

Chemical Analysis Report

SW-DIST-2020-07-15-02

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

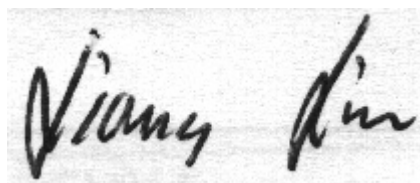
Event Description: **Run 15**
Request ID: **RQ-2020-07-13-05**
Customer: **SW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
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13051 N. Telecom Parkway
Temple Terrace, FL 33637-0926
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Certified by: Liang Lin, Environmental Administrator

Date Certified: 06-AUG-2020 12:39

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

Case Narrative

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

Results for the following analytical groups are included in this report: Metals, Nutrients and Pesticides.

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

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

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

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

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

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

Precision is reported as relative percent difference unless otherwise noted.

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

QC Codes used in this report may include:

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

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

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

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

Sample Location: St. Joe Tidal by Westchester Blvd

Collection Date/Time: 07/14/2020 12:30

Field ID: G5SW0169

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2183029	EPA 180.1 Rev. 2.0	Turbidity	3.8		NTU	P384668	
	EPA 300.0 Rev. 2.1	Bromide	12		mg Br/L	P385582	
	SM 2320 B-2011	Total Alkalinity	143		mg CaCO3/L	P384846	
	SM 2540 D-2011	TSS	5	I	mg/L	P385128	
	SM 4500 F-C-2011	Fluoride	0.50		mg F/L	P384852	
2183030	EPA 350.1 Rev. 2.0	Ammonia-N	0.010		mg N/L	P384820	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.92		mg N/L	P384698	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.10		mg N/L	P384859	
	EPA 365.1 Rev. 2.0	Total-P	0.23		mg P/L	P384877	
	SM 5310 B-2011	Organic Carbon	11		mg C/L	P384782	
2183031	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.15		mg P/L	P384673	

Ref. Method and Comment:

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

Sample Location: Snug Harbor- TP428

Collection Date/Time: 07/14/2020 10:30

Field ID: G1SW0099

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2183026	EPA 180.1 Rev. 2.0	Turbidity	2.2		NTU	P384668	
	EPA 300.0 Rev. 2.1	Bromide	48		mg Br/L	P385582	
	SM 2320 B-2011	Total Alkalinity	122		mg CaCO3/L	P384846	
	SM 2540 D-2011	TSS	4	I	mg/L	P385128	
	SM 4500 F-C-2011	Fluoride	1.1		mg F/L	P384852	
2183027	EPA 350.1 Rev. 2.0	Ammonia-N	0.063		mg N/L	P384820	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.59		mg N/L	P384698	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.008	I	mg N/L	P384859	
	EPA 365.1 Rev. 2.0	Total-P	0.13		mg P/L	P384877	
	SM 5310 B-2011	Organic Carbon	6.1		mg C/L	P384782	
2183028	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.11		mg P/L	P384673	
2183045	EPA 8321B	2,4-D	0.0020	U	ug/L	P384706	
		Acesulfame K**	0.10	UJ	ug/L	P384657	SUR
		AMPA**	1.0	U	ug/L	P384657	
		Sucralose**	0.94		ug/L	P384657	
		Acetaminophen**	0.0080	U	ug/L	P384706	
		Acetamiprid**	0.0020	U	ug/L	P384706	
		Endothall**	0.25	UJ	ug/L	P384657	SUR
		Glufosinate**	1.0	U	ug/L	P384657	
		Glyphosate**	1.0	U	ug/L	P384657	
		Afidopyropen**	0.0020	U	ug/L	P384706	
		Bentazon	0.0031	I	ug/L	P384706	
		Benzovindiflupyr**	0.0020	U	ug/L	P384706	
		Carbamazepine**	8.0E-04	U	ug/L	P384706	
		Clothianidin**	0.0020	U	ug/L	P384706	
		Dinotefuran**	0.0020	U	ug/L	P384706	
		Diuron	0.0055	I	ug/L	P384706	
		Fenuron	0.016	U	ug/L	P384706	
		Fluridone**	0.0058		ug/L	P384706	
		Imazapyr**	0.0040	U	ug/L	P384706	
		Hydrocodone**	0.0020	U	ug/L	P384706	
		Ibuprofen**	0.020	U	ug/L	P384706	
		Imidacloprid	0.0058	I	ug/L	P384706	
		Linuron	0.0040	U	ug/L	P384706	
		Mandestrobin**	0.0020	U	ug/L	P384706	
		MCP	0.0020	U	ug/L	P384706	
		Naproxen**	0.0080	U	ug/L	P384706	
		Primidone**	0.0049	I	ug/L	P384706	
		Pyraclostrobin**	0.0020	U	ug/L	P384706	
		Thiamethoxam**	0.0020	U	ug/L	P384706	
		Tolfenpyrad**	0.0020	U	ug/L	P384706	
		Triclopyr**	0.0040	U	ug/L	P384706	
2183053	EPA 200.7 Rev. 4.4	Barium	14	I	ug/L	P385019	

Field ID: G1SW0099

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2183053	EPA 200.7 Rev. 4.4	Calcium	332		mg/L	P385019	
		Chromium	7.4	I	ug/L	P385019	
		Iron	120	U	ug/L	P385019	
		Manganese	15	I	ug/L	P385019	
		Potassium	310		mg/L	P385019	
		Sodium	8.22E+03		mg/L	P385019	
	EPA 200.8 Rev. 5.4	Zinc	20	U	ug/L	P385019	
		Aluminum	96		ug/L	P385019	
		Antimony	0.20	U	ug/L	P385019	
		Arsenic	2.69		ug/L	P385019	
		Cadmium	0.080	U	ug/L	P385019	
		Copper	3.4		ug/L	P385019	
		Lead	0.80	U	ug/L	P385019	
		Nickel	2.0	U	ug/L	P385019	
		Selenium	0.80	U	ug/L	P385019	
		Silver	0.040	U	ug/L	P385019	
		Thallium	0.40	U	ug/L	P385019	

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: MDL for some parameters elevated due to matrix interference. Results confirmed in sample duplicate. Refer to the Lab Analysis Report for an explanation of QC Codes.

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium, potassium, and sodium are unavailable because of high analyte concentration in the QC sample.

Sample Location: PP Ditch #1 @ 71st St

Collection Date/Time: 07/14/2020 11:10

Field ID: G5SW0134

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2183023	EPA 180.1 Rev. 2.0	Turbidity	9.2		NTU	P384668	
	EPA 300.0 Rev. 2.1	Bromide	10		mg Br/L	P385582	
	SM 2320 B-2011	Total Alkalinity	151		mg CaCO3/L	P384846	
	SM 2540 D-2011	TSS	10	I	mg/L	P385127	
	SM 4500 F-C-2011	Fluoride	0.45		mg F/L	P384852	
2183024	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P384820	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P384698	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.021		mg N/L	P384859	
	EPA 365.1 Rev. 2.0	Total-P	0.13		mg P/L	P384877	
	SM 5310 B-2011	Organic Carbon	17		mg C/L	P384780	
2183025	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.026		mg P/L	P384673	
2183043	EPA 8321B	Aldicarb	0.020	U	ug/L	P384706	
		Aldicarb Sulfone	0.0020	U	ug/L	P384706	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P384706	
		Carbaryl	0.0020	U	ug/L	P384706	
		Carbofuran	0.0020	U	ug/L	P384706	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P384706	
		Methiocarb	0.0020	U	ug/L	P384706	
		Methomyl	0.0020	U	ug/L	P384706	
		Oxamyl	0.0020	U	ug/L	P384706	
		Propoxur	0.0020	U	ug/L	P384706	
		2,4-D	0.17		ug/L	P384706	
		Acesulfame K**	0.10	UJ	ug/L	P384657	SUR
		AMPA**	1.2	I	ug/L	P384657	
2183044		Sucralose**	3.7		ug/L	P384657	
		Acetaminophen**	0.0080	U	ug/L	P384706	
		Acetamiprid**	0.0020	U	ug/L	P384706	
		Endothal**	0.25	UJ	ug/L	P384657	SUR
		Glufosinate**	1.0	U	ug/L	P384657	
		Glyphosate**	1.9	I	ug/L	P384657	
		Afidopyropen**	0.0020	U	ug/L	P384706	
		Bentazon	0.038		ug/L	P384706	
		Benzovindiflupyr**	0.0020	U	ug/L	P384706	
		Carbamazepine**	0.0022	I	ug/L	P384706	
		Clothianidin**	0.011		ug/L	P384706	
		Dinotefuran**	0.0025	I	ug/L	P384706	
		Diuron	0.013		ug/L	P384706	
		Fenuron	0.016	U	ug/L	P384706	
		Fluridone**	1.3		ug/L	P384706	
		Imazapyr**	0.16		ug/L	P384706	
		Hydrocodone**	0.0020	U	ug/L	P384706	
		Ibuprofen**	0.020	U	ug/L	P384706	
		Imidacloprid	0.061		ug/L	P384706	

Field ID: G5SW0134

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2183044	EPA 8321B	Linuron	0.0040	U	ug/L	P384706	
		Mandestrobin**	0.0020	U	ug/L	P384706	
		MCP	0.0053	I	ug/L	P384706	
		Naproxen**	0.0080	U	ug/L	P384706	
		Primidone**	0.015	I	ug/L	P384706	
		Pyraclostrobin**	0.0020	U	ug/L	P384706	
		Thiamethoxam**	0.0020	U	ug/L	P384706	
		Tolfenpyrad**	0.0020	U	ug/L	P384706	
		Triclopyr**	0.0040	U	ug/L	P384706	
2183049	EPA 8270E	Aldrin	4.2	U	ng/L	P384679	
		Alpha-BHC	2.1	U	ng/L	P384679	
		Alpha-Chlordane	1.0	U	ng/L	P384679	
		Beta-BHC	8.4	U	ng/L	P384679	
		Beta-Cyfluthrin**	16	U	ng/L	P384679	
		Bifenthrin**	4.2	U	ng/L	P384679	
		Delta-BHC	8.4	U	ng/L	P384679	
		Gamma-BHC	8.4	U	ng/L	P384679	
		Chlorothalonil	2.1	U	ng/L	P384679	
		Cis-Nonachlor**	1.0	U	ng/L	P384679	
		Cypermethrin	21	U	ng/L	P384679	
		Dacthal**	1.0	U	ng/L	P384679	
		DDD-p,p'	5.2	U	ng/L	P384679	
		DDE-p,p'	5.2	U	ng/L	P384679	
		DDT-p,p'	6.3	U	ng/L	P384679	
		Dicofol	31	U	ng/L	P384679	
		Dieldrin	4.2	U	ng/L	P384679	
		Endosulfan I	4.2	U	ng/L	P384679	
		Endosulfan II	4.2	U	ng/L	P384679	
		Endosulfan Sulfate	2.1	U	ng/L	P384679	
		Endrin	2.1	U	ng/L	P384679	
		Endrin Aldehyde	2.1	U	ng/L	P384679	
		Endrin Ketone	2.1	UJ	ng/L	P384679	LCS, RPD
		Ethalfuralin**	3.1	U	ng/L	P384679	
		Gamma-Chlordane	1.0	U	ng/L	P384679	
		Heptachlor	1.6	U	ng/L	P384679	
		Heptachlor Epoxide	2.1	U	ng/L	P384679	
		Hexachlorobenzene	2.1	U	ng/L	P384679	
		Lambda-Cyhalothrin**	16	U	ng/L	P384679	
		Methoxychlor	4.2	U	ng/L	P384679	
		Mirex	2.1	U	ng/L	P384679	
		Permethrin	10	U	ng/L	P384679	
		Phenothrin**	31	U	ng/L	P384679	
		Prallethrin**	26	U	ng/L	P384679	
		Trans-Nonachlor**	1.0	U	ng/L	P384679	
		Trifluralin	2.6	U	ng/L	P384679	

