110
2168022	Chloride	96.6		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P381910

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2167748	Sulfate	98.8		P	90 - 110
2168022	Sulfate	95.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P381238

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2166912	Ammonia-N	100	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P381282

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2167030	Kjeldahl Nitrogen	96.8	106	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P381546

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2167028	NO2NO3-N	101	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P381339

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2166997	Total-P	107	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P381026

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2166913	O-Phosphate-P	101	102	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P381247

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2166988	Acetochlor	103	81.1	P/P	68 - 126
2166988	Alachlor	100	74.2	P/P	66 - 125
2166988	Atrazine Desethyl	113	75.7	P/P	13 - 161
2166988	Azinphos Methyl	136	132	P/P	54 - 162
2166988	Bromacil	96.8	71.3	P/P	34 - 144
2166988	Butylate	64.1	64.2	P/P	16 - 92.0
2166988	Carbophenothion	80.8	76.9	P/P	50 - 150
2166988	Chlorpyrifos Ethyl	94.8	81.7	P/P	63 - 124
2166988	Chlorpyrifos Methyl	97.6	85.6	P/P	64 - 125
2166988	Cyanazine	97.6	81.6	P/P	13 - 245
2166988	Demeton	105	87.5	P/P	20 - 154
2166988	Diazinon	102	83.5	P/P	66 - 141
2166988	Dimethenamid	90.6	73.2	P/P	50 - 130
2166988	Disulfoton	84.5	76.2	P/P	55 - 130
2166988	Dithiopyr	93.0	75.8	P/P	66 - 122

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P381247

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2166988	EPTC	57.2	43.3	P/P	15 - 93.0
2166988	Ethion	38.7	40.0	P/P	15 - 148
2166988	Ethoprop	101	85.5	P/P	59 - 126
2166988	Fenamiphos	65.9	62.5	P/P	39 - 137
2166988	Fipronil	87.8	71.9	P/P	47 - 131
2166988	Fipronil Desulfinyl	90.5	71.6	P/P	43 - 121
2166988	Fipronil Sulfide	80.0	69.4	P/P	29 - 134
2166988	Fipronil Sulfone	79.3	71.5	P/P	19 - 131
2166988	Flumioxazin	160	138	P/P	70 - 200
2166988	Fonofos	95.9	81.5	P/P	62 - 128
2166988	Hexazinone	109	90.9	P/P	58 - 154
2166988	Imazalil	94.2	73.5	P/P	50 - 150
2166988	Malathion	103	93.7	P/P	54 - 135
2166988	Metalaxyl	93.0	79.0	P/P	46 - 136
2166988	Metolachlor	91.3	67.7	P/P	62 - 126
2166988	Metribuzin	148	113	P/P	44 - 277
2166988	Mevinphos	98.1	81.8	P/P	44 - 135
2166988	Molinate	81.5	66.9	P/P	31 - 104
2166988	Naled	73.8	63.4	P/P	40 - 130
2166988	Norflurazon	89.0	72.7	P/P	32 - 134
2166988	Parathion Ethyl	95.0	83.7	P/P	67 - 120
2166988	Parathion Methyl	121	101	P/P	70 - 140
2166988	Pendimethalin	93.7	83.6	P/P	59 - 145
2166988	Phorate	118	99.5	P/P	52 - 127
2166988	Prodiamine	59.6	53.1	P/P	11 - 157
2166988	Prometon	85.3	68.8	P/P	55 - 130
2166988	Prometryn	89.3	74.2	P/P	55 - 127
2166988	Pronamide	111	88.7	P/P	50 - 150
2166988	Propiconazole	74.8	61.4	P/P	50 - 150
2166988	Simazine	124	96.7	P/P	58 - 159
2166988	Sulfentrazone	80.8	66.9	P/P	50 - 150
2166988	Tebuconazole	30.2	27.1	P/P	10 - 122
2166988	Terbufos	101	87.6	P/P	65 - 131
2166988	Terbutylazine	99.3	72.1	P/P	63 - 131

Reference Method: EPA 8270E
Batch ID: P381436

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2167053	Aldrin	13.1	13.1	F/F	32 - 82.0
2167053	Alpha-BHC	98.6	99.6	P/P	68 - 157
2167053	Alpha-Chlordane	87.4	85.2	P/P	54 - 108
2167053	Beta-BHC	120	123	P/P	54 - 200
2167053	Beta-Cyfluthrin	90.1	101	P/P	50 - 150
2167053	Bifenthrin	101	99.9	P/P	49 - 124
2167053	Chlorothalonil	251	231	P/P	10 - 289
2167053	Cis-Nonachlor	92.6	94.2	P/P	53 - 112
2167053	Cypermethrin	99.9	112	P/P	43 - 141
2167053	Dacthal	101	99.5	P/P	50 - 150
2167053	DDD-p,p'	101	104	P/P	58 - 125
2167053	DDE-p,p'	89.4	89.1	P/P	50 - 108
2167053	DDT-p,p'	88.9	87.3	P/P	52 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P381436

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2167053	Delta-BHC	130	135	P/P	61 - 228
2167053	Dicofol	82.9	82.4	P/P	59 - 130
2167053	Dieldrin	108	108	P/P	57 - 121
2167053	Endosulfan I	108	106	P/P	62 - 123
2167053	Endosulfan II	111	109	P/P	48 - 163
2167053	Endosulfan Sulfate	113	107	P/P	63 - 132
2167053	Endrin	92.5	93.2	P/P	58 - 128
2167053	Endrin Aldehyde	98.2	96.6	P/P	44 - 126
2167053	Endrin Ketone	112	111	P/P	68 - 127
2167053	Ethalfuralin	1.11	1.31	F/F	55 - 131
2167053	Gamma-BHC	109	113	P/P	54 - 206
2167053	Gamma-Chlordane	84.0	82.7	P/P	52 - 105
2167053	Heptachlor	75.8	73.4	P/P	47 - 94.0
2167053	Heptachlor Epoxide	95.2	92.7	P/P	61 - 113
2167053	Hexachlorobenzene	75.4	76.0	P/P	45 - 100
2167053	Lambda-Cyhalothrin	98.9	104	P/P	50 - 150
2167053	Methoxychlor	34.4	34.8	F/F	63 - 153
2167053	Mirex	74.4	76.4	P/P	38 - 90.0
2167053	Permethrin	82.0	91.6	P/P	45 - 112
2167053	Phenothrin	5.38	5.20	F/F	50 - 150
2167053	Prallethrin	4.87	5.05	F/F	40 - 140
2167053	Trans-Nonachlor	79.8	77.9	P/P	50 - 103
2167053	Trifluralin	82.8	81.9	P/P	57 - 122

Reference Method: EPA 8270E

Batch ID: P381567

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2168846	Oxadiazon	87.2	98.1	P/P	55 - 123

Reference Method: EPA 8276

Batch ID: P381436

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2166579	Chlordane	71.1	73.4	P/P	34 - 129
2166579	Toxaphene	104	103	P/P	26 - 123

