

Chemical Analysis Report

CEN-DIST-2020-04-02-01

Florida Department of Environmental Protection
Central Laboratory
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DOH Accreditation E31780

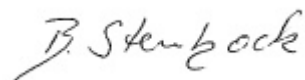
Event Description: **Ann / Marshall / Ellen / Asher / Park / Gem / Lotus / Florida /
Adelaide / Searc**
Request ID: **RQ-2020-03-23-11**
Customer: **CEN-DIST**
Project ID: **SMP**

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Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator

Date Certified: 23-APR-2020 13:52



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: Lake Searcy @ Center

Collection Date/Time: 04/01/2020 10:15

Field ID: G2CE0137

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2169310	EPA 300.0 Rev. 2.1	Chloride	25		mg Cl/L	P381994	
		Sulfate	3.4		mg SO4/L	P382000	
	SM 2320 B-2011	Total Alkalinity	29		mg CaCO3/L	P381988	
	SM 2540 C-2011	TDS	111		mg/L	P382033	
	SM 2540 D-2011	TSS	8	I	mg/L	P382027	
	SM 4500 F-C-2011	Fluoride	0.085	I	mg F/L	P381924	
2169312	EPA 350.1 Rev. 2.0	Ammonia-N	0.14		mg N/L	P381824	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.7		mg N/L	P381773	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.006	I	mg N/L	P381731	
	EPA 365.1 Rev. 2.0	Total-P	0.090		mg P/L	P381803	
	SM 5310 B-2011	Organic Carbon	13		mg C/L	P381850	

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: Lake Ellen @ Center

Collection Date/Time: 04/01/2020 10:55

Field ID: G2CE0060

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2169308	EPA 300.0 Rev. 2.1	Chloride	15		mg Cl/L	P381994	
		Sulfate	13		mg SO4/L	P382000	
	SM 2320 B-2011	Total Alkalinity	6.2		mg CaCO3/L	P381988	
	SM 2540 C-2011	TDS	52		mg/L	P382033	
	SM 2540 D-2011	TSS	2	I	mg/L	P382027	
	SM 4500 F-C-2011	Fluoride	0.065	I	mg F/L	P381924	
2169309	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P381824	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.54		mg N/L	P381773	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P381731	
	EPA 365.1 Rev. 2.0	Total-P	0.019		mg P/L	P381803	
	SM 5310 B-2011	Organic Carbon	6.4		mg C/L	P381850	
2169318	EPA 200.7 Rev. 4.4	Barium	10.8		ug/L	P381941	
		Calcium	4.41		mg/L	P381941	
		Iron	30	U	ug/L	P381941	
		Magnesium	2.50		mg/L	P381941	
		Potassium	2.5		mg/L	P381941	
		Sodium	9.5		mg/L	P381941	
		Zinc	5.0	U	ug/L	P381941	
	EPA 200.8 Rev. 5.4	Aluminum	15	I	ug/L	P381941	
		Antimony	0.050	I	ug/L	P381941	
		Arsenic	1.08		ug/L	P381941	
		Boron**	39.6		ug/L	P381941	
		Cadmium	0.020	U	ug/L	P381941	
		Chromium	0.40	U	ug/L	P381941	
		Copper	0.40	I	ug/L	P381941	
		Lead	0.20	U	ug/L	P381941	
		Nickel	0.50	U	ug/L	P381941	
		Selenium	0.20	U	ug/L	P381941	
		Silver	0.010	U	ug/L	P381941	
		Thallium	0.10	U	ug/L	P381941	
	SM 2340B	Hardness	21.3		mg/L	P381941	

Ref. Method and Comment:

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

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

Sample Location: Lake Florida @ Center of Lake

Collection Date/Time: 04/01/2020 11:27

Field ID: G2CE0150

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2169311	EPA 300.0 Rev. 2.1	Chloride	20		mg Cl/L	P381994	
		Sulfate	4.6		mg SO4/L	P382000	
	SM 2320 B-2011	Total Alkalinity	41		mg CaCO3/L	P381988	
	SM 2540 C-2011	TDS	105		mg/L	P382034	
	SM 2540 D-2011	TSS	8	I	mg/L	P382028	
	SM 4500 F-C-2011	Fluoride	0.11		mg F/L	P381924	
2169313	EPA 350.1 Rev. 2.0	Ammonia-N	0.012		mg N/L	P381824	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.7		mg N/L	P381773	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.008	I	mg N/L	P381731	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P381803	
	SM 5310 B-2011	Organic Carbon	13		mg C/L	P381850	