Field ID: G5SW0134

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2183049	EPA 8276	Chlordane	7.2	I	ng/L	P384679	CCV
		Toxaphene	31	UJ	ng/L	P384679	
2183050	EPA 8270E	Acetochlor	0.24	U	ng/L	P384651	RPD
		Alachlor	0.24	U	ng/L	P384651	
		Ametryn	0.57	U	ng/L	P384651	
		Atrazine	80		ng/L	P384651	
		Atrazine Desethyl	6.8		ng/L	P384651	
		Azinphos Methyl	1.9	U	ng/L	P384651	
		Bromacil	0.48	U	ng/L	P384651	
		Butylate	0.38	U	ng/L	P384651	
		Carbophenothion	0.48	U	ng/L	P384651	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P384651	
		Chlorpyrifos Methyl	0.048	U	ng/L	P384651	
		Cyanazine	3.1	U	ng/L	P384651	
		Demeton	1.4	U	ng/L	P384651	
		Diazinon	0.12	U	ng/L	P384651	
		Dimethenamid**	0.096	U	ng/L	P384651	
		Disulfoton	0.48	U	ng/L	P384651	
		Dithiopyr**	0.15	I	ng/L	P384651	
		EPTC	1.2	U	ng/L	P384651	
		Ethion	0.14	U	ng/L	P384651	
		Ethoprop	0.096	U	ng/L	P384651	
		Fenamiphos	0.48	U	ng/L	P384651	
		Fipronil	1.3		ng/L	P384651	
		Fipronil Desulfinyl**	3.1		ng/L	P384651	
		Fipronil Sulfide	1.2		ng/L	P384651	
		Fipronil Sulfone	3.4		ng/L	P384651	
		Flumioxazin**	1.7	U	ng/L	P384651	
		Fonofos	0.19	U	ng/L	P384651	
		Hexazinone	1.0	I	ng/L	P384651	
		Imazalil**	0.72	U	ng/L	P384651	
		Malathion	0.33	U	ng/L	P384651	
		Metaxyl	0.72	U	ng/L	P384651	
		Metolachlor	0.48	U	ng/L	P384651	
		Metribuzin	3.1	U	ng/L	P384651	
		Mevinphos	0.48	U	ng/L	P384651	
		Molinate	0.29	U	ng/L	P384651	
		Naled**	1.4	U	ng/L	P384651	
		Norflurazon	0.48	U	ng/L	P384651	
		Oxadiazon	8.1		ng/L	P384651	
		Parathion Ethyl	0.24	U	ng/L	P384651	
		Parathion Methyl	0.53	U	ng/L	P384651	
		Pendimethalin	0.96	U	ng/L	P384651	
		Phorate	0.24	U	ng/L	P384651	
		Prodiamine**	0.28	I	ng/L	P384651	

Field ID: G5SW0134

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2183050	EPA 8270E	Prometon	0.86	U	ng/L	P384651	
		Prometryn	0.19	U	ng/L	P384651	
		Pronamide**	0.14	U	ng/L	P384651	
		Propiconazole**	14		ng/L	P384651	
		Simazine	0.48	U	ng/L	P384651	
		Sulfentrazone**	10		ng/L	P384651	
		Tebuconazole**	4.4		ng/L	P384651	
		Terbufos	0.096	U	ng/L	P384651	
		Terbuthylazine	0.41	U	ng/L	P384651	
2183052	EPA 200.7 Rev. 4.4	Barium	36		ug/L	P385019	
		Calcium	146		mg/L	P385019	
		Chromium	3.0	U	ug/L	P385019	
		Iron	260	I	ug/L	P385019	
		Manganese	25		ug/L	P385019	
		Potassium	72		mg/L	P385019	
		Sodium	1.82E+03		mg/L	P385019	
		Zinc	15	U	ug/L	P385019	
	EPA 200.8 Rev. 5.4	Aluminum	53	I	ug/L	P385019	
		Antimony	0.35	I	ug/L	P385019	
		Arsenic	2.16		ug/L	P385019	
		Cadmium	0.080	U	ug/L	P385019	
		Copper	1.6	U	ug/L	P385019	
		Lead	0.80	U	ug/L	P385019	
		Nickel	2.0	U	ug/L	P385019	
		Selenium	0.80	U	ug/L	P385019	
		Silver	0.040	U	ug/L	P385019	
		Thallium	0.40	U	ug/L	P385019	

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: MDL for some parameters elevated due to matrix interference. Results confirmed in sample duplicate. Refer to the Lab Analysis Report for an explanation of QC Codes.

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

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

EPA 8270E: MS accuracy for some parameters not assessed due to high content of these parameters in the sample spiked.

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium, potassium, and sodium 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: P384668

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P385019

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

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P385019

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Cadmium	0.020	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: P385582

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P384820

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P384698

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P384859

Component	Result	Code	Units
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Quality Assurance Report

Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P384859

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P384877

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P384673

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

Reference Method: EPA 8270E
Batch ID: P384651

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	2.0	U	ng/L
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	1.5	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
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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P384651

Component	Result	Code	Units
Molinate	0.30	U	ng/L
Naled	1.5	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.10	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: P384679

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	8.0	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'	5.0	U	ng/L
DDE-p,p'	5.0	U	ng/L
DDT-p,p'	6.0	U	ng/L
Delta-BHC	8.0	U	ng/L
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
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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P384679

Component	Result	Code	Units
Methoxychlor	4.0	U	ng/L
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L
Phenothrin	30	U	ng/L
Prallethrin	25	U	ng/L
Trans-Nonachlor	1.0	U	ng/L
Trifluralin	2.5	U	ng/L

Reference Method: EPA 8276
Batch ID: P384679

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

Reference Method: EPA 8321B
Batch ID: P384657

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: P384706

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
3-Hydroxycarbofuran	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	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
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Carbaryl	0.0020	U	ug/L
Carbofuran	0.0020	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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P384706

Component	Result	Code	Units
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
Methiocarb	0.0020	U	ug/L
Methomyl	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Oxamyl	0.0020	U	ug/L
Primidone	0.0040	U	ug/L
Propoxur	0.0020	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 2320 B-2011
Batch ID: P384846

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

Reference Method: SM 2540 D-2011
Batch ID: P385127

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P385128

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P384852

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P384780

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

Reference Method: SM 5310 B-2011
Batch ID: P384782

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: P385019

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	103		P	85 - 115
Calcium	104		P	85 - 115
Chromium	101		P	85 - 115
Iron	106		P	85 - 115
Manganese	102		P	85 - 115
Potassium	101		P	85 - 115
Sodium	99.1		P	85 - 115
Zinc	106		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P385019

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	100		P	85 - 115
Antimony	102		P	85 - 115
Arsenic	104		P	85 - 115
Cadmium	104		P	85 - 115
Copper	103		P	85 - 115
Lead	106		P	85 - 115
Nickel	103		P	85 - 115
Selenium	101		P	85 - 115
Silver	108		P	85 - 115
Thallium	105		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P385582

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Bromide	96.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P384820

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P384698

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P384859

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	102		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P384877

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P384877

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P384673

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	98.2		P	90 - 110

Reference Method: EPA 8270E
 Batch ID: P384651

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	90.5	90.0	P/P	71 - 122
Alachlor	91.5	91.8	P/P	70 - 121
Ametryn	90.6	105	P/P	49 - 137
Atrazine	98.1	96.1	P/P	76 - 125
Atrazine Desethyl	75.9	75.0	P/P	31 - 144
Azinphos Methyl	138	127	P/P	67 - 150
Bromacil	88.1	84.2	P/P	36 - 121
Butylate	63.8	62.6	P/P	33 - 88.0
Carbophenothion	98.0	103	P/P	50 - 150
Chlorpyrifos Ethyl	96.8	102	P/P	73 - 117
Chlorpyrifos Methyl	96.1	99.3	P/P	68 - 121
Cyanazine	106	103	P/P	20 - 250
Demeton	86.8	86.9	P/P	30 - 123
Diazinon	94.5	92.9	P/P	70 - 128
Dimethenamid	91.2	90.0	P/P	66 - 122
Disulfoton	87.2	86.2	P/P	46 - 124
Dithiopyr	90.8	92.3	P/P	69 - 122
EPTC	61.1	58.8	P/P	31 - 90.0
Ethion	102	106	P/P	45 - 135
Ethoprop	90.4	90.3	P/P	59 - 118
Fenamiphos	100	94.6	P/P	30 - 136
Fipronil	95.7	92.0	P/P	57 - 127
Fipronil Desulfinyl	100	96.9	P/P	51 - 122
Fipronil Sulfide	89.0	92.1	P/P	57 - 119
Fipronil Sulfone	93.5	93.3	P/P	51 - 119
Flumioxazin	131	134	P/P	70 - 200
Fonofos	88.6	90.5	P/P	60 - 120
Hexazinone	94.1	90.0	P/P	57 - 142
Imazalil	93.9	105	P/P	50 - 150
Malathion	107	111	P/P	67 - 128
Metalaxyl	94.6	89.8	P/P	21 - 148
Metolachlor	87.2	88.1	P/P	70 - 120
Metribuzin	104	101	P/P	20 - 253
Mevinphos	87.3	85.4	P/P	47 - 116
Molinate	74.3	68.8	P/P	41 - 99.0
Naled	74.6	69.3	P/P	40 - 130
Norflurazon	96.5	89.7	P/P	54 - 127
Oxadiazon	84.5	88.6	P/P	65 - 122
Parathion Ethyl	86.3	92.0	P/P	71 - 113
Parathion Methyl	101	100	P/P	73 - 129