Reference Method: EPA 8321B

Batch ID: P380944

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2165513	3-Hydroxycarbofuran	91.6	81.4	P/P	30 - 160
2165513	Aldicarb	89.3	65.2	P/P	30 - 160
2165513	Aldicarb Sulfone	94.7	93.9	P/P	30 - 160
2165513	Aldicarb Sulfoxide	37.0	38.8	P/P	30 - 160
2165513	Carbaryl	73.7	66.7	P/P	30 - 160
2165513	Carbofuran	67.1	63.0	P/P	30 - 160
2165513	Methiocarb	66.1	57.6	P/P	30 - 160
2165513	Methomyl	91.1	83.7	P/P	30 - 160
2165513	Oxamyl	90.1	89.9	P/P	30 - 160
2165513	Propoxur	73.9	60.2	P/P	30 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
 Batch ID: P380955

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2166972	Acesulfame K	140	139	P/P	40 - 150
2166972	AMPA	103	94.4	P/P	40 - 150
2166972	Endothall	101	97.2	P/P	40 - 150
2166972	Glufosinate	114	106	P/P	40 - 150
2166972	Glyphosate	113	117	P/P	40 - 140
2166972	Sucralose	87.8	92.5	P/P	40 - 150

Reference Method: EPA 8321B
 Batch ID: P381156

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2166972	2,4-D	128	133	P/P	30 - 160
2166972	Acetaminophen	103	107	P/P	30 - 160
2166972	Acetamiprid	105	116	P/P	30 - 160
2166972	Afidopyropen	110	114	P/P	30 - 160
2166972	Bentazon	64.4	64.4	P/P	30 - 160
2166972	Benzovindiflupyr	83.4	77.5	P/P	30 - 160
2166972	Carbamazepine	105	102	P/P	30 - 160
2166972	Clothianidin	121	125	P/P	30 - 160
2166972	Dinotefuran	140	123	P/P	30 - 160
2166972	Diuron	96.7	97.9	P/P	30 - 160
2166972	Fenuron	81.4	85.4	P/P	30 - 160
2166972	Fluridone	88.0	86.0	P/P	30 - 160
2166972	Hydrocodone	122	118	P/P	30 - 160
2166972	Ibuprofen	86.1	78.5	P/P	30 - 160
2166972	Imazapyr	121	119	P/P	30 - 160
2166972	Imidacloprid	159	159	P/P	30 - 160
2166972	Linuron	78.2	77.0	P/P	30 - 160
2166972	Mandestrobin	86.5	86.6	P/P	30 - 160
2166972	MCP	143	147	P/P	30 - 160
2166972	Naproxen	73.9	89.0	P/P	30 - 160
2166972	Primidone	120	110	P/P	30 - 160
2166972	Pyraclostrobin	87.9	85.6	P/P	30 - 160
2166972	Thiamethoxam	157	160	P/P	30 - 160
2166972	Tolfenpyrad	55.1	56.8	P/P	30 - 160
2166972	Triclopyr	112	117	P/P	30 - 160

Reference Method: SM 4500 F-C-2011
 Batch ID: P381456

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2166472	Fluoride	98.9	99.5	P/P	91 - 105

Reference Method: SM 5310 B-2011
 Batch ID: P381090

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2166912	Organic Carbon	101	102	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P381001

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166886	Turbidity	2.81	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P381219

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2167130	Barium	0.160	Spike	P	0 - 20
2167130	Calcium	0.250	Spike	P	0 - 20
2167130	Iron	1.91	Spike	P	0 - 20
2167130	Magnesium	1.55	Spike	P	0 - 20
2167130	Potassium	0.199	Spike	P	0 - 20
2167130	Sodium	0.316	Spike	P	0 - 20
2167130	Zinc	0.424	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P381219

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2167130	Aluminum	0.550	Spike	P	0 - 20
2167130	Antimony	1.78	Spike	P	0 - 20
2167130	Arsenic	3.94	Spike	P	0 - 20
2167130	Boron	1.79	Spike	P	0 - 20
2167130	Cadmium	3.57	Spike	P	0 - 20
2167130	Chromium	0.341	Spike	P	0 - 20
2167130	Copper	2.23	Spike	P	0 - 20
2167130	Lead	0.0336	Spike	P	0 - 20
2167130	Nickel	2.00	Spike	P	0 - 20
2167130	Selenium	6.02	Spike	P	0 - 20
2167130	Silver	0.556	Spike	P	0 - 20
2167130	Thallium	4.91	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P381909

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2167748	Chloride	0.0160	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P381910

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2167748	Sulfate	0.385	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P381238

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166912	Ammonia-N	0.0220	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P381282

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2167030	Kjeldahl Nitrogen	7.29	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P381546

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2167028	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P381339

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166997	Total-P	1.60	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P381026

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166913	O-Phosphate-P	0.176	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P381247

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166988	Acetochlor	23.7	Spike	P	0 - 30
2166988	Alachlor	29.9	Spike	P	0 - 30
2166988	Ametryn	26.1	Spike	P	0 - 30
2166988	Atrazine	14.5	Spike	P	0 - 30
2166988	Atrazine Desethyl	23.5	Spike	P	0 - 30
2166988	Azinphos Methyl	3.31	Spike	P	0 - 30
2166988	Bromacil	30.4	Spike	F	0 - 30
2166988	Butylate	0.143	Spike	P	0 - 30
2166988	Carbophenothion	4.95	Spike	P	0 - 30
2166988	Chlorpyrifos Ethyl	14.9	Spike	P	0 - 30
2166988	Chlorpyrifos Methyl	13.1	Spike	P	0 - 30
2166988	Cyanazine	17.9	Spike	P	0 - 30
2166988	Demeton	18.3	Spike	P	0 - 30
2166988	Diazinon	20.2	Spike	P	0 - 30
2166988	Dimethenamid	21.2	Spike	P	0 - 30
2166988	Disulfoton	10.3	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P381247