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: Lake Ann at Center

Collection Date/Time: 04/01/2020 12:25

Field ID: G2CE0097

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2169306	EPA 300.0 Rev. 2.1	Chloride	20		mg Cl/L	P381994	
		Sulfate	15		mg SO4/L	P382000	
	SM 2320 B-2011	Total Alkalinity	27	AJ	mg CaCO3/L	P381920	LCS, RPD
	SM 2540 C-2011	TDS	94		mg/L	P382033	
	SM 2540 D-2011	TSS	6	I	mg/L	P382027	
	SM 4500 F-C-2011	Fluoride	0.050	I	mg F/L	P381924	
2169307	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P381824	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.83		mg N/L	P381773	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P381731	
	EPA 365.1 Rev. 2.0	Total-P	0.021		mg P/L	P381803	
	SM 5310 B-2011	Organic Carbon	9.7		mg C/L	P381850	
2169314	EPA 8321B	Aldicarb	0.020	U	ug/L	P381729	
		Aldicarb Sulfone	0.0020	U	ug/L	P381729	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P381729	MS
		Carbaryl	0.0020	U	ug/L	P381729	
		Carbofuran	0.0020	U	ug/L	P381729	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P381729	
		Methiocarb	0.0020	U	ug/L	P381729	
		Methomyl	0.0020	U	ug/L	P381729	
		Oxamyl	0.0020	U	ug/L	P381729	
		Propoxur	0.0020	U	ug/L	P381729	
2169315		2,4-D	0.0047	I	ug/L	P381729	
		Acesulfame K**	0.10	U	ug/L	P381772	MS
		AMPA**	0.10	U	ug/L	P381772	
		Sucralose**	1.4		ug/L	P381772	
		Acetaminophen**	0.0080	U	ug/L	P381729	
		Acetamiprid**	0.0020	U	ug/L	P381729	
		Endothall**	0.25	U	ug/L	P381772	
		Glufosinate**	0.10	U	ug/L	P381772	
		Glyphosate**	0.10	U	ug/L	P381772	
		Afidopyropen**	0.0020	UJ	ug/L	P381729	
		Bentazon	0.041		ug/L	P381729	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P381729	
		Carbamazepine**	8.0E-04	U	ug/L	P381729	
		Clothianidin**	0.0020	U	ug/L	P381729	
		Dinotefuran**	0.0020	U	ug/L	P381729	
		Diuron	0.0020	U	ug/L	P381729	
		Fenuron	0.016	U	ug/L	P381729	
		Fluridone**	0.0016	I	ug/L	P381729	
		Imazapyr**	0.023		ug/L	P381729	
		Hydrocodone**	0.0020	U	ug/L	P381729	
		Ibuprofen**	0.020	U	ug/L	P381729	
		Imidacloprid	0.010		ug/L	P381729	
		Linuron	0.0040	U	ug/L	P381729	

Field ID: G2CE0097

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2169315	EPA 8321B	Mandestrobin**	0.0020	UJ	ug/L	P381729	
		MCP	0.0020	U	ug/L	P381729	
		Naproxen**	0.0080	U	ug/L	P381729	
		Primidone**	0.0040	U	ug/L	P381729	
		Pyraclostrobin**	0.0020	U	ug/L	P381729	
		Thiamethoxam**	0.0020	U	ug/L	P381729	
		Tolfenpyrad**	0.0020	U	ug/L	P381729	
		Triclopyr**	0.0040	U	ug/L	P381729	
2169316	EPA 8270E	Aldrin	4.4	U	ng/L	P381648	
		Alpha-BHC	2.2	U	ng/L	P381648	
		Alpha-Chlordane	1.1	U	ng/L	P381648	
		Beta-BHC	11	U	ng/L	P381648	
		Beta-Cyfluthrin**	16	U	ng/L	P381648	MS
		Bifenthrin**	4.4	U	ng/L	P381648	
		Delta-BHC	8.8	U	ng/L	P381648	
		Gamma-BHC	8.8	U	ng/L	P381648	
		Chlorothalonil	2.2	UJ	ng/L	P381648	CCV
		Cis-Nonachlor**	1.1	U	ng/L	P381648	
		Cypermethrin	22	U	ng/L	P381648	
		Dacthal**	1.1	U	ng/L	P381648	
		DDD-p,p'	6.6	U	ng/L	P381648	
		DDE-p,p'	6.6	U	ng/L	P381648	
		DDT-p,p'	7.7	U	ng/L	P381648	
		Dicofol	33	UJ	ng/L	P381648	CCV, LCS, MS
		Dieldrin	4.4	U	ng/L	P381648	
		Endosulfan I	4.4	U	ng/L	P381648	
		Endosulfan II	4.4	U	ng/L	P381648	
		Endosulfan Sulfate	2.2	U	ng/L	P381648	MS
		Endrin	2.2	U	ng/L	P381648	
		Endrin Aldehyde	2.2	U	ng/L	P381648	
		Endrin Ketone	2.2	U	ng/L	P381648	
		Ethalfuralin**	3.3	U	ng/L	P381648	
		Gamma-Chlordane	1.1	U	ng/L	P381648	
		Heptachlor	1.6	U	ng/L	P381648	
		Heptachlor Epoxide	2.2	U	ng/L	P381648	
		Hexachlorobenzene	2.2	U	ng/L	P381648	
		Lambda-Cyhalothrin**	16	U	ng/L	P381648	MS
		Methoxychlor	4.4	U	ng/L	P381648	
		Mirex	2.2	U	ng/L	P381648	
		Permethrin	11	U	ng/L	P381648	
		Phenothrin**	33	UJ	ng/L	P381648	LCS
		Prallethrin**	33	U	ng/L	P381648	
		Trans-Nonachlor**	1.1	U	ng/L	P381648	
		Trifluralin	2.7	U	ng/L	P381648	