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P384651

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Pendimethalin	95.2	112	P/P	63 - 130
Phorate	90.9	92.3	P/P	48 - 118
Prodiamine	74.1	79.1	P/P	20 - 144
Prometon	86.0	82.5	P/P	53 - 120
Prometryn	90.6	86.8	P/P	63 - 119
Pronamide	103	94.2	P/P	50 - 150
Propiconazole	85.2	84.0	P/P	50 - 150
Simazine	99.0	96.3	P/P	77 - 129
Sulfentrazone	90.1	80.3	P/P	50 - 150
Tebuconazole	52.0	47.6	P/P	20 - 118
Terbufos	96.1	99.5	P/P	61 - 119
Terbuthylazine	94.0	93.3	P/P	75 - 119

Reference Method: EPA 8270E
Batch ID: P384679

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	40.7	41.8	P/P	20 - 87.0
Alpha-BHC	85.4	91.4	P/P	65 - 142
Alpha-Chlordane	91.2	90.8	P/P	58 - 106
Beta-BHC	109	106	P/P	65 - 179
Beta-Cyfluthrin	96.3	98.9	P/P	39 - 153
Bifenthrin	89.4	88.5	P/P	38 - 128
Chlorothalonil	51.3	58.1	P/P	20 - 214
Cis-Nonachlor	91.8	90.6	P/P	56 - 113
Cypermethrin	94.5	98.7	P/P	37 - 130
Dacthal	95.4	95.8	P/P	75 - 109
DDD-p,p'	98.3	96.2	P/P	66 - 119
DDE-p,p'	86.4	84.8	P/P	53 - 108
DDT-p,p'	85.0	85.0	P/P	57 - 133
Delta-BHC	108	105	P/P	68 - 187
Dicofol	114	120	P/P	66 - 123
Dieldrin	96.8	95.3	P/P	65 - 111
Endosulfan I	94.1	94.8	P/P	65 - 115
Endosulfan II	110	107	P/P	68 - 133
Endosulfan Sulfate	103	103	P/P	62 - 127
Endrin	100	102	P/P	64 - 122
Endrin Aldehyde	120	120	P/P	61 - 132
Endrin Ketone	157	85.5	F/P	66 - 120
Ethalfuralin	78.0	77.4	P/P	57 - 127
Gamma-BHC	102	101	P/P	71 - 158
Gamma-Chlordane	87.1	86.1	P/P	53 - 106
Heptachlor	75.5	77.5	P/P	45 - 96.0
Heptachlor Epoxide	92.7	93.2	P/P	64 - 109
Hexachlorobenzene	70.2	70.6	P/P	46 - 103
Lambda-Cyhalothrin	102	104	P/P	38 - 145
Methoxychlor	107	106	P/P	69 - 149
Mirex	58.2	58.9	P/P	31 - 90.0
Permethrin	79.5	80.8	P/P	41 - 108
Phenothrin	46.3	47.0	P/P	22 - 91.0
Prallethrin	72.8	64.7	P/P	32 - 92.0
Trans-Nonachlor	87.5	86.5	P/P	50 - 107

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P384679

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Trifluralin	80.5	79.6	P/P	58 - 119

Reference Method: EPA 8276
Batch ID: P384679

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	88.0	91.6	P/P	47 - 119
Toxaphene	110	108	P/P	41 - 112

Reference Method: EPA 8321B
Batch ID: P384657

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	90.8		P	40 - 150
AMPA	83.0		P	40 - 150
Endothall	77.4		P	40 - 150
Glufosinate	99.5		P	40 - 150
Glyphosate	92.6		P	40 - 140
Sucralose	93.1		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P384706

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	104		P	30 - 160
3-Hydroxycarbofuran	75.3		P	30 - 160
Acetaminophen	62.1		P	30 - 160
Acetamiprid	76.1		P	30 - 160
Afidopyropen	59.3		P	30 - 160
Aldicarb	78.1		P	30 - 160
Aldicarb Sulfone	84.7		P	30 - 160
Aldicarb Sulfoxide	81.4		P	30 - 160
Bentazon	51.4		P	30 - 160
Benzovindiflupyr	61.7		P	30 - 160
Carbamazepine	61.6		P	30 - 160
Carbaryl	49.1		P	30 - 160
Carbofuran	53.9		P	30 - 160
Clothianidin	77.9		P	30 - 160
Dinotefuran	85.6		P	30 - 160
Diuron	51.4		P	30 - 160
Fenuron	88.8		P	30 - 160
Fluridone	79.7		P	30 - 160
Hydrocodone	73.7		P	30 - 160
Ibuprofen	66.1		P	30 - 160
Imazapyr	95.9		P	30 - 160
Imidacloprid	93.7		P	30 - 160
Linuron	57.5		P	30 - 160
Mandestrobin	66.9		P	30 - 160
MCPP	115		P	30 - 160
Methiocarb	49.5		P	30 - 160
Methomyl	84.2		P	30 - 160
Naproxen	71.3		P	30 - 160

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P384706

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Oxamyl	83.5		P	30 - 160
Primidone	76.7		P	30 - 160
Propoxur	55.5		P	30 - 160
Pyraclostrobin	68.6		P	30 - 160
Thiamethoxam	89.4		P	30 - 160
Tolfenpyrad	56.2		P	30 - 160
Triclopyr	92.0		P	30 - 160

Reference Method: SM 2320 B-2011
Batch ID: P384846

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.8		P	93 - 104

Reference Method: SM 4500 F-C-2011
Batch ID: P384852

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.5		P	90 - 106

Reference Method: SM 5310 B-2011
Batch ID: P384780

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	100		P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P384782

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: P385019

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2184386	Barium	98.6	101	P/P	70 - 130
2184386	Chromium	98.2	99.3	P/P	70 - 130
2184386	Iron	101	101	P/P	70 - 130
2184386	Manganese	98.5	101	P/P	70 - 130
2184386	Zinc	104	105	P/P	70 - 130
2184819	Barium	98.5		P	70 - 130
2184819	Chromium	97.8		P	70 - 130
2184819	Iron	107		P	70 - 130
2184819	Manganese	98.3		P	70 - 130
2184819	Zinc	105		P	70 - 130

Reference Method: EPA 200.8 Rev. 5.4
 Batch ID: P385019

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2184386	Aluminum	101	101	P/P	80 - 120
2184386	Antimony	104	105	P/P	80 - 120
2184386	Arsenic	111	110	P/P	80 - 120
2184386	Cadmium	99.2	103	P/P	80 - 120
2184386	Copper	107	108	P/P	80 - 120
2184386	Lead	111	110	P/P	80 - 120
2184386	Nickel	101	103	P/P	80 - 120
2184386	Selenium	101	103	P/P	80 - 120
2184386	Silver	102	104	P/P	80 - 120
2184386	Thallium	109	109	P/P	80 - 120
2184819	Aluminum	103		P	80 - 120
2184819	Antimony	105		P	80 - 120
2184819	Arsenic	110		P	80 - 120
2184819	Cadmium	101		P	80 - 120
2184819	Copper	109		P	80 - 120
2184819	Lead	112		P	80 - 120
2184819	Nickel	102		P	80 - 120
2184819	Selenium	104		P	80 - 120
2184819	Silver	102		P	80 - 120
2184819	Thallium	110		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P385582

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182961	Bromide	92.9		P	90 - 110
2183177	Bromide	93.3	92.9	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P384820

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2183001	Ammonia-N	96.6	96.9	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P384698

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182554	Kjeldahl Nitrogen	95.2	93.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P384859

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182999	NO2NO3-N	100	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P384877

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182999	Total-P	105	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P384673

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2183025	O-Phosphate-P	97.2	97.5	P/P	90 - 110

Reference Method: EPA 8270E
 Batch ID: P384651

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182712	Acetochlor	96.4	93.5	P/P	68 - 126
2182712	Alachlor	98.6	93.6	P/P	66 - 125
2182712	Azinphos Methyl	133	124	P/P	54 - 162
2182712	Bromacil	91.8	86.3	P/P	34 - 144
2182712	Butylate	51.2	57.6	P/P	16 - 92.0
2182712	Carbophenothion	83.6	85.5	P/P	50 - 150
2182712	Chlorpyrifos Ethyl	104	97.1	P/P	63 - 124
2182712	Chlorpyrifos Methyl	90.6	92.0	P/P	64 - 125
2182712	Cyanazine	106	95.7	P/P	13 - 245
2182712	Demeton	96.5	95.8	P/P	20 - 154
2182712	Diazinon	104	98.8	P/P	66 - 141
2182712	Dimethenamid	102	98.6	P/P	50 - 130
2182712	Disulfoton	89.0	89.9	P/P	55 - 130
2182712	Dithiopyr	97.5	93.8	P/P	66 - 122
2182712	EPTC	50.4	60.5	P/P	15 - 93.0
2182712	Ethion	89.0	95.8	P/P	15 - 148
2182712	Ethoprop	90.7	91.9	P/P	59 - 126
2182712	Fenamiphos	75.9	108	P/P	39 - 137
2182712	Fipronil	107	99.9	P/P	47 - 131
2182712	Fipronil Desulfinyl	106	97.4	P/P	43 - 121
2182712	Fipronil Sulfide	89.2	83.2	P/P	29 - 134
2182712	Fipronil Sulfone	90.2	86.8	P/P	19 - 131
2182712	Flumioxazin	198	185	P/P	70 - 200
2182712	Fonofos	88.2	85.8	P/P	62 - 128
2182712	Hexazinone	104	106	P/P	58 - 154
2182712	Imazalil	74.5	66.1	P/P	50 - 150
2182712	Malathion	102	106	P/P	54 - 135
2182712	Metalaxyl	94.6	90.0	P/P	46 - 136

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P384651

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182712	Metolachlor	90.4	88.0	P/P	62 - 126
2182712	Metribuzin	111	104	P/P	44 - 277
2182712	Mevinphos	88.3	90.2	P/P	44 - 135
2182712	Molinate	71.4	74.4	P/P	31 - 104
2182712	Naled	84.7	80.4	P/P	40 - 130
2182712	Norflurazon	92.0	87.1	P/P	32 - 134
2182712	Oxadiazon	79.1	76.6	P/P	55 - 123
2182712	Parathion Ethyl	92.2	94.7	P/P	67 - 120
2182712	Parathion Methyl	104	105	P/P	70 - 140
2182712	Pendimethalin	118	120	P/P	59 - 145
2182712	Phorate	86.0	84.0	P/P	52 - 127
2182712	Prodiamine	112	110	P/P	11 - 157
2182712	Prometon	91.6	86.6	P/P	55 - 130
2182712	Prometryn	95.5	91.7	P/P	55 - 127
2182712	Pronamide	121	111	P/P	50 - 150
2182712	Sulfentrazone	90.7	85.7	P/P	50 - 150
2182712	Tebuconazole	50.7	49.6	P/P	10 - 122
2182712	Terbufos	97.7	96.9	P/P	65 - 131
2182712	Terbutylazine	106	100	P/P	63 - 131