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166988	Dithiopyr	20.4	Spike	P	0 - 30
2166988	EPTC	27.6	Spike	P	0 - 30
2166988	Ethion	3.24	Spike	P	0 - 30
2166988	Ethoprop	16.2	Spike	P	0 - 30
2166988	Fenamiphos	5.33	Spike	P	0 - 30
2166988	Fipronil	19.9	Spike	P	0 - 30
2166988	Fipronil Desulfinyl	23.2	Spike	P	0 - 30
2166988	Fipronil Sulfide	14.2	Spike	P	0 - 30
2166988	Fipronil Sulfone	10.4	Spike	P	0 - 30
2166988	Flumioxazin	14.8	Spike	P	0 - 30
2166988	Fonofos	16.3	Spike	P	0 - 30
2166988	Hexazinone	9.68	Spike	P	0 - 30
2166988	Imazalil	24.6	Spike	P	0 - 30
2166988	Malathion	9.83	Spike	P	0 - 30
2166988	Metalaxyl	16.3	Spike	P	0 - 30
2166988	Metolachlor	25.9	Spike	P	0 - 30
2166988	Metribuzin	19.9	Spike	P	0 - 30
2166988	Mevinphos	18.2	Spike	P	0 - 30
2166988	Molinate	19.7	Spike	P	0 - 30
2166988	Naled	15.2	Spike	P	0 - 30
2166988	Norflurazon	20.2	Spike	P	0 - 30
2166988	Parathion Ethyl	12.6	Spike	P	0 - 30
2166988	Parathion Methyl	17.9	Spike	P	0 - 30
2166988	Pendimethalin	11.4	Spike	P	0 - 30
2166988	Phorate	16.8	Spike	P	0 - 30
2166988	Prodiamine	11.5	Spike	P	0 - 30
2166988	Prometon	21.4	Spike	P	0 - 30
2166988	Prometryn	15.4	Spike	P	0 - 30
2166988	Pronamide	21.9	Spike	P	0 - 30
2166988	Propiconazole	14.6	Spike	P	0 - 30
2166988	Simazine	24.5	Spike	P	0 - 30
2166988	Sulfentrazone	18.8	Spike	P	0 - 30
2166988	Tebuconazole	10.8	Spike	P	0 - 30
2166988	Terbufos	14.4	Spike	P	0 - 30
2166988	Terbuthylazine	31.7	Spike	F	0 - 30
LFB	Acetochlor	9.18	LCS	P	0 - 30
LFB	Alachlor	8.56	LCS	P	0 - 30
LFB	Ametryn	4.27	LCS	P	0 - 30
LFB	Atrazine	7.87	LCS	P	0 - 30
LFB	Atrazine Desethyl	2.98	LCS	P	0 - 30
LFB	Azinphos Methyl	16.7	LCS	P	0 - 30
LFB	Bromacil	14.6	LCS	P	0 - 30
LFB	Butylate	9.40	LCS	P	0 - 30
LFB	Carbophenothion	21.2	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	18.4	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	14.3	LCS	P	0 - 30
LFB	Cyanazine	9.81	LCS	P	0 - 30
LFB	Demeton	18.2	LCS	P	0 - 30
LFB	Diazinon	12.6	LCS	P	0 - 30
LFB	Dimethenamid	7.75	LCS	P	0 - 30
LFB	Disulfoton	19.1	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P381247

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Dithiopyr	9.28	LCS	P	0 - 30
LFB	EPTC	4.93	LCS	P	0 - 30
LFB	Ethion	17.9	LCS	P	0 - 30
LFB	Ethoprop	10.4	LCS	P	0 - 30
LFB	Fenamiphos	18.5	LCS	P	0 - 30
LFB	Fipronil	14.2	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	11.9	LCS	P	0 - 30
LFB	Fipronil Sulfide	17.6	LCS	P	0 - 30
LFB	Fipronil Sulfone	22.9	LCS	P	0 - 30
LFB	Flumioxazin	18.7	LCS	P	0 - 30
LFB	Fonofos	11.7	LCS	P	0 - 30
LFB	Hexazinone	8.85	LCS	P	0 - 30
LFB	Imazalil	20.3	LCS	P	0 - 30
LFB	Malathion	16.1	LCS	P	0 - 30
LFB	Metalaxyl	12.6	LCS	P	0 - 30
LFB	Metolachlor	9.94	LCS	P	0 - 30
LFB	Metribuzin	9.80	LCS	P	0 - 30
LFB	Mevinphos	14.4	LCS	P	0 - 30
LFB	Molinate	9.45	LCS	P	0 - 30
LFB	Naled	12.1	LCS	P	0 - 30
LFB	Norflurazon	16.2	LCS	P	0 - 30
LFB	Parathion Ethyl	11.4	LCS	P	0 - 30
LFB	Parathion Methyl	5.56	LCS	P	0 - 30
LFB	Pendimethalin	13.4	LCS	P	0 - 30
LFB	Phorate	16.4	LCS	P	0 - 30
LFB	Prodiamine	7.01	LCS	P	0 - 30
LFB	Prometon	8.50	LCS	P	0 - 30
LFB	Prometryn	9.64	LCS	P	0 - 30
LFB	Pronamide	8.43	LCS	P	0 - 30
LFB	Propiconazole	18.9	LCS	P	0 - 30
LFB	Simazine	11.6	LCS	P	0 - 30
LFB	Sulfentrazone	15.5	LCS	P	0 - 30
LFB	Tebuconazole	12.8	LCS	P	0 - 30
LFB	Terbufos	14.6	LCS	P	0 - 30
LFB	Terbutylazine	7.77	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P381436

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2167053	Aldrin	0.664	Spike	P	0 - 30
2167053	Alpha-BHC	0.920	Spike	P	0 - 30
2167053	Alpha-Chlordane	2.50	Spike	P	0 - 30
2167053	Beta-BHC	2.41	Spike	P	0 - 30
2167053	Beta-Cyfluthrin	11.6	Spike	P	0 - 30
2167053	Bifenthrin	1.16	Spike	P	0 - 30
2167053	Chlorothalonil	8.19	Spike	P	0 - 30
2167053	Cis-Nonachlor	1.75	Spike	P	0 - 30
2167053	Cypermethrin	11.6	Spike	P	0 - 30
2167053	Dacthal	1.80	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P381436