Field ID: G2CE0097

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2169316	EPA 8276	Chlordane	5.5	U	ng/L	P381648	
		Toxaphene	33	U	ng/L	P381648	
2169317	EPA 8270E	Acetochlor	0.24	U	ng/L	P381834	
		Alachlor	0.24	U	ng/L	P381834	
		Ametryn	0.58	U	ng/L	P381834	
		Atrazine	14		ng/L	P381834	
		Atrazine Desethyl	1.5	U	ng/L	P381834	
		Azinphos Methyl	1.9	UJ	ng/L	P381834	CCV, LCS
		Bromacil	0.48	U	ng/L	P381834	
		Butylate	0.39	U	ng/L	P381834	
		Carbophenothion	0.48	U	ng/L	P381834	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P381834	
		Chlorpyrifos Methyl	0.048	U	ng/L	P381834	
		Cyanazine	3.1	U	ng/L	P381834	
		Demeton	1.5	U	ng/L	P381834	
		Diazinon	0.12	U	ng/L	P381834	
		Dimethenamid**	0.097	U	ng/L	P381834	
		Disulfoton	0.48	U	ng/L	P381834	
		Dithiopyr**	0.18	I	ng/L	P381834	
		EPTC	1.2	U	ng/L	P381834	
		Ethion	0.15	U	ng/L	P381834	
		Ethoprop	0.097	UJ	ng/L	P381834	MS
		Fenamiphos	0.48	U	ng/L	P381834	
		Fipronil	0.24	U	ng/L	P381834	
		Fipronil Desulfinyl**	0.35	I	ng/L	P381834	
		Fipronil Sulfide	0.39	I	ng/L	P381834	
		Fipronil Sulfone	1.4		ng/L	P381834	
		Flumioxazin**	1.7	UJ	ng/L	P381834	MS
		Fonofos	0.19	U	ng/L	P381834	
		Hexazinone	0.48	U	ng/L	P381834	
		Imazalil**	0.73	U	ng/L	P381834	
		Malathion	0.34	U	ng/L	P381834	
		Metaxyl	0.73	U	ng/L	P381834	
		Metolachlor	0.48	U	ng/L	P381834	
		Metribuzin	3.1	U	ng/L	P381834	
		Mevinphos	0.48	U	ng/L	P381834	
		Molinate	0.29	U	ng/L	P381834	
		Naled**	1.5	U	ng/L	P381834	
		Norflurazon	0.48	U	ng/L	P381834	
		Oxadiazon**	1.2	Q	ng/L	P382124	
		Parathion Ethyl	0.24	U	ng/L	P381834	
		Parathion Methyl	0.53	U	ng/L	P381834	
		Pendimethalin	0.97	U	ng/L	P381834	
		Phorate	0.24	U	ng/L	P381834	
		Prodiamine**	0.17	U	ng/L	P381834	

Field ID: G2CE0097

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2169317	EPA 8270E	Prometon	0.90	I	ng/L	P381834	
		Prometryn	0.19	U	ng/L	P381834	
		Pronamide**	0.15	U	ng/L	P381834	
		Propiconazole**	0.92	I	ng/L	P381834	
		Simazine	0.48	U	ng/L	P381834	
		Sulfentrazone**	0.48	U	ng/L	P381834	
		Tebuconazole**	0.48	U	ng/L	P381834	
		Terbufos	0.097	U	ng/L	P381834	
		Terbuthylazine	0.41	U	ng/L	P381834	

Ref. Method and Comment:

SM 2320 B-2011: Refer to the Lab Analysis Report for an explanation of QC Codes.

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. MS accuracy for bentazon could not be assessed due to high concentration of parameter in the spiked sample.