Reference Method: EPA 8270E
Batch ID: P384679

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2183192	Aldrin	52.8	51.2	P/P	32 - 82.0
2183192	Alpha-BHC	93.9	95.4	P/P	68 - 157
2183192	Alpha-Chlordane	88.1	88.1	P/P	54 - 108
2183192	Beta-BHC	112	116	P/P	54 - 200
2183192	Beta-Cyfluthrin	92.8	87.9	P/P	50 - 154
2183192	Bifenthrin	77.2	75.6	P/P	49 - 124
2183192	Chlorothalonil	38.4	29.2	P/P	10 - 289
2183192	Cis-Nonachlor	87.9	87.8	P/P	53 - 112
2183192	Cypermethrin	91.8	90.3	P/P	43 - 141
2183192	Dacthal	98.1	98.7	P/P	75 - 112
2183192	DDD-p,p'	94.8	95.9	P/P	58 - 125
2183192	DDE-p,p'	77.8	78.3	P/P	50 - 108
2183192	DDT-p,p'	79.8	79.5	P/P	52 - 140
2183192	Delta-BHC	147	141	P/P	61 - 228
2183192	Dicofol	104	99.0	P/P	59 - 130
2183192	Dieldrin	96.0	97.8	P/P	57 - 121
2183192	Endosulfan I	94.7	96.5	P/P	62 - 123
2183192	Endosulfan II	113	118	P/P	48 - 163
2183192	Endosulfan Sulfate	113	110	P/P	63 - 132
2183192	Endrin	99.2	102	P/P	58 - 128
2183192	Endrin Aldehyde	109	113	P/P	44 - 126
2183192	Endrin Ketone	103	103	P/P	68 - 127
2183192	Ethalfuralin	75.0	76.6	P/P	55 - 131
2183192	Gamma-BHC	110	112	P/P	54 - 206
2183192	Gamma-Chlordane	81.8	82.9	P/P	52 - 105
2183192	Heptachlor	68.0	65.9	P/P	47 - 94.0
2183192	Heptachlor Epoxide	93.4	93.4	P/P	61 - 113
2183192	Hexachlorobenzene	61.0	62.3	P/P	45 - 100

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
 Batch ID: P384679

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2183192	Lambda-Cyhalothrin	96.7	93.2	P/P	37 - 165
2183192	Methoxychlor	96.7	94.8	P/P	63 - 153
2183192	Mirex	60.4	59.8	P/P	38 - 90.0
2183192	Permethrin	73.2	70.9	P/P	45 - 112
2183192	Phenothrin	55.6	54.0	P/P	22 - 118
2183192	Prallethrin	76.6	78.2	P/P	21 - 114
2183192	Trans-Nonachlor	82.7	83.1	P/P	50 - 103
2183192	Trifluralin	75.8	75.7	P/P	57 - 122

Reference Method: EPA 8276
 Batch ID: P384679

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2183537	Chlordane	92.9	91.9	P/P	34 - 129
2183537	Toxaphene	106	112	P/P	26 - 123

Reference Method: EPA 8321B
 Batch ID: P384657

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182983	Acesulfame K	99.2	95.0	P/P	40 - 150
2182983	AMPA	86.0	83.0	P/P	40 - 150
2182983	Endothall	85.5	88.4	P/P	40 - 150
2182983	Glufosinate	85.1	84.0	P/P	40 - 150
2182983	Glyphosate	70.4	65.3	P/P	40 - 140
2182983	Sucralose	106	98.9	P/P	40 - 150

Reference Method: EPA 8321B
 Batch ID: P384706

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182702	3-Hydroxycarbofuran	56.6	56.8	P/P	30 - 160
2182702	Aldicarb	59.7	49.0	P/P	30 - 160
2182702	Aldicarb Sulfone	69.6	65.8	P/P	30 - 160
2182702	Aldicarb Sulfoxide	36.2	35.1	P/P	30 - 160
2182702	Carbaryl	40.5	36.3	P/P	30 - 160
2182702	Carbofuran	45.5	41.1	P/P	30 - 160
2182702	Methiocarb	44.6	40.1	P/P	30 - 160
2182702	Methomyl	68.1	67.1	P/P	30 - 160
2182702	Oxamyl	62.4	61.0	P/P	30 - 160
2182702	Propoxur	42.8	39.9	P/P	30 - 160
2182738	2,4-D	117	102	P/P	30 - 160
2182738	Acetaminophen	69.7	77.9	P/P	30 - 160
2182738	Acetamiprid	66.7	66.9	P/P	30 - 160
2182738	Afidopyropen	68.8	68.0	P/P	30 - 160
2182738	Bentazon	44.0	41.1	P/P	30 - 160
2182738	Benzovindiflupyr	70.8	65.0	P/P	30 - 160
2182738	Carbamazepine	52.3	53.9	P/P	30 - 160
2182738	Clothianidin	61.9	66.0	P/P	30 - 160
2182738	Dinotefuran	73.1	76.9	P/P	30 - 160
2182738	Diuron	45.6	49.5	P/P	30 - 160
2182738	Fenuron	70.2	73.3	P/P	30 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P384706

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182738	Fluridone	89.5	82.3	P/P	30 - 160
2182738	Hydrocodone	57.4	62.3	P/P	30 - 160
2182738	Ibuprofen	71.6	63.0	P/P	30 - 160
2182738	Imazapyr	98.9	99.6	P/P	30 - 160
2182738	Imidacloprid	114	120	P/P	30 - 160
2182738	Linuron	61.9	58.7	P/P	30 - 160
2182738	Mandestrobin	74.5	73.2	P/P	30 - 160
2182738	MCPP	121	115	P/P	30 - 160
2182738	Naproxen	68.9	73.0	P/P	30 - 160
2182738	Primidone	80.6	75.3	P/P	30 - 160
2182738	Pyraclostrobin	77.3	75.0	P/P	30 - 160
2182738	Thiamethoxam	79.7	84.7	P/P	30 - 160
2182738	Tolfenpyrad	47.5	47.4	P/P	30 - 160
2182738	Triclopyr	103	89.1	P/P	30 - 160

Reference Method: SM 4500 F-C-2011
Batch ID: P384852

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182995	Fluoride	99.7	99.7	P/P	94 - 107

Reference Method: SM 5310 B-2011
Batch ID: P384780

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182968	Organic Carbon	99.7	99.8	P/P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P384782

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2181853	Organic Carbon	101	101	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P384668

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182995	Turbidity	0.959	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P385019

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2184386	Barium	1.93	Spike	P	0 - 20
2184386	Calcium	1.13	Spike	P	0 - 20
2184386	Chromium	1.10	Spike	P	0 - 20
2184386	Iron	0.328	Spike	P	0 - 20
2184386	Manganese	1.89	Spike	P	0 - 20
2184386	Potassium	0.849	Spike	P	0 - 20
2184386	Sodium	0.458	Spike	P	0 - 20
2184386	Zinc	1.80	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P385019

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2184386	Aluminum	0.0111	Spike	P	0 - 20
2184386	Antimony	1.10	Spike	P	0 - 20
2184386	Arsenic	0.301	Spike	P	0 - 20
2184386	Cadmium	3.51	Spike	P	0 - 20
2184386	Copper	1.58	Spike	P	0 - 20
2184386	Lead	0.772	Spike	P	0 - 20
2184386	Nickel	2.00	Spike	P	0 - 20
2184386	Selenium	2.24	Spike	P	0 - 20
2184386	Silver	2.01	Spike	P	0 - 20
2184386	Thallium	0.0250	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P385582

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2183177	Bromide	0.308	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P384820

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2183001	Ammonia-N	0.310	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P384698

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P384698

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182554	Kjeldahl Nitrogen	1.32	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P384859

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182999	NO2NO3-N	0.499	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P384877

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182999	Total-P	1.59	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P384673

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2183025	O-Phosphate-P	0.243	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P384651

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182712	Acetochlor	3.05	Spike	P	0 - 30
2182712	Alachlor	5.15	Spike	P	0 - 30
2182712	Ametryn	6.72	Spike	P	0 - 30
2182712	Atrazine	0.746	Spike	P	0 - 30
2182712	Atrazine Desethyl	2.03	Spike	P	0 - 30
2182712	Azinphos Methyl	7.16	Spike	P	0 - 30
2182712	Bromacil	6.17	Spike	P	0 - 30
2182712	Butylate	11.7	Spike	P	0 - 30
2182712	Carbophenothion	2.17	Spike	P	0 - 30
2182712	Chlorpyrifos Ethyl	6.81	Spike	P	0 - 30
2182712	Chlorpyrifos Methyl	1.53	Spike	P	0 - 30
2182712	Cyanazine	10.5	Spike	P	0 - 30
2182712	Demeton	0.659	Spike	P	0 - 30
2182712	Diazinon	5.24	Spike	P	0 - 30
2182712	Dimethenamid	3.73	Spike	P	0 - 30
2182712	Disulfoton	1.05	Spike	P	0 - 30
2182712	Dithiopyr	3.61	Spike	P	0 - 30
2182712	EPTC	18.1	Spike	P	0 - 30
2182712	Ethion	7.34	Spike	P	0 - 30
2182712	Ethoprop	1.38	Spike	P	0 - 30
2182712	Fenamiphos	35.0	Spike	F	0 - 30
2182712	Fipronil	6.70	Spike	P	0 - 30
2182712	Fipronil Desulfinyl	6.62	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P384651