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2167053	DDD-p,p'	3.09	Spike	P	0 - 30
2167053	DDE-p,p'	0.325	Spike	P	0 - 30
2167053	DDT-p,p'	1.87	Spike	P	0 - 30
2167053	Delta-BHC	3.62	Spike	P	0 - 30
2167053	Dicofol	0.647	Spike	P	0 - 30
2167053	Dieldrin	0.0443	Spike	P	0 - 30
2167053	Endosulfan I	2.23	Spike	P	0 - 30
2167053	Endosulfan II	1.86	Spike	P	0 - 30
2167053	Endosulfan Sulfate	5.68	Spike	P	0 - 30
2167053	Endrin	0.752	Spike	P	0 - 30
2167053	Endrin Aldehyde	1.65	Spike	P	0 - 30
2167053	Endrin Ketone	0.845	Spike	P	0 - 30
2167053	Ethalfuralin	17.2	Spike	P	0 - 30
2167053	Gamma-BHC	4.19	Spike	P	0 - 30
2167053	Gamma-Chlordane	1.50	Spike	P	0 - 30
2167053	Heptachlor	3.25	Spike	P	0 - 30
2167053	Heptachlor Epoxide	2.72	Spike	P	0 - 30
2167053	Hexachlorobenzene	0.718	Spike	P	0 - 30
2167053	Lambda-Cyhalothrin	5.10	Spike	P	0 - 30
2167053	Methoxychlor	1.15	Spike	P	0 - 30
2167053	Mirex	2.74	Spike	P	0 - 30
2167053	Permethrin	11.0	Spike	P	0 - 30
2167053	Phenothrin	3.35	Spike	P	0 - 30
2167053	Prallethrin	3.67	Spike	P	0 - 30
2167053	Trans-Nonachlor	2.43	Spike	P	0 - 30
2167053	Trifluralin	1.10	Spike	P	0 - 30
LFB	Aldrin	1.57	LCS	P	0 - 30
LFB	Alpha-BHC	3.24	LCS	P	0 - 30
LFB	Alpha-Chlordane	0.742	LCS	P	0 - 30
LFB	Beta-BHC	0.481	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	13.6	LCS	P	0 - 30
LFB	Bifenthrin	2.00	LCS	P	0 - 30
LFB	Chlorothalonil	11.5	LCS	P	0 - 30
LFB	Cis-Nonachlor	2.11	LCS	P	0 - 30
LFB	Cypermethrin	3.01	LCS	P	0 - 30
LFB	Dacthal	1.21	LCS	P	0 - 30
LFB	DDD-p,p'	2.67	LCS	P	0 - 30
LFB	DDE-p,p'	0.553	LCS	P	0 - 30
LFB	DDT-p,p'	0.121	LCS	P	0 - 30
LFB	Delta-BHC	2.08	LCS	P	0 - 30
LFB	Dicofol	0.0493	LCS	P	0 - 30
LFB	Dieldrin	2.12	LCS	P	0 - 30
LFB	Endosulfan I	3.93	LCS	P	0 - 30
LFB	Endosulfan II	3.70	LCS	P	0 - 30
LFB	Endosulfan Sulfate	0.741	LCS	P	0 - 30
LFB	Endrin	1.15	LCS	P	0 - 30
LFB	Endrin Aldehyde	0.0271	LCS	P	0 - 30
LFB	Endrin Ketone	3.21	LCS	P	0 - 30
LFB	Ethalfuralin	1.36	LCS	P	0 - 30
LFB	Gamma-BHC	0.800	LCS	P	0 - 30
LFB	Gamma-Chlordane	0.446	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P381436

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Heptachlor	1.45	LCS	P	0 - 30
LFB	Heptachlor Epoxide	1.58	LCS	P	0 - 30
LFB	Hexachlorobenzene	0.0153	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	1.48	LCS	P	0 - 30
LFB	Methoxychlor	0.577	LCS	P	0 - 30
LFB	Mirex	0.631	LCS	P	0 - 30
LFB	Permethrin	0.745	LCS	P	0 - 30
LFB	Phenothrin	4.92	LCS	P	0 - 30
LFB	Prallethrin	0.139	LCS	P	0 - 30
LFB	Trans-Nonachlor	0.935	LCS	P	0 - 30
LFB	Trifluralin	1.70	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P381567

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2168846	Oxadiazon	8.21	Spike	P	0 - 30
LFB	Oxadiazon	19.7	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P381436

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166579	Chlordane	2.97	Spike	P	0 - 30
2166579	Toxaphene	0.447	Spike	P	0 - 30
LFB	Chlordane	0.182	LCS	P	0 - 30
LFB	Toxaphene	1.86	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P380944

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2165513	3-Hydroxycarbofuran	11.7	Spike	P	0 - 30
2165513	Aldicarb	31.2	Spike	F	0 - 30
2165513	Aldicarb Sulfone	0.811	Spike	P	0 - 30
2165513	Aldicarb Sulfoxide	4.95	Spike	P	0 - 30
2165513	Carbaryl	10.0	Spike	P	0 - 30
2165513	Carbofuran	6.35	Spike	P	0 - 30
2165513	Methiocarb	13.7	Spike	P	0 - 30
2165513	Methomyl	8.52	Spike	P	0 - 30
2165513	Oxamyl	0.255	Spike	P	0 - 30
2165513	Propoxur	20.5	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P380955

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
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Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P380955

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166972	Acesulfame K	1.00	Spike	P	0 - 30
2166972	AMPA	9.02	Spike	P	0 - 30
2166972	Endothall	4.27	Spike	P	0 - 30
2166972	Glufosinate	6.73	Spike	P	0 - 30
2166972	Glyphosate	3.24	Spike	P	0 - 30
2166972	Sucralose	5.24	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P381156

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166972	2,4-D	3.67	Spike	P	0 - 30
2166972	Acetaminophen	4.10	Spike	P	0 - 30
2166972	Acetamiprid	9.98	Spike	P	0 - 30
2166972	Afidopyropen	3.77	Spike	P	0 - 30
2166972	Bentazon	0.0481	Spike	P	0 - 30
2166972	Benzovindiflupyr	7.35	Spike	P	0 - 30
2166972	Carbamazepine	3.35	Spike	P	0 - 30
2166972	Clothianidin	3.79	Spike	P	0 - 30
2166972	Dinotefuran	12.8	Spike	P	0 - 30
2166972	Diuron	1.20	Spike	P	0 - 30
2166972	Fenuron	4.84	Spike	P	0 - 30
2166972	Fluridone	2.35	Spike	P	0 - 30
2166972	Hydrocodone	2.96	Spike	P	0 - 30
2166972	Ibuprofen	9.28	Spike	P	0 - 30
2166972	Imazapyr	2.17	Spike	P	0 - 30
2166972	Imidacloprid	0.210	Spike	P	0 - 30
2166972	Linuron	1.58	Spike	P	0 - 30
2166972	Mandestrobin	0.120	Spike	P	0 - 30
2166972	MCP	2.51	Spike	P	0 - 30
2166972	Naproxen	18.6	Spike	P	0 - 30
2166972	Primidone	8.45	Spike	P	0 - 30
2166972	Pyraclostrobin	2.56	Spike	P	0 - 30
2166972	Thiamethoxam	1.78	Spike	P	0 - 30
2166972	Tolfenpyrad	2.91	Spike	P	0 - 30
2166972	Triclopyr	4.17	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P380995

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2167024	Color (true)	1.38	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P381413

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166937	Total Alkalinity	0.0452	Sample	P	0 - 3.3

Quality Assurance Report Precision

Reference Method: SM 2540 C-2011
Batch ID: P381518

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166472	TDS	0.873	Sample	P	0 - 10

Reference Method: SM 2540 C-2011
Batch ID: P381519

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166502	TDS	2.00	Sample	P	0 - 10

Reference Method: SM 2540 D-2011
Batch ID: P381253

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2167027	TSS	6.06	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P381456

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166472	Fluoride	0.533	Spike	P	0 - 2.0

Reference Method: SM 5310 B-2011
Batch ID: P381090

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166912	Organic Carbon	1.12	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2167015
Field Sample ID: 21030071

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	55.5	P	30 - 160

Lab Sample ID: 2167016
Field Sample ID: 21030071

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	84.8	P	30 - 160
EPA 8321B	Acetaminophen-d4	118	P	30 - 160
EPA 8321B	Carbamazepine-d10	78.3	P	30 - 160
EPA 8321B	Diuron-d6	94.4	P	30 - 160
EPA 8321B	Endothall-d6	98.2	P	30 - 160
EPA 8321B	Endothall-d6	98.2	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	95.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	95.6	P	30 - 160
EPA 8321B	Ibuprofen-d3	78.5	P	30 - 160
EPA 8321B	Primidone-d5	56.5	P	30 - 160
EPA 8321B	Sucralose-d6	83.1	P	30 - 200
EPA 8321B	Sucralose-d6	83.1	P	30 - 200