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

EPA 8270E: Sample expired for preparation for oxadiazon due to need for re-extraction. Insufficient sample available to perform matrix spikes in re-extraction. Refer to the Lab Analysis Report for an explanation of QC Codes.

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P381941

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: P381941

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: P381994

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P382000

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P381824

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P381773

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P381731

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P381803

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

Reference Method: EPA 8270E
Batch ID: P381648

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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E
 Batch ID: P381834

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
Metalaxyl	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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P382124

Component	Result	Code	Units
Oxadiazon	0.10	U	ng/L

Reference Method: EPA 8276
Batch ID: P381648

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

Reference Method: EPA 8321B
Batch ID: P381729

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
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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P381772

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: SM 2320 B-2011
Batch ID: P381920

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

Reference Method: SM 2320 B-2011
Batch ID: P381988

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

Reference Method: SM 2540 C-2011
Batch ID: P382033

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-2011
Batch ID: P382034

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P382027

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P382028

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P381924

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 5310 B-2011
Batch ID: P381850

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: P381941

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	97.1		P	85 - 115
Calcium	100		P	85 - 115
Iron	102		P	85 - 115
Magnesium	101		P	85 - 115
Potassium	97.5		P	85 - 115
Sodium	99.6		P	85 - 115
Zinc	98.3		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P381941

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	91.8		P	85 - 115
Antimony	95.9		P	85 - 115
Arsenic	97.3		P	85 - 115
Boron	94.7		P	85 - 115
Cadmium	95.8		P	85 - 115
Chromium	92.3		P	85 - 115
Copper	92.5		P	85 - 115
Lead	93.1		P	85 - 115
Nickel	91.3		P	85 - 115
Selenium	91.8		P	85 - 115
Silver	95.5		P	85 - 115
Thallium	95.6		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P381994

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P382000

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P381824

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P381773

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	97.8		P	90 - 110

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P381731

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P381803

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

Reference Method: EPA 8270E
 Batch ID: P381648

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	40.3	39.6	P/P	20 - 87.0
Alpha-BHC	95.0	87.8	P/P	65 - 142
Alpha-Chlordane	90.0	87.2	P/P	58 - 106
Beta-BHC	105	109	P/P	65 - 179
Beta-Cyfluthrin	110	113	P/P	50 - 150
Bifenthrin	86.8	86.1	P/P	38 - 128
Chlorothalonil	157	128	P/P	20 - 214
Cis-Nonachlor	96.6	90.9	P/P	56 - 113
Cypermethrin	100	91.9	P/P	37 - 130
Dacthal	95.7	93.1	P/P	50 - 150
DDD-p,p'	108	96.9	P/P	66 - 119
DDE-p,p'	87.1	91.5	P/P	53 - 108
DDT-p,p'	86.8	87.1	P/P	57 - 133
Delta-BHC	129	105	P/P	68 - 187
Dicofol	132	115	F/P	66 - 123
Dieldrin	97.1	94.5	P/P	65 - 111
Endosulfan I	105	105	P/P	65 - 115
Endosulfan II	113	113	P/P	68 - 133
Endosulfan Sulfate	118	95.2	P/P	62 - 127
Endrin	97.2	97.1	P/P	64 - 122
Endrin Aldehyde	109	110	P/P	61 - 132
Endrin Ketone	110	102	P/P	66 - 120
Ethalfuralin	80.8	79.7	P/P	57 - 127
Gamma-BHC	109	99.7	P/P	71 - 158
Gamma-Chlordane	83.2	83.1	P/P	53 - 106
Heptachlor	74.8	72.7	P/P	45 - 96.0
Heptachlor Epoxide	92.2	90.7	P/P	64 - 109
Hexachlorobenzene	76.5	75.3	P/P	46 - 103
Lambda-Cyhalothrin	113	114	P/P	50 - 150
Methoxychlor	93.1	96.1	P/P	69 - 149
Mirex	66.9	67.6	P/P	31 - 90.0
Permethrin	82.2	81.6	P/P	41 - 108
Phenothrin	45.8	45.9	F/F	50 - 150
Prallethrin	55.9	48.3	P/P	40 - 140
Trans-Nonachlor	88.6	86.7	P/P	50 - 107
Trifluralin	80.6	80.5	P/P	58 - 119