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182712	Fipronil Sulfide	5.44	Spike	P	0 - 30
2182712	Fipronil Sulfone	2.18	Spike	P	0 - 30
2182712	Flumioxazin	6.60	Spike	P	0 - 30
2182712	Fonofos	2.77	Spike	P	0 - 30
2182712	Hexazinone	2.16	Spike	P	0 - 30
2182712	Imazalil	12.1	Spike	P	0 - 30
2182712	Malathion	4.17	Spike	P	0 - 30
2182712	Metalaxyl	4.98	Spike	P	0 - 30
2182712	Metolachlor	2.68	Spike	P	0 - 30
2182712	Metribuzin	6.00	Spike	P	0 - 30
2182712	Mevinphos	2.14	Spike	P	0 - 30
2182712	Molinate	4.11	Spike	P	0 - 30
2182712	Naled	5.23	Spike	P	0 - 30
2182712	Norflurazon	5.47	Spike	P	0 - 30
2182712	Oxadiazon	3.08	Spike	P	0 - 30
2182712	Parathion Ethyl	2.67	Spike	P	0 - 30
2182712	Parathion Methyl	1.47	Spike	P	0 - 30
2182712	Pendimethalin	1.76	Spike	P	0 - 30
2182712	Phorate	2.36	Spike	P	0 - 30
2182712	Prodiamine	2.61	Spike	P	0 - 30
2182712	Prometon	5.62	Spike	P	0 - 30
2182712	Prometryn	4.13	Spike	P	0 - 30
2182712	Pronamide	8.99	Spike	P	0 - 30
2182712	Propiconazole	8.26	Spike	P	0 - 30
2182712	Simazine	5.70	Spike	P	0 - 30
2182712	Sulfentrazone	4.89	Spike	P	0 - 30
2182712	Tebuconazole	1.53	Spike	P	0 - 30
2182712	Terbufos	0.836	Spike	P	0 - 30
2182712	Terbutylazine	5.44	Spike	P	0 - 30
LFB	Acetochlor	0.549	LCS	P	0 - 30
LFB	Alachlor	0.331	LCS	P	0 - 30
LFB	Ametryn	14.5	LCS	P	0 - 30
LFB	Atrazine	2.05	LCS	P	0 - 30
LFB	Atrazine Desethyl	1.18	LCS	P	0 - 30
LFB	Azinphos Methyl	8.10	LCS	P	0 - 30
LFB	Bromacil	4.52	LCS	P	0 - 30
LFB	Butylate	1.98	LCS	P	0 - 30
LFB	Carbophenothion	4.94	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	5.39	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	3.21	LCS	P	0 - 30
LFB	Cyanazine	3.18	LCS	P	0 - 30
LFB	Demeton	0.147	LCS	P	0 - 30
LFB	Diazinon	1.77	LCS	P	0 - 30
LFB	Dimethenamid	1.37	LCS	P	0 - 30
LFB	Disulfoton	1.22	LCS	P	0 - 30
LFB	Dithiopyr	1.66	LCS	P	0 - 30
LFB	EPTC	3.81	LCS	P	0 - 30
LFB	Ethion	3.26	LCS	P	0 - 30
LFB	Ethoprop	0.177	LCS	P	0 - 30
LFB	Fenamiphos	5.95	LCS	P	0 - 30
LFB	Fipronil	3.95	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P384651

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Fipronil Desulfinyl	3.66	LCS	P	0 - 30
LFB	Fipronil Sulfide	3.43	LCS	P	0 - 30
LFB	Fipronil Sulfone	0.202	LCS	P	0 - 30
LFB	Flumioxazin	2.32	LCS	P	0 - 30
LFB	Fonofos	2.11	LCS	P	0 - 30
LFB	Hexazinone	4.48	LCS	P	0 - 30
LFB	Imazalil	10.8	LCS	P	0 - 30
LFB	Malathion	3.50	LCS	P	0 - 30
LFB	Metalaxyl	5.23	LCS	P	0 - 30
LFB	Metolachlor	1.01	LCS	P	0 - 30
LFB	Metribuzin	3.30	LCS	P	0 - 30
LFB	Mevinphos	2.24	LCS	P	0 - 30
LFB	Molinate	7.66	LCS	P	0 - 30
LFB	Naled	7.30	LCS	P	0 - 30
LFB	Norflurazon	7.23	LCS	P	0 - 30
LFB	Oxadiazon	4.82	LCS	P	0 - 30
LFB	Parathion Ethyl	6.34	LCS	P	0 - 30
LFB	Parathion Methyl	0.313	LCS	P	0 - 30
LFB	Pendimethalin	16.2	LCS	P	0 - 30
LFB	Phorate	1.42	LCS	P	0 - 30
LFB	Prodiamine	6.53	LCS	P	0 - 30
LFB	Prometon	4.19	LCS	P	0 - 30
LFB	Prometryn	4.26	LCS	P	0 - 30
LFB	Pronamide	8.52	LCS	P	0 - 30
LFB	Propiconazole	1.31	LCS	P	0 - 30
LFB	Simazine	2.80	LCS	P	0 - 30
LFB	Sulfentrazone	11.4	LCS	P	0 - 30
LFB	Tebuconazole	8.79	LCS	P	0 - 30
LFB	Terbufos	3.47	LCS	P	0 - 30
LFB	Terbutylazine	0.719	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P384679

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2183192	Aldrin	3.01	Spike	P	0 - 30
2183192	Alpha-BHC	1.62	Spike	P	0 - 30
2183192	Alpha-Chlordane	0.0184	Spike	P	0 - 30
2183192	Beta-BHC	3.40	Spike	P	0 - 30
2183192	Beta-Cyfluthrin	5.41	Spike	P	0 - 30
2183192	Bifenthrin	2.21	Spike	P	0 - 30
2183192	Chlorothalonil	27.0	Spike	P	0 - 30
2183192	Cis-Nonachlor	0.0996	Spike	P	0 - 30
2183192	Cypermethrin	1.69	Spike	P	0 - 30
2183192	Dacthal	0.552	Spike	P	0 - 30
2183192	DDD-p,p'	1.21	Spike	P	0 - 30
2183192	DDE-p,p'	0.696	Spike	P	0 - 30
2183192	DDT-p,p'	0.286	Spike	P	0 - 30
2183192	Delta-BHC	4.26	Spike	P	0 - 30
2183192	Dicofol	5.02	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P384679

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2183192	Dieldrin	1.94	Spike	P	0 - 30
2183192	Endosulfan I	1.89	Spike	P	0 - 30
2183192	Endosulfan II	4.34	Spike	P	0 - 30
2183192	Endosulfan Sulfate	2.46	Spike	P	0 - 30
2183192	Endrin	3.27	Spike	P	0 - 30
2183192	Endrin Aldehyde	2.80	Spike	P	0 - 30
2183192	Endrin Ketone	0.445	Spike	P	0 - 30
2183192	Ethalfuralin	2.16	Spike	P	0 - 30
2183192	Gamma-BHC	1.84	Spike	P	0 - 30
2183192	Gamma-Chlordane	1.38	Spike	P	0 - 30
2183192	Heptachlor	3.25	Spike	P	0 - 30
2183192	Heptachlor Epoxide	0.0225	Spike	P	0 - 30
2183192	Hexachlorobenzene	2.05	Spike	P	0 - 30
2183192	Lambda-Cyhalothrin	3.64	Spike	P	0 - 30
2183192	Methoxychlor	2.05	Spike	P	0 - 30
2183192	Mirex	1.06	Spike	P	0 - 30
2183192	Permethrin	3.20	Spike	P	0 - 30
2183192	Phenothrin	3.02	Spike	P	0 - 30
2183192	Prallethrin	2.01	Spike	P	0 - 30
2183192	Trans-Nonachlor	0.529	Spike	P	0 - 30
2183192	Trifluralin	0.0860	Spike	P	0 - 30
LFB	Aldrin	2.61	LCS	P	0 - 30
LFB	Alpha-BHC	6.89	LCS	P	0 - 30
LFB	Alpha-Chlordane	0.460	LCS	P	0 - 30
LFB	Beta-BHC	2.65	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	2.74	LCS	P	0 - 30
LFB	Bifenthrin	1.10	LCS	P	0 - 30
LFB	Chlorothalonil	12.3	LCS	P	0 - 30
LFB	Cis-Nonachlor	1.32	LCS	P	0 - 30
LFB	Cypermethrin	4.39	LCS	P	0 - 30
LFB	Dacthal	0.404	LCS	P	0 - 30
LFB	DDD-p,p'	2.15	LCS	P	0 - 30
LFB	DDE-p,p'	1.90	LCS	P	0 - 30
LFB	DDT-p,p'	0.0102	LCS	P	0 - 30
LFB	Delta-BHC	2.38	LCS	P	0 - 30
LFB	Dicofol	5.04	LCS	P	0 - 30
LFB	Dieldrin	1.54	LCS	P	0 - 30
LFB	Endosulfan I	0.696	LCS	P	0 - 30
LFB	Endosulfan II	3.05	LCS	P	0 - 30
LFB	Endosulfan Sulfate	0.398	LCS	P	0 - 30
LFB	Endrin	1.16	LCS	P	0 - 30
LFB	Endrin Aldehyde	0.238	LCS	P	0 - 30
LFB	Endrin Ketone	58.9	LCS	F	0 - 30
LFB	Ethalfuralin	0.658	LCS	P	0 - 30
LFB	Gamma-BHC	0.668	LCS	P	0 - 30
LFB	Gamma-Chlordane	1.12	LCS	P	0 - 30
LFB	Heptachlor	2.70	LCS	P	0 - 30
LFB	Heptachlor Epoxide	0.551	LCS	P	0 - 30
LFB	Hexachlorobenzene	0.508	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	1.97	LCS	P	0 - 30
LFB	Methoxychlor	0.816	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P384679

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Mirex	1.08	LCS	P	0 - 30
LFB	Permethrin	1.65	LCS	P	0 - 30
LFB	Phenothrin	1.57	LCS	P	0 - 30
LFB	Prallethrin	11.8	LCS	P	0 - 30
LFB	Trans-Nonachlor	1.13	LCS	P	0 - 30
LFB	Trifluralin	1.13	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P384679

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2183537	Chlordane	1.12	Spike	P	0 - 30
2183537	Toxaphene	5.77	Spike	P	0 - 30
LFB	Chlordane	4.04	LCS	P	0 - 30
LFB	Toxaphene	1.77	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P384657

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182983	Acesulfame K	4.11	Spike	P	0 - 30
2182983	AMPA	3.61	Spike	P	0 - 30
2182983	Endothall	3.40	Spike	P	0 - 30
2182983	Glufosinate	1.31	Spike	P	0 - 30
2182983	Glyphosate	6.45	Spike	P	0 - 30
2182983	Sucralose	5.88	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P384706