Lab Sample ID: 2167017
Field Sample ID: G1NE0020

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	102	P	30 - 160
EPA 8321B	Acetaminophen-d4	127	P	30 - 160
EPA 8321B	Carbamazepine-d10	79.8	P	30 - 160
EPA 8321B	Diuron-d6	103	P	30 - 160
EPA 8321B	Endothall-d6	89.3	P	30 - 160
EPA 8321B	Endothall-d6	89.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	101	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	101	P	30 - 160
EPA 8321B	Primidone-d5	67.1	P	30 - 160
EPA 8321B	Sucralose-d6	89.8	P	30 - 200
EPA 8321B	Sucralose-d6	89.8	P	30 - 200

Lab Sample ID: 2167018
Field Sample ID: 21030071

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	91.7	P	44 - 112
EPA 8270E	Tetrachloro-m-xylene	68.7	P	34 - 106
EPA 8276	Decachlorobiphenyl	81.4	P	26 - 97.0
EPA 8276	PCNB	112	P	38 - 141

Lab Sample ID: 2167019
Field Sample ID: 21030071

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	117	P	72 - 135
EPA 8270E	Simazine-d10	96.1	P	72 - 135
EPA 8270E	Terbufos-d10	95.1	P	57 - 134
EPA 8270E	Terbufos-d10	86.1	P	57 - 134

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B-2011

Run ID: A98315

Included Lab Sample IDs: 2166996, 2166999

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	103	104	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A98316

Included Lab Sample IDs: 2166996, 2166999

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	98.5	98.5	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A98329

Included Lab Sample IDs: 2166998, 2167001

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	101	102	P/P	90 - 110
O-Phosphate-P	102	104	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A98352

Included Lab Sample IDs: 2167016, 2167017

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	120	125	P/P	60 - 160
Endothall	106	106	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A98362

Included Lab Sample IDs: 2167016, 2167017

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	119	108	P/P	40 - 200
Glufosinate	126	118	P/P	40 - 200
Glyphosate	140	130	P/P	40 - 200

Reference Method: SM 5310 B-2011

Run ID: A98371

Included Lab Sample IDs: 2166997, 2167000

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

Reference Method: EPA 8321B

Run ID: A98394

Included Lab Sample IDs: 2167015

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	90.4	99.3	P/P	60 - 150
Aldicarb	89.7	109	P/P	60 - 150
Aldicarb Sulfone	93.0	105	P/P	50 - 150
Aldicarb Sulfoxide	72.9	81.8	P/P	50 - 150
Carbaryl	102	105	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A98394

Included Lab Sample IDs: 2167015

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Carbofuran	84.8	109	P/P	50 - 150
Methiocarb	104	98.4	P/P	50 - 150
Methomyl	90.9	97.4	P/P	50 - 150
Oxamyl	96.2	90.8	P/P	50 - 150
Propoxur	98.7	97.1	P/P	50 - 150

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A98413

Included Lab Sample IDs: 2166997, 2167000

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	102	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A98451

Included Lab Sample IDs: 2166997, 2167000

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	90.1	92.9	P/P	90 - 110
Kjeldahl Nitrogen	92.9	93.4	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A98487

Included Lab Sample IDs: 2167016, 2167017

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	82.5	95.0	P/P	40 - 200

Reference Method: SM 2320 B-2011

Run ID: A98490

Included Lab Sample IDs: 2166996, 2166999

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	104	102	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A98493

Included Lab Sample IDs: 2167020

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	94.4	97.5	P/P	90 - 110
Antimony	93.7	96.0	P/P	90 - 110
Arsenic	99.3	99.8	P/P	90 - 110
Boron	103	102	P/P	90 - 110
Cadmium	97.9	98.4	P/P	90 - 110
Chromium	95.7	95.6	P/P	90 - 110
Copper	93.5	98.8	P/P	90 - 110
Lead	101	99.4	P/P	90 - 110
Nickel	101	97.9	P/P	90 - 110
Selenium	95.8	97.9	P/P	90 - 110
Silver	97.9	97.2	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A98493

Included Lab Sample IDs: 2167020

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Thallium	98.6	95.9	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A98495

Included Lab Sample IDs: 2166996, 2166999

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.5	99.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A98517

Included Lab Sample IDs: 2166997, 2167000

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	99.5	99.0	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A98518

Included Lab Sample IDs: 2167016, 2167017

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	98.0	94.3	P/P	50 - 150
Acetaminophen	99.4	106	P/P	60 - 160
Acetamiprid	106	112	P/P	50 - 150
Afidopyropen	99.7	97.4	P/P	50 - 150
Bentazon	116	113	P/P	50 - 160
Benzovindiflupyr	106	106	P/P	50 - 150
Carbamazepine	104	106	P/P	60 - 150
Clothianidin	103	101	P/P	60 - 150
Dinotefuran	106	110	P/P	50 - 150
Diuron	109	106	P/P	60 - 150
Fenuron	112	110	P/P	60 - 150
Fluridone	109	113	P/P	60 - 160
Hydrocodone	113	112	P/P	60 - 150
Ibuprofen	86.5	96.2	P/P	50 - 160
Imazapyr	93.1	90.6	P/P	50 - 150
Imidacloprid	103	102	P/P	60 - 150
Linuron	105	107	P/P	60 - 150
Mandestrobin	101	103	P/P	50 - 150
MCP	102	100	P/P	50 - 150
Naproxen	89.8	88.4	P/P	50 - 160
Primidone	105	99.9	P/P	60 - 150
Pyraclostrobin	103	104	P/P	60 - 150
Thiamethoxam	110	108	P/P	50 - 150
Tolfenpyrad	102	101	P/P	60 - 150
Triclopyr	103	93.5	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A98525

Included Lab Sample IDs: 2166997, 2167000

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A98530

Included Lab Sample IDs: 2167020

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	102	101	P/P	90 - 110
Calcium	102	101	P/P	90 - 110
Iron	103	103	P/P	90 - 110
Magnesium	102	102	P/P	90 - 110
Potassium	102	103	P/P	90 - 110
Sodium	104	106	P/P	90 - 110
Zinc	100	98.2	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A98550