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P381834

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	109	98.3	P/P	71 - 122
Alachlor	106	97.5	P/P	70 - 121
Ametryn	114	111	P/P	49 - 137
Atrazine	116	109	P/P	76 - 125
Atrazine Desethyl	80.6	77.4	P/P	31 - 144
Azinphos Methyl	153	116	F/P	67 - 150
Bromacil	100	88.5	P/P	36 - 121
Butylate	75.8	69.7	P/P	33 - 88.0
Carbophenothion	93.4	90.1	P/P	50 - 150
Chlorpyrifos Ethyl	101	95.8	P/P	73 - 117
Chlorpyrifos Methyl	95.3	87.6	P/P	68 - 121
Cyanazine	129	114	P/P	20 - 250
Demeton	78.5	74.7	P/P	30 - 123
Diazinon	110	97.6	P/P	70 - 128
Dimethenamid	106	98.9	P/P	66 - 122
Disulfoton	78.1	74.6	P/P	46 - 124
Dithiopyr	104	96.6	P/P	69 - 122
EPTC	85.4	77.2	P/P	31 - 90.0
Ethion	103	95.1	P/P	45 - 135
Ethoprop	105	96.8	P/P	59 - 118
Fenamiphos	98.2	92.1	P/P	30 - 136
Fipronil	106	99.4	P/P	57 - 127
Fipronil Desulfinyl	113	104	P/P	51 - 122
Fipronil Sulfide	94.3	91.9	P/P	57 - 119
Fipronil Sulfone	90.7	89.5	P/P	51 - 119
Flumioxazin	159	136	P/P	70 - 200
Fonofos	91.6	80.6	P/P	60 - 120
Hexazinone	128	111	P/P	57 - 142
Imazalil	94.0	102	P/P	50 - 150
Malathion	112	105	P/P	67 - 128
Metaxyl	111	103	P/P	21 - 148
Metolachlor	99.0	92.0	P/P	70 - 120
Metribuzin	104	105	P/P	20 - 253
Mevinphos	90.6	85.5	P/P	47 - 116
Molinate	91.3	82.3	P/P	41 - 99.0
Naled	71.4	64.6	P/P	40 - 130
Norflurazon	102	95.5	P/P	54 - 127
Parathion Ethyl	110	98.3	P/P	71 - 113
Parathion Methyl	106	97.7	P/P	73 - 129
Pendimethalin	95.7	85.2	P/P	63 - 130
Phorate	92.9	85.9	P/P	48 - 118
Prodiamine	76.3	73.1	P/P	20 - 144
Prometon	105	96.6	P/P	53 - 120
Prometryn	110	99.3	P/P	63 - 119
Pronamide	118	108	P/P	50 - 150
Propiconazole	102	99.7	P/P	50 - 150
Simazine	123	111	P/P	77 - 129
Sulfentrazone	88.8	90.4	P/P	50 - 150
Tebuconazole	65.4	71.4	P/P	20 - 118
Terbufos	98.4	86.3	P/P	61 - 119
Terbutylazine	108	102	P/P	75 - 119

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P382124

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Oxadiazon	106	91.1	P/P	65 - 122

Reference Method: EPA 8276

Batch ID: P381648

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	88.4	90.1	P/P	47 - 119
Toxaphene	78.6	77.6	P/P	41 - 112

Reference Method: EPA 8321B

Batch ID: P381729

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	115		P	30 - 160
3-Hydroxycarbofuran	91.3		P	30 - 160
Acetaminophen	66.6		P	30 - 160
Acetamiprid	94.2		P	30 - 160
Afidopyropen	92.7		P	30 - 160
Aldicarb	64.8		P	30 - 160
Aldicarb Sulfone	75.5		P	30 - 160
Aldicarb Sulfoxide	82.2		P	30 - 160
Bentazon	54.3		P	30 - 160
Benzovindiflupyr	78.1		P	30 - 160
Carbamazepine	110		P	30 - 160
Carbaryl	71.0		P	30 - 160
Carbofuran	57.0		P	30 - 160
Clothianidin	79.8		P	30 - 160
Dinotefuran	71.5		P	30 - 160
Diuron	94.1		P	30 - 160
Fenuron	100		P	30 - 160
Fluridone	82.1		P	30 - 160
Hydrocodone	82.5		P	30 - 160
Ibuprofen	72.8		P	30 - 160
Imazapyr	73.8		P	30 - 160
Imidacloprid	107		P	30 - 160
Linuron	64.4		P	30 - 160
Mandestrobin	80.0		P	30 - 160
MCP	124		P	30 - 160
Methiocarb	59.5		P	30 - 160
Methomyl	73.5		P	30 - 160
Naproxen	69.1		P	30 - 160
Oxamyl	75.5		P	30 - 160
Primidone	91.9		P	30 - 160
Propoxur	55.3		P	30 - 160
Pyraclostrobin	77.8		P	30 - 160
Thiamethoxam	90.2		P	30 - 160
Tolfenpyrad	52.5		P	30 - 160
Triclopyr	98.0		P	30 - 160