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182702	3-Hydroxycarbofuran	0.394	Spike	P	0 - 30
2182702	Aldicarb	19.8	Spike	P	0 - 30
2182702	Aldicarb Sulfone	5.66	Spike	P	0 - 30
2182702	Aldicarb Sulfoxide	3.06	Spike	P	0 - 30
2182702	Carbaryl	10.8	Spike	P	0 - 30
2182702	Carbofuran	10.2	Spike	P	0 - 30
2182702	Methiocarb	10.6	Spike	P	0 - 30
2182702	Methomyl	1.46	Spike	P	0 - 30
2182702	Oxamyl	2.31	Spike	P	0 - 30
2182702	Propoxur	7.08	Spike	P	0 - 30
2182738	2,4-D	13.5	Spike	P	0 - 30
2182738	Acetaminophen	11.1	Spike	P	0 - 30
2182738	Acetamiprid	0.416	Spike	P	0 - 30
2182738	Afidopyrophen	1.16	Spike	P	0 - 30
2182738	Bentazon	3.25	Spike	P	0 - 30
2182738	Benzovindiflupyr	8.44	Spike	P	0 - 30
2182738	Carbamazepine	3.16	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P384706

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182738	Clothianidin	6.53	Spike	P	0 - 30
2182738	Dinotefuran	5.16	Spike	P	0 - 30
2182738	Diuron	8.30	Spike	P	0 - 30
2182738	Fenuron	4.36	Spike	P	0 - 30
2182738	Fluridone	5.24	Spike	P	0 - 30
2182738	Hydrocodone	8.22	Spike	P	0 - 30
2182738	Ibuprofen	12.8	Spike	P	0 - 30
2182738	Imazapyr	0.477	Spike	P	0 - 30
2182738	Imidacloprid	5.22	Spike	P	0 - 30
2182738	Linuron	5.26	Spike	P	0 - 30
2182738	Mandestrobin	1.66	Spike	P	0 - 30
2182738	MCPP	4.93	Spike	P	0 - 30
2182738	Naproxen	5.86	Spike	P	0 - 30
2182738	Primidone	6.87	Spike	P	0 - 30
2182738	Pyraclostrobin	3.08	Spike	P	0 - 30
2182738	Thiamethoxam	6.05	Spike	P	0 - 30
2182738	Tolfenpyrad	0.181	Spike	P	0 - 30
2182738	Triclopyr	14.1	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P384846

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182995	Total Alkalinity	0.817	Sample	P	0 - 8.1

Reference Method: SM 4500 F-C-2011
Batch ID: P384852

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182995	Fluoride	0.0	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011
Batch ID: P384780

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182968	Organic Carbon	0.0272	Spike	P	0 - 20

Reference Method: SM 5310 B-2011
Batch ID: P384782

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2181853	Organic Carbon	0.551	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2183043
Field Sample ID: G5SW0134

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	31.7	P	30 - 160

Lab Sample ID: 2183044
Field Sample ID: G5SW0134

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	88.7	P	30 - 160
EPA 8321B	Acetaminophen-d4	47.9	P	30 - 160
EPA 8321B	Carbamazepine-d10	40.0	P	30 - 160
EPA 8321B	Diuron-d6	36.5	P	30 - 160
EPA 8321B	Endothall-d6	668	F	30 - 160
EPA 8321B	Endothall-d6	668	F	30 - 160
EPA 8321B	Glyphosate 13C 15N	54.8	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	54.8	P	30 - 160
EPA 8321B	Ibuprofen-d3	60.2	P	30 - 160
EPA 8321B	Primidone-d5	61.8	P	30 - 160
EPA 8321B	Sucralose-d6	102	P	30 - 160
EPA 8321B	Sucralose-d6	102	P	30 - 160

Lab Sample ID: 2183045
Field Sample ID: G1SW0099

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	140	P	30 - 160
EPA 8321B	Acetaminophen-d4	103	P	30 - 160
EPA 8321B	Carbamazepine-d10	74.3	P	30 - 160
EPA 8321B	Diuron-d6	72.1	P	30 - 160
EPA 8321B	Endothall-d6	319	F	30 - 160
EPA 8321B	Endothall-d6	319	F	30 - 160
EPA 8321B	Glyphosate 13C 15N	39.7	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	39.7	P	30 - 160
EPA 8321B	Ibuprofen-d3	89.5	P	30 - 160
EPA 8321B	Primidone-d5	103	P	30 - 160
EPA 8321B	Sucralose-d6	80.4	P	30 - 160
EPA 8321B	Sucralose-d6	80.4	P	30 - 160

Lab Sample ID: 2183049
Field Sample ID: G5SW0134

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	89.9	P	44 - 112
EPA 8270E	Tetrachloro-m-xylene	65.7	P	34 - 106
EPA 8276	Decachlorobiphenyl	66.5	P	26 - 97.0
EPA 8276	PCNB	112	P	38 - 141

Lab Sample ID: 2183050
Field Sample ID: G5SW0134

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	97.0	P	72 - 135
EPA 8270E	Terbufos-d10	91.4	P	57 - 134

Quality Assurance Report Calibration Verification

Reference Method: EPA 8276

Run ID: A100011

Included Lab Sample IDs: 2183049

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	99.1		P	80 - 120
Toxaphene	121*		F	80 - 120

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A100051

Included Lab Sample IDs: 2183052, 2183053

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	104	104	P/P	90 - 110
Calcium	104	104	P/P	90 - 110
Chromium	102	102	P/P	90 - 110
Iron	101	102	P/P	90 - 110
Manganese	103	103	P/P	90 - 110
Potassium	102	102	P/P	90 - 110
Potassium	98.9	102	P/P	90 - 110
Sodium	101	101	P/P	90 - 110
Sodium	98.0	101	P/P	90 - 110
Zinc	105	107	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A100105

Included Lab Sample IDs: 2183049

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	99.6		P	80 - 120
Alpha-BHC	97.1		P	80 - 120
Alpha-Chlordane	99.1		P	80 - 120
Beta-BHC	97.0		P	80 - 120
Beta-Cyfluthrin	90.0		P	80 - 120
Bifenthrin	92.1		P	80 - 120
Chlorothalonil	103		P	80 - 120
Cis-Nonachlor	97.7		P	80 - 120
Cypermethrin	91.7		P	80 - 120
Dacthal	102		P	80 - 120
DDD-p,p'	102		P	80 - 120
DDE-p,p'	99.9		P	80 - 120
DDT-p,p'	104		P	80 - 120
Delta-BHC	89.8		P	80 - 120
Dicofol	91.8		P	80 - 120
Dieldrin	102		P	80 - 120
Endosulfan I	101		P	80 - 120
Endosulfan II	96.7		P	80 - 120
Endosulfan Sulfate	87.4		P	80 - 120
Endrin	98.8		P	80 - 120
Endrin Aldehyde	99.7		P	80 - 120
Endrin Ketone	91.4		P	80 - 120
Ethalfuralin	92.8		P	80 - 120
Gamma-BHC	95.1		P	80 - 120
Gamma-Chlordane	98.3		P	80 - 120
Heptachlor	96.8		P	80 - 120
Heptachlor Epoxide	101		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A100105

Included Lab Sample IDs: 2183049

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Hexachlorobenzene	100		P	80 - 120
Lambda-Cyhalothrin	90.6		P	80 - 120
Methoxychlor	103		P	80 - 120
Mirex	92.2		P	80 - 120
Permethrin	92.9		P	80 - 120
Phenothrin	90.0		P	80 - 120
Prallethrin	88.0		P	80 - 120
Trans-Nonachlor	98.9		P	80 - 120
Trifluralin	95.3		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A100111

Included Lab Sample IDs: 2183052, 2183053

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	100	101	P/P	90 - 110
Aluminum	98.7	100	P/P	90 - 110
Antimony	98.6	101	P/P	90 - 110
Arsenic	99.7	98.9	P/P	90 - 110
Arsenic	99.9	99.7	P/P	90 - 110
Cadmium	100	99.6	P/P	90 - 110
Cadmium	99.3	100	P/P	90 - 110
Copper	97.9	98.2	P/P	90 - 110
Copper	99.3	97.9	P/P	90 - 110
Lead	101	101	P/P	90 - 110
Lead	101	102	P/P	90 - 110
Nickel	97.6	97.7	P/P	90 - 110
Nickel	97.7	96.6	P/P	90 - 110
Selenium	101	101	P/P	90 - 110
Selenium	102	101	P/P	90 - 110
Silver	102	103	P/P	90 - 110
Silver	103	103	P/P	90 - 110
Thallium	95.1	95.3	P/P	90 - 110
Thallium	95.1	95.1	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A100141

Included Lab Sample IDs: 2183044, 2183045

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	97.9	94.2	P/P	60 - 160

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A100157

Included Lab Sample IDs: 2183052

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Antimony	99.5	100	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A100190

Included Lab Sample IDs: 2183050

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	99.5		P	80 - 120
Alachlor	102		P	80 - 120
Ametryn	103		P	80 - 120
Atrazine Desethyl	109		P	80 - 120
Azinphos Methyl	98.3		P	80 - 120
Bromacil	99.1		P	80 - 120
Butylate	104		P	80 - 120
Carbophenothion	101		P	80 - 120
Chlorpyrifos Ethyl	99.3		P	80 - 120
Chlorpyrifos Methyl	101		P	80 - 120
Cyanazine	103		P	80 - 120
Demeton	95.8		P	80 - 120
Diazinon	101		P	80 - 120
Dimethenamid	101		P	80 - 120
Disulfoton	97.1		P	80 - 120
Dithiopyr	101		P	80 - 120
EPTC	101		P	80 - 120
Ethion	98.0		P	80 - 120
Ethoprop	101		P	80 - 120
Fenamiphos	95.7		P	80 - 120
Fipronil	97.4		P	80 - 120
Fipronil Desulfinyl	101		P	80 - 120
Fipronil Sulfide	94.6		P	80 - 120
Fipronil Sulfone	97.0		P	80 - 120
Flumioxazin	93.2		P	80 - 120
Fonofos	100		P	80 - 120
Hexazinone	103		P	80 - 120
Imazalil	114		P	80 - 120
Malathion	97.1		P	80 - 120
Metalaxyl	101		P	80 - 120
Metolachlor	98.0		P	80 - 120
Metribuzin	88.3		P	80 - 120
Mevinphos	99.0		P	80 - 120
Molinate	102		P	80 - 120
Naled	109		P	80 - 120
Norflurazon	97.7		P	80 - 120
Oxadiazon	104		P	80 - 120
Parathion Ethyl	97.2		P	80 - 120
Parathion Methyl	97.2		P	80 - 120
Pendimethalin	96.2		P	80 - 120
Phorate	94.6		P	80 - 120
Prodiamine	86.4		P	80 - 120
Prometon	98.2		P	80 - 120
Prometryn	100		P	80 - 120
Pronamide	101		P	80 - 120
Propiconazole	94.4		P	80 - 120
Simazine	98.5		P	80 - 120
Sulfentrazone	96.3		P	80 - 120
Tebuconazole	99.6		P	80 - 120
Terbufos	98.3		P	80 - 120
Terbutylazine	100		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A100217
Included Lab Sample IDs: 2183050