Included Lab Sample IDs: 2167018

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	97.9		P	80 - 120
Alpha-BHC	102		P	80 - 120
Alpha-Chlordane	90.1		P	80 - 120
Beta-BHC	106		P	80 - 120
Beta-Cyfluthrin	84.5		P	80 - 120
Bifenthrin	94.4		P	80 - 120
Chlorothalonil	136*		F	80 - 120
Cis-Nonachlor	88.5		P	80 - 120
Cypermethrin	85.4		P	80 - 120
Dacthal	96.5		P	80 - 120
DDD-p,p'	86.6		P	80 - 120
DDE-p,p'	89.7		P	80 - 120
DDT-p,p'	98.1		P	80 - 120
Delta-BHC	102		P	80 - 120
Dicofol	97.6		P	80 - 120
Dieldrin	91.1		P	80 - 120
Endosulfan I	96.2		P	80 - 120
Endosulfan II	91.8		P	80 - 120
Endosulfan Sulfate	93.9		P	80 - 120
Endrin	90.2		P	80 - 120
Endrin Aldehyde	101		P	80 - 120
Endrin Ketone	98.0		P	80 - 120
Ethalfuralin	101		P	80 - 120
Gamma-BHC	101		P	80 - 120
Gamma-Chlordane	94.3		P	80 - 120
Heptachlor	96.6		P	80 - 120
Heptachlor Epoxide	95.0		P	80 - 120
Hexachlorobenzene	100		P	80 - 120
Lambda-Cyhalothrin	87.9		P	80 - 120
Methoxychlor	94.5		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A98550

Included Lab Sample IDs: 2167018

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Mirex	95.5		P	80 - 120
Permethrin	90.8		P	80 - 120
Phenothrin	88.5		P	80 - 120
Prallethrin	90.0		P	80 - 120
Trans-Nonachlor	87.6		P	80 - 120
Trifluralin	99.6		P	80 - 120

Reference Method: EPA 8276

Run ID: A98580

Included Lab Sample IDs: 2167018

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	98.7		P	80 - 120
Toxaphene	107		P	80 - 120

Reference Method: EPA 8270E

Run ID: A98622

Included Lab Sample IDs: 2167019

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	100		P	80 - 120
Alachlor	100		P	80 - 120
Ametryn	100		P	80 - 120
Atrazine	95.5		P	80 - 120
Atrazine Desethyl	112		P	80 - 120
Azinphos Methyl	104		P	80 - 120
Bromacil	99.3		P	80 - 120
Butylate	103		P	80 - 120
Carbophenothion	99.3		P	80 - 120
Chlorpyrifos Ethyl	100		P	80 - 120
Chlorpyrifos Methyl	99.7		P	80 - 120
Cyanazine	92.7		P	80 - 120
Demeton	101		P	80 - 120
Diazinon	99.1		P	80 - 120
Dimethenamid	97.6		P	80 - 120
Disulfoton	90.1		P	80 - 120
Dithiopyr	98.4		P	80 - 120
EPTC	105		P	80 - 120
Ethion	96.2		P	80 - 120
Ethoprop	98.6		P	80 - 120
Fenamiphos	98.4		P	80 - 120
Fipronil	96.7		P	80 - 120
Fipronil Desulfinyl	99.7		P	80 - 120
Fipronil Sulfide	94.0		P	80 - 120
Fipronil Sulfone	92.5		P	80 - 120
Flumioxazin	96.7		P	80 - 120
Fonofos	98.3		P	80 - 120
Hexazinone	100		P	80 - 120
Imazalil	88.8		P	80 - 120
Malathion	97.7		P	80 - 120
Metalaxyl	99.4		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
 Run ID: A98622
 Included Lab Sample IDs: 2167019

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Metolachlor	98.9		P	80 - 120
Metribuzin	88.4		P	80 - 120
Mevinphos	99.0		P	80 - 120
Molinate	104		P	80 - 120
Naled	101		P	80 - 120
Norflurazon	98.5		P	80 - 120
Parathion Ethyl	92.9		P	80 - 120
Parathion Methyl	99.2		P	80 - 120
Pendimethalin	92.8		P	80 - 120
Phorate	101		P	80 - 120
Prodiamine	91.5		P	80 - 120
Prometon	98.2		P	80 - 120
Prometryn	98.8		P	80 - 120
Pronamide	102		P	80 - 120
Propiconazole	92.5		P	80 - 120
Simazine	99.6		P	80 - 120
Sulfentrazone	93.5		P	80 - 120
Tebuconazole	101		P	80 - 120
Terbufos	99.3		P	80 - 120
Terbutylazine	99.5		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
 Run ID: A98686
 Included Lab Sample IDs: 2166996, 2166999

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.8	100	P/P	90 - 110
Sulfate	99.9	101	P/P	90 - 110

Reference Method: EPA 8270E
 Run ID: A98730
 Included Lab Sample IDs: 2167019

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Oxadiazon	104		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							2.81	
EPA 200.7 Rev. 4.4	Barium	98.4		97.0	97.7	97.9			0.160
	Calcium	103		101	100				0.250
	Iron	104		104	104	102			1.91
	Magnesium	111		102	107	105			1.55
	Potassium	104		102	108	108			0.199
	Sodium	106		96.5	106	105			0.316
	Zinc	99.9		100	100	101			0.424
EPA 200.8 Rev. 5.4	Aluminum	95.2		92.1	93.6	93.0			0.550
	Antimony	93.3		94.2	95.3	97.0			1.78
	Arsenic	101		100	99.9	104			3.94
	Boron	102		102	103	105			1.79
	Cadmium	97.1		98.3	98.9	102			3.57
	Chromium	96.5		97.6	99.1	99.5			0.341
	Copper	96.2		95.0	95.3	97.5			2.23
	Lead	99.9		98.4	99.9	99.9			0.0336
	Nickel	101		98.1	97.7	99.7			2.00
	Selenium	95.5		92.0	93.5	99.3			6.02
	Silver	102		101	102	101			0.556
	Thallium	104		103	104	98.8			4.91
EPA 300.0 Rev. 2.1	Chloride	99.1		99.1	96.6			0.0160	
	Sulfate	99.7		98.8	95.0			0.385	
EPA 350.1 Rev. 2.0	Ammonia-N	98.8		100	100				0.0220
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	96.9		96.8	106				7.29
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	99.0		101	101				0.0
EPA 365.1 Rev. 2.0	Total-P	104		107	104				1.60
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	102		101	102				0.176
EPA 8270E	Acetochlor	89.2	97.7	103	81.1		9.18		23.7
	Alachlor	85.8	93.5	100	74.2		8.56		29.9
	Aldrin	45.9	46.6	13.1	13.1		1.57		0.664
	Alpha-BHC	99.0	95.9	98.6	99.6		3.24		0.920
	Alpha-Chlordane	85.2	84.6	87.4	85.2		0.742		2.50
	Ametryn	95.4	99.5				4.27		26.1
	Atrazine	101	109				7.87		14.5
	Atrazine Desethyl	80.3	82.8	113	75.7		2.98		23.5
	Azinphos Methyl	116	137	136	132		16.7		3.31
	Beta-BHC	108	108	120	123		0.481		2.41
	Beta-Cyfluthrin	81.9	93.8	90.1	101		13.6		11.6
	Bifenthrin	91.8	93.6	101	99.9		2.00		1.16
	Bromacil	69.8	80.8	96.8	71.3		14.6		30.4
	Butylate	66.4	73.0	64.1	64.2		9.40		0.143
	Carbophenothion	89.8	111	80.8	76.9		21.2		4.95
	Chlorothalonil	168	150	251	231		11.5		8.19
	Chlorpyrifos Ethyl	91.4	110	94.8	81.7		18.4		14.9
	Chlorpyrifos Methyl	94.0	108	97.6	85.6		14.3		13.1
	Cis-Nonachlor	87.8	89.7	92.6	94.2		2.11		1.75
	Cyanazine	100	111	97.6	81.6		9.81		17.9
	Cypermethrin	94.6	97.5	99.9	112		3.01		11.6
	Dacthal	96.1	97.2	101	99.5		1.21		1.80
	DDD-p,p'	96.8	99.4	101	104		2.67		3.09
	DDE-p,p'	86.6	87.0	89.4	89.1		0.553		0.325
	DDT-p,p'	87.8	87.7	88.9	87.3		0.121		1.87
	Delta-BHC	116	114	130	135		2.08		3.62
	Demeton	63.6	76.3	105	87.5		18.2		18.3