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P381772

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	102		P	40 - 150
AMPA	88.5		P	40 - 150
Endothall	92.0		P	40 - 150
Glufosinate	101		P	40 - 150
Glyphosate	95.7		P	40 - 140
Sucralose	99.4		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P381920

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.8		F	98 - 107

Reference Method: SM 2320 B-2011
Batch ID: P381988

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.0		P	98 - 107

Reference Method: SM 4500 F-C-2011
Batch ID: P381924

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	102		P	92 - 104

Reference Method: SM 5310 B-2011
Batch ID: P381850

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.5		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P381941

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2169376	Barium	94.6	96.5	P/P	80 - 120
2169376	Calcium	103		P	80 - 120
2169376	Iron	103	104	P/P	80 - 120
2169376	Magnesium	102		P	80 - 120
2169376	Potassium	98.2	97.4	P/P	80 - 120
2169376	Sodium	101		P	80 - 120
2169376	Zinc	94.7	95.6	P/P	80 - 120
2169385	Barium	92.6		P	80 - 120
2169385	Iron	98.2		P	80 - 120
2169385	Magnesium	103		P	80 - 120
2169385	Potassium	92.9		P	80 - 120
2169385	Sodium	99.7		P	80 - 120
2169385	Zinc	95.1		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P381941

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2169376	Aluminum	94.3	95.1	P/P	80 - 120
2169376	Antimony	96.3	98.3	P/P	80 - 120
2169376	Arsenic	96.1	99.1	P/P	80 - 120
2169376	Boron	98.6	97.3	P/P	80 - 120
2169376	Cadmium	95.5	98.9	P/P	80 - 120
2169376	Chromium	96.2	99.1	P/P	80 - 120
2169376	Copper	95.9	93.3	P/P	80 - 120
2169376	Lead	94.0	95.3	P/P	80 - 120
2169376	Nickel	92.5	93.7	P/P	80 - 120
2169376	Selenium	90.2	92.4	P/P	80 - 120
2169376	Silver	93.8	95.1	P/P	80 - 120
2169376	Thallium	97.7	101	P/P	80 - 120
2169385	Aluminum	88.8		P	80 - 120
2169385	Antimony	99.0		P	80 - 120
2169385	Arsenic	99.4		P	80 - 120
2169385	Boron	96.0		P	80 - 120
2169385	Cadmium	97.0		P	80 - 120
2169385	Chromium	97.2		P	80 - 120
2169385	Copper	92.0		P	80 - 120
2169385	Lead	95.0		P	80 - 120
2169385	Nickel	93.2		P	80 - 120
2169385	Selenium	92.3		P	80 - 120
2169385	Silver	93.6		P	80 - 120
2169385	Thallium	99.6		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P381994

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2169205	Chloride	103		P	90 - 110
2169297	Chloride	98.6		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P382000

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2169205	Sulfate	103		P	90 - 110
2169297	Sulfate	98.5		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P381824

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2169295	Ammonia-N	99.9	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P381773

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2169307	Kjeldahl Nitrogen	98.1	97.7	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P381731

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2169295	NO2NO3-N	95.5	97.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P381803

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2169289	Total-P	103	104	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P381648

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2168844	Aldrin	67.5	70.2	P/P	32 - 82.0
2168844	Alpha-BHC	103	106	P/P	68 - 157
2168844	Alpha-Chlordane	88.4	93.9	P/P	54 - 108
2168844	Beta-BHC	116	113	P/P	54 - 200
2168844	Beta-Cyfluthrin	154	163	F/F	50 - 150
2168844	Bifenthrin	97.8	105	P/P	49 - 124
2168844	Chlorothalonil	235	284	P/P	10 - 289
2168844	Cis-Nonachlor	95.0	103	P/P	53 - 112
2168844	Cypermethrin	128	134	P/P	43 - 141
2168844	Dacthal	95.7	99.0	P/P	50 - 150
2168844	DDD-p,p'	103	109	P/P	58 - 125
2168844	DDE-p,p'	84.0	85.9	P/P	50 - 108
2168844	DDT-p,p'	84.2	81.3	P/P	52 - 140
2168844	Delta-BHC	182	196	P/P	61 - 228
2168844	Dicofol	137	125	F/P	59 - 130
2168844	Dieldrin	94.6	98.8	P/P	57 - 121
2168844	Endosulfan I	118	119	P/P	62 - 123
2168844	Endosulfan II	124	141	P/P	48 - 163
2168844	Endosulfan Sulfate	124	141	P/F	63 - 132
2168844	Endrin	98.0	103	P/P	58 - 128
2168844	Endrin Aldehyde	82.2	82.7	P/P	44 - 126