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Atrazine	97.7		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A100250
Included Lab Sample IDs: 2183023, 2183026, 2183029

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bromide	107	94.6	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A99896
Included Lab Sample IDs: 2183023, 2183026, 2183029

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A99898
Included Lab Sample IDs: 2183025, 2183028, 2183031

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	95.3	93.7	P/P	90 - 110
O-Phosphate-P	98.5	96.3	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A99937
Included Lab Sample IDs: 2183044, 2183045

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	78.1	79.4	P/P	60 - 160
Glufosinate	85.3	102	P/P	60 - 160
Glyphosate	94.5	95.1	P/P	60 - 160

Reference Method: SM 5310 B-2011
Run ID: A99938
Included Lab Sample IDs: 2183024, 2183027, 2183030

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.0	98.9	P/P	90 - 110
Organic Carbon	98.6	98.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A99951
Included Lab Sample IDs: 2183024, 2183027, 2183030

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	100	98.5	P/P	90 - 110
Kjeldahl Nitrogen	98.5	96.7	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A99954

Included Lab Sample IDs: 2183024, 2183027, 2183030

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

Reference Method: SM 2320 B-2011

Run ID: A99965

Included Lab Sample IDs: 2183023, 2183026, 2183029

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.3	99.5	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A99965

Included Lab Sample IDs: 2183023, 2183026, 2183029

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A99968

Included Lab Sample IDs: 2183024, 2183027, 2183030

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A99981

Included Lab Sample IDs: 2183044, 2183045

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	117	124	P/P	50 - 150
3-Hydroxycarbofuran	114	112	P/P	60 - 150
Acetaminophen	111	113	P/P	60 - 160
Acetamiprid	119	117	P/P	50 - 150
Afidopyropen	106	108	P/P	50 - 150
Aldicarb	109	108	P/P	60 - 150
Aldicarb Sulfone	111	103	P/P	50 - 150
Aldicarb Sulfoxide	108	101	P/P	50 - 150
Bentazon	101	90.8	P/P	50 - 160
Benzovindiflupyr	103	111	P/P	50 - 150
Carbamazepine	112	112	P/P	60 - 150
Carbaryl	113	120	P/P	60 - 150
Carbofuran	121	120	P/P	50 - 150
Clothianidin	105	107	P/P	60 - 150
Dinotefuran	106	105	P/P	50 - 150
Diuron	118	110	P/P	60 - 160
Fenuron	111	117	P/P	60 - 150
Fluridone	110	115	P/P	60 - 160
Fluridone	115	110	P/P	60 - 160
Hydrocodone	114	117	P/P	60 - 150
Ibuprofen	74.6	75.9	P/P	50 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A99981

Included Lab Sample IDs: 2183044, 2183045

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Imazapyr	130	124	P/P	50 - 150
Imidacloprid	103	104	P/P	60 - 150
Linuron	107	115	P/P	60 - 150
Mandestrobin	118	120	P/P	50 - 150
MCPP	112	98.5	P/P	50 - 150
Methiocarb	103	110	P/P	50 - 150
Methomyl	110	108	P/P	50 - 150
Naproxen	125	77.5	P/P	50 - 160
Oxamyl	111	104	P/P	50 - 150
Primidone	93.7	106	P/P	60 - 150
Propoxur	115	112	P/P	50 - 150
Pyraclostrobin	117	106	P/P	60 - 150
Thiamethoxam	97.5	119	P/P	50 - 150
Tolfenpyrad	110	103	P/P	60 - 150
Triclopyr	112	102	P/P	50 - 150

Reference Method: EPA 8321B

Run ID: A99984

Included Lab Sample IDs: 2183044, 2183045

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	89.8	73.9	P/P	60 - 160
Endothall	98.3	100	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A99998

Included Lab Sample IDs: 2183024, 2183027, 2183030

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.1	97.6	P/P	90 - 110

* Pass/Fail determinations are made for each bracketing calibration verification check.

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity							0.959	
EPA 200.7 Rev. 4.4	Barium	103		98.6	101	98.5			1.93
	Calcium	104							1.13
	Chromium	101		98.2	99.3	97.8			1.10
	Iron	106		101	101	107			0.328
	Manganese	102		98.5	101	98.3			1.89
	Potassium	101							0.849
	Sodium	99.1							0.458
	Zinc	106		104	105	105			1.80
EPA 200.8 Rev. 5.4	Aluminum	100		101	101	103			0.0111
	Antimony	102		104	105	105			1.10
	Arsenic	104		111	110	110			0.301
	Cadmium	104		99.2	103	101			3.51
	Copper	103		107	108	109			1.58
	Lead	106		111	110	112			0.772
	Nickel	103		101	103	102			2.00
	Selenium	101		101	103	104			2.24
	Silver	108		102	104	102			2.01
	Thallium	105		109	109	110			0.0250
EPA 300.0 Rev. 2.1	Bromide	96.2		93.3	92.9	92.9			0.308
EPA 350.1 Rev. 2.0	Ammonia-N	102		96.6	96.9				0.310
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	100		95.2	93.6				1.32
EPA 353.2 Rev. 2.0	NO2NO3-N	102		100	100				0.499
EPA 365.1 Rev. 2.0	Total-P	106		105	103				1.59
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.2		97.2	97.5				0.243
EPA 8270E	Acetochlor	90.0	90.5	93.5	96.4		0.549		3.05
	Alachlor	91.8	91.5	93.6	98.6		0.331		5.15
	Aldrin	40.7	41.8	52.8	51.2		2.61		3.01
	Alpha-BHC	85.4	91.4	93.9	95.4		6.89		1.62
	Alpha-Chlordane	91.2	90.8	88.1	88.1		0.460		0.0184
	Ametryn	105	90.6				14.5		6.72
	Atrazine	96.1	98.1				2.05		0.746
	Atrazine Desethyl	75.0	75.9				1.18		2.03
	Azinphos Methyl	138	127	133	124		8.10		7.16
	Beta-BHC	109	106	112	116		2.65		3.40
	Beta-Cyfluthrin	96.3	98.9	92.8	87.9		2.74		5.41
	Bifenthrin	89.4	88.5	77.2	75.6		1.10		2.21
	Bromacil	88.1	84.2	91.8	86.3		4.52		6.17
	Butylate	63.8	62.6	51.2	57.6		1.98		11.7
	Carbophenothion	98.0	103	83.6	85.5		4.94		2.17
	Chlorothalonil	51.3	58.1	38.4	29.2		12.3		27.0
	Chlorpyrifos Ethyl	102	96.8	97.1	104		5.39		6.81
	Chlorpyrifos Methyl	99.3	96.1	92.0	90.6		3.21		1.53
	Cis-Nonachlor	91.8	90.6	87.9	87.8		1.32		0.0996
	Cyanazine	103	106	95.7	106		3.18		10.5
	Cypermethrin	94.5	98.7	91.8	90.3		4.39		1.69
	Dacthal	95.4	95.8	98.1	98.7		0.404		0.552
	DDD-p,p'	98.3	96.2	94.8	95.9		2.15		1.21
	DDE-p,p'	86.4	84.8	77.8	78.3		1.90		0.696
	DDT-p,p'	85.0	85.0	79.8	79.5		0.0102		0.286
	Delta-BHC	108	105	147	141		2.38		4.26
	Demeton	86.9	86.8	95.8	96.5		0.147		0.659
	Diazinon	92.9	94.5	98.8	104		1.77		5.24
	Dicofol	114	120	104	99.0		5.04		5.02

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Dieldrin	96.8	95.3	96.0	97.8	1.54	1.94
	Dimethenamid	90.0	91.2	98.6	102	1.37	3.73
	Disulfoton	86.2	87.2	89.9	89.0	1.22	1.05
	Dithiopyr	92.3	90.8	93.8	97.5	1.66	3.61
	Endosulfan I	94.1	94.8	94.7	96.5	0.696	1.89
	Endosulfan II	110	107	113	118	3.05	4.34
	Endosulfan Sulfate	103	103	113	110	0.398	2.46
	Endrin	100	102	99.2	102	1.16	3.27
	Endrin Aldehyde	120	120	109	113	0.238	2.80
	Endrin Ketone	157	85.5	103	103	58.9	0.445
	EPTC	58.8	61.1	60.5	50.4	3.81	18.1
	Ethalfuralin	78.0	77.4	75.0	76.6	0.658	2.16
	Ethion	106	102	95.8	89.0	3.26	7.34
	Ethoprop	90.3	90.4	91.9	90.7	0.177	1.38
	Fenamiphos	94.6	100	108	75.9	5.95	35.0
	Fipronil	92.0	95.7	99.9	107	3.95	6.70
	Fipronil Desulfinyl	96.9	100	97.4	106	3.66	6.62
	Fipronil Sulfide	92.1	89.0	83.2	89.2	3.43	5.44
	Fipronil Sulfone	93.3	93.5	86.8	90.2	0.202	2.18
	Flumioxazin	134	131	185	198	2.32	6.60
	Fonofos	90.5	88.6	85.8	88.2	2.11	2.77
	Gamma-BHC	102	101	110	112	0.668	1.84
	Gamma-Chlordane	87.1	86.1	81.8	82.9	1.12	1.38
	Heptachlor	75.5	77.5	68.0	65.9	2.70	3.25
	Heptachlor Epoxide	92.7	93.2	93.4	93.4	0.551	0.0225
	Hexachlorobenzene	70.2	70.6	61.0	62.3	0.508	2.05
	Hexazinone	90.0	94.1	106	104	4.48	2.16
	Imazalil	105	93.9	66.1	74.5	10.8	12.1
	Lambda-Cyhalothrin	102	104	96.7	93.2	1.97	3.64
	Malathion	111	107	106	102	3.50	4.17
	Metalaxyl	89.8	94.6	90.0	94.6	5.23	4.98
	Methoxychlor	107	106	96.7	94.8	0.816	2.05
	Metolachlor	88.1	87.2	88.0	90.4	1.01	2.68
	Metribuzin	101	104	104	111	3.30	6.00
	Mevinphos	85.4	87.3	90.2	88.3	2.24	2.14
	Mirex	58.2	58.9	60.4	59.8	1.08	1.06
	Molinate	68.8	74.3	74.4	71.4	7.66	4.11
	Naled	69.3	74.6	80.4	84.7	7.30	5.23
	Norflurazon	89.7	96.5	87.1	92.0	7.23	5.47
	Oxadiazon	88.6	84.5	76.6	79.1	4.82	3.08
	Parathion Ethyl	92.0	86.3	94.7	92.2	6.34	2.67
	Parathion Methyl	100	101	105	104	0.313	1.47
	Pendimethalin	112	95.2	120	118	16.2	1.76
	Permethrin	79.5	80.8	73.2	70.9	1.65	3.20
	Phenothrin	46.3	47.0	55.6	54.0	1.57	3.02
	Phorate	92.3	90.9	84.0	86.0	1.42	2.36
	Prallethrin	72.8	64.7	76.6	78.2	11.8	2.01
	Prodiamine	79.1	74.1	110	112	6.53	2.61
	Prometon	82.5	86.0	86.6	91.6	4.19	5.62
	Prometryn	86.8	90.6	91.7	95.5	4.26	4.13
	Pronamide	94.2	103	111	121	8.52	8.99
	Propiconazole	84.0	85.2			1.31	8.26
	Simazine	96.3	99.0			2.80	5.70
	Sulfentrazone	80.3	90.1	85.7	90.7	11.4	4.89