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Diazinon	84.6	96.0	102	83.5	12.6	20.2
	Dicofol	80.3	80.3	82.9	82.4	0.0493	0.647
	Dieldrin	91.8	93.7	108	108	2.12	0.0443
	Dimethenamid	86.4	93.3	90.6	73.2	7.75	21.2
	Disulfoton	61.2	74.1	84.5	76.2	19.1	10.3
	Dithiopyr	83.2	91.2	93.0	75.8	9.28	20.4
	Endosulfan I	105	101	108	106	3.93	2.23
	Endosulfan II	103	107	111	109	3.70	1.86
	Endosulfan Sulfate	104	105	113	107	0.741	5.68
	Endrin	84.6	85.5	92.5	93.2	1.15	0.752
	Endrin Aldehyde	104	104	98.2	96.6	0.0271	1.65
	Endrin Ketone	107	110	112	111	3.21	0.845
	EPTC	61.0	64.0	57.2	43.3	4.93	27.6
	Ethalfuralin	78.5	77.4	1.11	1.31	1.36	17.2
	Ethion	74.5	89.1	38.7	40.0	17.9	3.24
	Ethoprop	89.5	99.3	101	85.5	10.4	16.2
	Fenamiphos	80.5	96.9	65.9	62.5	18.5	5.33
	Fipronil	83.1	95.9	87.8	71.9	14.2	19.9
	Fipronil Desulfinyl	86.0	96.9	90.5	71.6	11.9	23.2
	Fipronil Sulfide	79.9	95.4	80.0	69.4	17.6	14.2
	Fipronil Sulfone	75.1	94.5	79.3	71.5	22.9	10.4
	Flumioxazin	138	167	160	138	18.7	14.8
	Fonofos	86.5	97.3	95.9	81.5	11.7	16.3
	Gamma-BHC	108	107	109	113	0.800	4.19
	Gamma-Chlordane	83.5	83.9	84.0	82.7	0.446	1.50
	Heptachlor	77.0	78.1	75.8	73.4	1.45	3.25
	Heptachlor Epoxide	89.9	91.3	95.2	92.7	1.58	2.72
	Hexachlorobenzene	77.4	77.4	75.4	76.0	0.0153	0.718
	Hexazinone	89.2	97.5	109	90.9	8.85	9.68
	Imazalil	34.6	42.4	94.2	73.5	20.3	24.6
	Lambda-Cyhalothrin	91.7	93.1	98.9	104	1.48	5.10
	Malathion	104	123	103	93.7	16.1	9.83
	Metalaxyl	84.2	95.5	93.0	79.0	12.6	16.3
	Methoxychlor	92.4	93.0	34.4	34.8	0.577	1.15
	Metolachlor	83.3	92.0	91.3	67.7	9.94	25.9
	Metribuzin	116	128	148	113	9.80	19.9
	Mevinphos	86.4	99.7	98.1	81.8	14.4	18.2
	Mirex	69.3	68.8	74.4	76.4	0.631	2.74
	Molinate	73.4	80.7	81.5	66.9	9.45	19.7
	Naled	63.6	71.8	73.8	63.4	12.1	15.2
	Norflurazon	86.3	101	89.0	72.7	16.2	20.2
	Oxadiazon	93.0	113	87.2	98.1	19.7	8.21
	Parathion Ethyl	86.3	96.7	95.0	83.7	11.4	12.6
	Parathion Methyl	103	109	121	101	5.56	17.9
	Pendimethalin	79.5	90.9	93.7	83.6	13.4	11.4
	Permethrin	87.6	87.0	82.0	91.6	0.745	11.0
	Phenothrin	45.9	48.3	5.38	5.20	4.92	3.35
	Phorate	86.9	102	118	99.5	16.4	16.8
	Prallethrin	48.6	48.7	4.87	5.05	0.139	3.67
	Prodiamine	41.7	44.7	59.6	53.1	7.01	11.5
	Prometon	81.5	88.7	85.3	68.8	8.50	21.4
	Prometryn	81.8	90.1	89.3	74.2	9.64	15.4
	Pronamide	94.5	103	111	88.7	8.43	21.9
	Propiconazole	76.0	91.8	74.8	61.4	18.9	14.6

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	SMP
EPA 8270E	Simazine	98.7	111	124	96.7	11.6	24.5
	Sulfentrazone	54.8	64.0	80.8	66.9	15.5	18.8
	Tebuconazole	49.5	56.3	30.2	27.1	12.8	10.8
	Terbufos	86.0	99.5	101	87.6	14.6	14.4
	Terbuthylazine	92.3	99.8	99.3	72.1	7.77	31.7
	Trans-Nonachlor	80.7	80.0	79.8	77.9	0.935	2.43
	Trifluralin	82.2	80.8	82.8	81.9	1.70	1.10
EPA 8276	Chlordane	90.8	90.6	71.1	73.4	0.182	2.97
	Toxaphene	110	108	104	103	1.86	0.447
EPA 8321B	2,4-D	115		128	133		3.67
	3-Hydroxycarbofuran	87.9		91.6	81.4		11.7
	Acesulfame K	111		140	139		1.00
	Acetaminophen	86.2		103	107		4.10
	Acetamiprid	98.6		105	116		9.98
	Afidopyropen	110		110	114		3.77
	Aldicarb	49.5		89.3	65.2		31.2
	Aldicarb Sulfone	85.7		94.7	93.9		0.811
	Aldicarb Sulfoxide	73.6		37.0	38.8		4.95
	AMPA	99.1		103	94.4		9.02
	Bentazon	87.3		64.4	64.4		0.0481
	Benzovindiflupyr	82.6		83.4	77.5		7.35
	Carbamazepine	118		105	102		3.35
	Carbaryl	70.1		73.7	66.7		10.0
	Carbofuran	62.6		67.1	63.0		6.35
	Clothianidin	106		121	125		3.79
	Dinotefuran	94.5		140	123		12.8
	Diuron	105		96.7	97.9		1.20
	Endothall	85.9		101	97.2		4.27
	Fenuron	110		81.4	85.4		4.84
	Fluridone	88.9		88.0	86.0		2.35
	Glufosinate	118		114	106		6.73
	Glyphosate	125		113	117		3.24
	Hydrocodone	94.4		122	118		2.96
	Ibuprofen	89.9		86.1	78.5		9.28
	Imazapyr	87.2		121	119		2.17
	Imidacloprid	107		159	159		0.210
	Linuron	80.1		78.2	77.0		1.58
	Mandestrobin	89.2		86.5	86.6		0.120
	MCPP	137		143	147		2.51
	Methiocarb	60.0		66.1	57.6		13.7
	Methomyl	78.4		91.1	83.7		8.52
	Naproxen	71.5		73.9	89.0		18.6
	Oxamyl	72.8		90.1	89.9		0.255
	Primidone	103		120	110		8.45
	Propoxur	69.0		73.9	60.2		20.5
	Pyraclostrobin	76.9		87.9	85.6		2.56
	Sucralose	99.0		87.8	92.5		5.24
	Thiamethoxam	104		157	160		1.78
	Tolfenpyrad	51.8		55.1	56.8		2.91
	Triclopyr	104		112	117		4.17
SM 2120 B-2011	Color (true)	97.6					1.38
SM 2320 B-2011	Total Alkalinity	104					0.0452
SM 2540 C-2011	TDS						0.873
	TDS						2.00