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P381648

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2168844	Endrin Ketone	118	124	P/P	68 - 127
2168844	Ethalfuralin	82.0	79.4	P/P	55 - 131
2168844	Gamma-BHC	121	127	P/P	54 - 206
2168844	Gamma-Chlordane	84.4	88.5	P/P	52 - 105
2168844	Heptachlor	73.5	80.7	P/P	47 - 94.0
2168844	Heptachlor Epoxide	91.0	96.1	P/P	61 - 113
2168844	Hexachlorobenzene	78.8	76.8	P/P	45 - 100
2168844	Lambda-Cyhalothrin	169	183	F/F	50 - 150
2168844	Methoxychlor	91.6	89.4	P/P	63 - 153
2168844	Mirex	75.8	76.4	P/P	38 - 90.0
2168844	Permethrin	91.6	92.1	P/P	45 - 112
2168844	Phenothrin	87.3	89.5	P/P	50 - 150
2168844	Prallethrin	84.7	90.8	P/P	40 - 140
2168844	Trans-Nonachlor	87.7	92.6	P/P	50 - 103
2168844	Trifluralin	83.1	82.4	P/P	57 - 122

Reference Method: EPA 8270E
Batch ID: P381834

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2169317	Acetochlor	95.8	94.6	P/P	68 - 126
2169317	Alachlor	99.6	94.5	P/P	66 - 125
2169317	Ametryn	125	111	P/P	31 - 182
2169317	Atrazine	102	113	P/P	68 - 137
2169317	Atrazine Desethyl	103	95.3	P/P	13 - 161
2169317	Azinphos Methyl	159	159	P/P	54 - 162
2169317	Bromacil	102	101	P/P	34 - 144
2169317	Butylate	63.3	74.5	P/P	16 - 92.0
2169317	Carbophenothion	82.7	81.5	P/P	50 - 150
2169317	Chlorpyrifos Ethyl	94.6	88.5	P/P	63 - 124
2169317	Chlorpyrifos Methyl	95.7	94.8	P/P	64 - 125
2169317	Cyanazine	131	132	P/P	13 - 245
2169317	Demeton	117	119	P/P	20 - 154
2169317	Diazinon	107	109	P/P	66 - 141
2169317	Dimethenamid	92.2	90.3	P/P	50 - 130
2169317	Disulfoton	111	85.1	P/P	55 - 130
2169317	Dithiopyr	84.3	81.4	P/P	66 - 122
2169317	EPTC	79.9	84.2	P/P	15 - 93.0
2169317	Ethion	82.7	88.8	P/P	15 - 148
2169317	Ethoprop	141	139	F/F	59 - 126
2169317	Fenamiphos	77.3	76.1	P/P	39 - 137
2169317	Fipronil	92.8	92.4	P/P	47 - 131
2169317	Fipronil Desulfinyl	94.7	91.4	P/P	43 - 121
2169317	Fipronil Sulfide	84.5	83.2	P/P	29 - 134
2169317	Fipronil Sulfone	71.5	71.0	P/P	19 - 131
2169317	Flumioxazin	200	207	P/F	70 - 200
2169317	Fonofos	114	106	P/P	62 - 128
2169317	Hexazinone	118	123	P/P	58 - 154
2169317	Imazalil	83.8	89.6	P/P	50 - 150
2169317	Malathion	105	106	P/P	54 - 135
2169317	Metalaxyl	98.1	95.8	P/P	46 - 136
2169317	Metolachlor	83.3	82.8	P/P	62 - 126

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P381834

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2169317	Metribuzin	143	142	P/P	44 - 277
2169317	Mevinphos	131	131	P/P	44 - 135
2169317	Molinate	87.5	95.7	P/P	31 - 104
2169317	Naled	81.5	72.7	P/P	40 - 130
2169317	Norflurazon	83.5	84.3	P/P	32 - 134
2169317	Parathion Ethyl	111	111	P/P	67 - 120
2169317	Parathion Methyl	132	135	P/P	70 - 140
2169317	Pendimethalin	107	105	P/P	59 - 145
2169317	Phorate	121	115	P/P	52 - 127
2169317	Prodiamine	37.8	33.0	P/P	11 - 157
2169317	Prometon	93.1	93.0	P/P	55 - 130
2169317	Prometryn	98.8	92.2	P/P	55 - 127
2169317	Pronamide	148	150	P/P	50 - 150
2169317	Propiconazole	83.7	84.8	P/P	50 - 150
2169317	Simazine	152	146	P/P	58 - 159
2169317	Sulfentrazone	75.8	72.0	P/P	50 - 150
2169317	Tebuconazole	33.2	33.3	P/P	10 - 122
2169317	Terbufos	123	123	P/P	65 - 131
2169317	Terbutylazine	105	106	P/P	63 - 131