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Tebuconazole	47.6	52.0	50.7	49.6	8.79	1.53
	Terbufos	99.5	96.1	97.7	96.9	3.47	0.836
	Terbuthylazine	93.3	94.0	106	100	0.719	5.44
	Trans-Nonachlor	87.5	86.5	82.7	83.1	1.13	0.529
	Trifluralin	80.5	79.6	75.8	75.7	1.13	0.0860
EPA 8276	Chlordane	88.0	91.6	92.9	91.9	4.04	1.12
	Toxaphene	110	108	106	112	1.77	5.77
EPA 8321B	2,4-D	104		117	102		13.5
	3-Hydroxycarbofuran	75.3		56.6	56.8		0.394
	Acesulfame K	90.8		99.2	95.0		4.11
	Acetaminophen	62.1		69.7	77.9		11.1
	Acetamiprid	76.1		66.7	66.9		0.416
	Afidopyropen	59.3		68.8	68.0		1.16
	Aldicarb	78.1		59.7	49.0		19.8
	Aldicarb Sulfone	84.7		69.6	65.8		5.66
	Aldicarb Sulfoxide	81.4		36.2	35.1		3.06
	AMPA	83.0		86.0	83.0		3.61
	Bentazon	51.4		44.0	41.1		3.25
	Benzovindiflupyr	61.7		70.8	65.0		8.44
	Carbamazepine	61.6		52.3	53.9		3.16
	Carbaryl	49.1		40.5	36.3		10.8
	Carbofuran	53.9		45.5	41.1		10.2
	Clothianidin	77.9		61.9	66.0		6.53
	Dinotefuran	85.6		73.1	76.9		5.16
	Diuron	51.4		45.6	49.5		8.30
	Endothall	77.4		85.5	88.4		3.40
	Fenuron	88.8		70.2	73.3		4.36
	Fluridone	79.7		89.5	82.3		5.24
	Glufosinate	99.5		85.1	84.0		1.31
	Glyphosate	92.6		70.4	65.3		6.45
	Hydrocodone	73.7		57.4	62.3		8.22
	Ibuprofen	66.1		71.6	63.0		12.8
	Imazapyr	95.9		98.9	99.6		0.477
	Imidacloprid	93.7		114	120		5.22
	Linuron	57.5		61.9	58.7		5.26
	Mandestrobin	66.9		74.5	73.2		1.66
	MCPP	115		121	115		4.93
	Methiocarb	49.5		44.6	40.1		10.6
	Methomyl	84.2		68.1	67.1		1.46
	Naproxen	71.3		68.9	73.0		5.86
	Oxamyl	83.5		62.4	61.0		2.31
	Primidone	76.7		80.6	75.3		6.87
	Propoxur	55.5		42.8	39.9		7.08
	Pyraclostrobin	68.6		77.3	75.0		3.08
	Sucralose	93.1		106	98.9		5.88
	Thiamethoxam	89.4		79.7	84.7		6.05
	Tolfenpyrad	56.2		47.5	47.4		0.181
	Triclopyr	92.0		103	89.1		14.1
SM 2320 B-2011	Total Alkalinity	98.8				0.817	
SM 4500 F-C-2011	Fluoride	98.5		99.7	99.7		0.0
SM 5310 B-2011	Organic Carbon	100		99.7	99.8		0.0272
	Organic Carbon	102		101	101		0.551

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2183023, 2183026, 2183029
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2183052, 2183053
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2183052, 2183053
EPA 300.0 Rev. 2.1	Bromide in aqueous matrices	2183023, 2183026, 2183029
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2183024, 2183027, 2183030
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2183024, 2183027, 2183030
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2183024, 2183027, 2183030
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2183024, 2183027, 2183030
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2183025, 2183028, 2183031
EPA 8270E	Organochlorine pesticides in water matrices by GC/MS-SIM	2183049
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2183050
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2183049
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2183043
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2183044, 2183045
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2183044, 2183045
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2183023, 2183026, 2183029
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2183023, 2183026, 2183029
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2183023, 2183026, 2183029
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2183024, 2183027, 2183030

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	07/15/2020			07/15/2020 15:03	Yen Ta	2183023, 2183026, 2183029
EPA 200.7 Rev. 4.4	07/15/2020	07/22/2020 16:25	Elliott D. Healy	07/23/2020 20:42	Betina Topolski	2183052
	07/15/2020	07/22/2020 16:25	Elliott D. Healy	07/23/2020 20:50	Betina Topolski	2183052
	07/15/2020	07/22/2020 16:25	Elliott D. Healy	07/23/2020 20:58	Betina Topolski	2183053
	07/15/2020	07/22/2020 16:25	Elliott D. Healy	07/23/2020 21:33	Betina Topolski	2183053
EPA 200.8 Rev. 5.4	07/15/2020	07/22/2020 16:25	Elliott D. Healy	07/27/2020 20:20	Alexander Thompson	2183052
	07/15/2020	07/22/2020 16:25	Elliott D. Healy	07/27/2020 20:51	Alexander Thompson	2183053
	07/15/2020	07/22/2020 16:25	Elliott D. Healy	07/29/2020 15:06	Alexander Thompson	2183052
EPA 300.0 Rev. 2.1	07/15/2020			07/28/2020 18:53	Julia Storbeck	2183023
	07/15/2020			07/28/2020 19:11	Julia Storbeck	2183026
	07/15/2020			07/28/2020 19:30	Julia Storbeck	2183029
EPA 350.1 Rev. 2.0	07/15/2020			07/18/2020 12:05	Ping Hua	2183027
	07/15/2020			07/18/2020 12:22	Ping Hua	2183024
	07/15/2020			07/18/2020 12:23	Ping Hua	2183030
EPA 351.2 Rev. 2.0	07/15/2020	07/16/2020 09:45	Sima Feizi	07/17/2020 15:18	Jhamieka S. Greenwood	2183024
	07/15/2020	07/16/2020 09:45	Sima Feizi	07/17/2020 15:23	Jhamieka S. Greenwood	2183027
	07/15/2020	07/16/2020 09:45	Sima Feizi	07/17/2020 15:25	Jhamieka S. Greenwood	2183030
EPA 353.2 Rev. 2.0	07/15/2020			07/20/2020 09:25	Beverly Y. Sanders	2183024
	07/15/2020			07/20/2020 09:26	Beverly Y. Sanders	2183027
	07/15/2020			07/20/2020 09:27	Beverly Y. Sanders	2183030
EPA 365.1 Rev. 2.0	07/15/2020	07/20/2020 13:21	Yen Ta	07/21/2020 10:26	Lipi Saha	2183024
	07/15/2020	07/20/2020 13:21	Yen Ta	07/21/2020 10:27	Lipi Saha	2183027
	07/15/2020	07/20/2020 13:21	Yen Ta	07/21/2020 10:28	Lipi Saha	2183030
EPA 365.1 Rev. 2.0 dissolved	07/15/2020			07/15/2020 15:18	Jhamieka S. Greenwood	2183025
	07/15/2020			07/15/2020 15:23	Jhamieka S. Greenwood	2183031
	07/15/2020			07/15/2020 16:48	Jhamieka S. Greenwood	2183028
EPA 8270E	07/15/2020	07/17/2020 08:00	Fe-Val Siddell	07/21/2020 16:11	Vandana T. Nagar	2183050
	07/15/2020	07/17/2020 08:00	Fe-Val Siddell	07/31/2020 17:53	Vandana T. Nagar	2183050
	07/15/2020	07/17/2020 08:30	Rasheda Ghaffari	07/23/2020 18:43	Michael Poppell	2183049
EPA 8276	07/15/2020	07/17/2020 08:30	Rasheda Ghaffari	07/22/2020 04:23	Arthur Maknenko	2183049
EPA 8321B	07/15/2020	07/15/2020 15:30	Rebecca Ware	07/15/2020 22:15	Rebecca Ware	2183044
	07/15/2020	07/15/2020 15:30	Rebecca Ware	07/15/2020 22:26	Rebecca Ware	2183045
	07/15/2020	07/15/2020 15:30	Rebecca Ware	07/20/2020 13:40	Rebecca Ware	2183044
	07/15/2020	07/15/2020 15:30	Rebecca Ware	07/20/2020 13:53	Rebecca Ware	2183045
	07/15/2020	07/15/2020 15:30	Rebecca Ware	07/28/2020 21:59	Mohammad Ghaffari	2183044
	07/15/2020	07/15/2020 15:30	Rebecca Ware	07/28/2020 22:10	Mohammad Ghaffari	2183045
	07/15/2020	07/20/2020 08:45	Hoor Shaik	07/20/2020 21:39	Juyoung Kim	2183043
	07/15/2020	07/20/2020 08:45	Hoor Shaik	07/21/2020 09:13	Juyoung Kim	2183044
	07/15/2020	07/20/2020 08:45	Hoor Shaik	07/21/2020 09:47	Juyoung Kim	2183045
	07/15/2020	07/20/2020 08:45	Hoor Shaik	07/21/2020 13:50	Juyoung Kim	2183044

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2320 B-2011	07/15/2020			07/17/2020 18:33	Samantha Davila	2183023
	07/15/2020			07/17/2020 19:12	Samantha Davila	2183026
	07/15/2020			07/17/2020 19:25	Samantha Davila	2183029
SM 2540 D-2011	07/15/2020			07/20/2020 13:22	Yijie Li	2183023, 2183026, 2183029
SM 4500 F-C-2011	07/15/2020			07/17/2020 16:38	Samantha Davila	2183023
	07/15/2020			07/17/2020 17:33	Samantha Davila	2183026
	07/15/2020			07/17/2020 17:38	Samantha Davila	2183029
SM 5310 B-2011	07/15/2020			07/16/2020 22:12	David Boose	2183024
	07/15/2020			07/17/2020 08:41	David Boose	2183027
	07/15/2020			07/17/2020 08:55	David Boose	2183030