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
					LCS	
SM 2540 D-2011	TSS				6.06	
SM 4500 F-C-2011	Fluoride	95.9	98.9	99.5		0.533
SM 5310 B-2011	Organic Carbon	102	101	102		1.12

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2166996, 2166999
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2167020
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2167020
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2166996, 2166999
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2166996, 2166999
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2166997, 2167000
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2166997, 2167000
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2166997, 2167000
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2166997, 2167000
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2166998, 2167001
EPA 8270E	Organochlorine pesticides in water matrices by GC/MS-SIM	2167018
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2167019
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2167018
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2167015
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2167016, 2167017
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2167016, 2167017
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2166996, 2166999
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2166996, 2166999
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2167020
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2166996, 2166999
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2166996, 2166999
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2166996, 2166999
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2166997, 2167000

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	03/19/2020			03/19/2020 17:42	Julia Storbeck	2166996, 2166999
EPA 200.7 Rev. 4.4	03/19/2020	03/24/2020 15:25	Elliott D. Healy	03/30/2020 17:17	Betina Topolski	2167020
EPA 200.8 Rev. 5.4	03/19/2020	03/24/2020 15:25	Elliott D. Healy	03/27/2020 19:21	Alexander Thompson	2167020
EPA 300.0 Rev. 2.1	03/19/2020			04/06/2020 22:53	Julia Storbeck	2166996
	03/19/2020			04/06/2020 23:06	Julia Storbeck	2166999
EPA 350.1 Rev. 2.0	03/19/2020			03/24/2020 18:45	Ping Hua	2166997
	03/19/2020			03/24/2020 18:47	Ping Hua	2167000
EPA 351.2 Rev. 2.0	03/19/2020	03/25/2020 09:45	Sima Feizi	03/26/2020 10:21	Jhamieka S. Greenwood	2166997
	03/19/2020	03/25/2020 09:45	Sima Feizi	03/26/2020 10:26	Jhamieka S. Greenwood	2167000
EPA 353.2 Rev. 2.0	03/19/2020			03/30/2020 17:14	Lauren Lees	2166997
	03/19/2020			03/30/2020 17:15	Lauren Lees	2167000
EPA 365.1 Rev. 2.0	03/19/2020	03/26/2020 12:10	Lipi Saha	03/27/2020 09:37	Lipi Saha	2166997
	03/19/2020	03/26/2020 12:10	Lipi Saha	03/27/2020 09:43	Lipi Saha	2167000
EPA 365.1 Rev. 2.0 dissolved	03/19/2020			03/19/2020 15:48	Carlos Miranda	2166998
	03/19/2020			03/19/2020 15:53	Carlos Miranda	2167001
EPA 8270E	03/19/2020	03/24/2020 08:30	Rasheda Ghaffari	03/30/2020 03:41	Arthur Maknenko	2167018
	03/19/2020	03/25/2020 08:30	Rasheda Ghaffari	03/27/2020 17:48	Vandana T. Nagar	2167019
	03/19/2020	04/01/2020 08:00	Fe-Val Siddell	04/03/2020 15:17	Marek Topolski	2167019
EPA 8276	03/19/2020	03/24/2020 08:30	Rasheda Ghaffari	03/30/2020 13:20	Arthur Maknenko	2167018
EPA 8321B	03/19/2020	03/20/2020 09:00	Hoor Shaik	03/22/2020 07:10	Juyoung Kim	2167015
	03/19/2020	03/20/2020 15:30	Mohammad Ghaffari	03/20/2020 19:08	Mohammad Ghaffari	2167016
	03/19/2020	03/20/2020 15:30	Mohammad Ghaffari	03/20/2020 19:19	Mohammad Ghaffari	2167017
	03/19/2020	03/20/2020 15:30	Mohammad Ghaffari	03/22/2020 19:23	Mohammad Ghaffari	2167016
	03/19/2020	03/20/2020 15:30	Mohammad Ghaffari	03/22/2020 19:38	Mohammad Ghaffari	2167017
	03/19/2020	03/20/2020 15:30	Mohammad Ghaffari	03/27/2020 09:39	Mohammad Ghaffari	2167016
	03/19/2020	03/20/2020 15:30	Mohammad Ghaffari	03/27/2020 09:50	Mohammad Ghaffari	2167017
	03/19/2020	03/24/2020 09:00	Hoor Shaik	03/26/2020 06:54	Mohammad Ghaffari	2167016
	03/19/2020	03/24/2020 09:00	Hoor Shaik	03/26/2020 07:29	Mohammad Ghaffari	2167017
SM 2120 B-2011	03/19/2020			03/19/2020 16:36	Madeline Gruver	2166996, 2166999
SM 2320 B-2011	03/19/2020			03/27/2020 12:32	Dale L. Simmons	2166996
	03/19/2020			03/27/2020 12:42	Dale L. Simmons	2166999
SM 2340B	03/19/2020			03/30/2020 17:17	Betina Topolski	2167020
SM 2540 C-2011	03/19/2020			03/23/2020 15:22	Yijie Li	2166996, 2166999
SM 2540 D-2011	03/19/2020			03/23/2020 15:22	Yijie Li	2166996, 2166999
SM 4500 F-C-2011	03/19/2020			03/28/2020 02:08	Dale L. Simmons	2166996
	03/19/2020			03/28/2020 02:13	Dale L. Simmons	2166999
SM 5310 B-2011	03/19/2020			03/21/2020 03:50	Lauren Lees	2166997
	03/19/2020			03/21/2020 04:02	Lauren Lees	2167000