Reference Method: EPA 8276
Batch ID: P381648

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2169482	Chlordane	96.9	95.0	P/P	34 - 129
2169482	Toxaphene	72.2	71.7	P/P	26 - 123

Reference Method: EPA 8321B
Batch ID: P381729

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2168838	3-Hydroxycarbofuran	75.5	79.3	P/P	30 - 160
2168838	Aldicarb	42.8	50.2	P/P	30 - 160
2168838	Aldicarb Sulfone	88.9	87.9	P/P	30 - 160
2168838	Aldicarb Sulfoxide	27.5	26.0	F/F	30 - 160
2168838	Carbaryl	56.6	57.9	P/P	30 - 160
2168838	Carbofuran	40.6	39.2	P/P	30 - 160
2168838	Methiocarb	54.4	49.1	P/P	30 - 160
2168838	Methomyl	55.6	58.4	P/P	30 - 160
2168838	Oxamyl	72.3	65.7	P/P	30 - 160
2168838	Propoxur	38.2	36.0	P/P	30 - 160
2169069	2,4-D	119	111	P/P	30 - 160
2169069	Acetaminophen	101	88.6	P/P	30 - 160
2169069	Acetamiprid	90.9	81.2	P/P	30 - 160
2169069	Afidopyropen	110	96.1	P/P	30 - 160
2169069	Benzovindiflupyr	87.2	75.0	P/P	30 - 160
2169069	Carbamazepine	91.1	80.7	P/P	30 - 160
2169069	Clothianidin	82.2	78.3	P/P	30 - 160
2169069	Dinotefuran	92.8	92.5	P/P	30 - 160
2169069	Diuron	96.4	83.4	P/P	30 - 160
2169069	Fenuron	66.4	58.8	P/P	30 - 160
2169069	Fluridone	89.5	73.5	P/P	30 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P381729

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2169069	Hydrocodone	86.6	76.6	P/P	30 - 160
2169069	Ibuprofen	73.9	63.1	P/P	30 - 160
2169069	Imazapyr	110	89.1	P/P	30 - 160
2169069	Imidacloprid	144	125	P/P	30 - 160
2169069	Linuron	66.7	53.9	P/P	30 - 160
2169069	Mandestrobin	91.1	78.4	P/P	30 - 160
2169069	MCP	127	111	P/P	30 - 160
2169069	Naproxen	80.9	66.9	P/P	30 - 160
2169069	Primidone	82.2	70.3	P/P	30 - 160
2169069	Pyraclostrobin	90.5	80.8	P/P	30 - 160
2169069	Thiamethoxam	116	100	P/P	30 - 160
2169069	Tolfenpyrad	60.3	51.6	P/P	30 - 160
2169069	Triclopyr	118	102	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P381772

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2169045	Acesulfame K	18.8	18.0	F/F	40 - 150
2169045	AMPA	59.9	56.5	P/P	40 - 150
2169045	Endothall	98.6	111	P/P	40 - 150
2169045	Glufosinate	93.7	89.1	P/P	40 - 150
2169045	Glyphosate	100	84.2	P/P	40 - 140
2169045	Sucralose	95.5	87.1	P/P	40 - 150

Reference Method: SM 4500 F-C-2011
Batch ID: P381924

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2169306	Fluoride	100	99.5	P/P	91 - 105

Reference Method: SM 5310 B-2011
Batch ID: P381850

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2169295	Organic Carbon	97.2	95.1	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P381941

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2169376	Barium	1.87	Spike	P	0 - 20
2169376	Calcium	0.664	Spike	P	0 - 20
2169376	Iron	0.391	Spike	P	0 - 20
2169376	Magnesium	0.769	Spike	P	0 - 20
2169376	Potassium	0.629	Spike	P	0 - 20
2169376	Sodium	0.133	Spike	P	0 - 20
2169376	Zinc	1.02	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P381941

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2169376	Aluminum	0.712	Spike	P	0 - 20
2169376	Antimony	2.03	Spike	P	0 - 20
2169376	Arsenic	3.03	Spike	P	0 - 20
2169376	Boron	1.15	Spike	P	0 - 20
2169376	Cadmium	3.49	Spike	P	0 - 20
2169376	Chromium	2.78	Spike	P	0 - 20
2169376	Copper	2.75	Spike	P	0 - 20
2169376	Lead	1.35	Spike	P	0 - 20
2169376	Nickel	1.31	Spike	P	0 - 20
2169376	Selenium	2.41	Spike	P	0 - 20
2169376	Silver	1.35	Spike	P	0 - 20
2169376	Thallium	3.08	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P381994

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2169297	Chloride	0.681	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P382000

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2169297	Sulfate	0.408	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P381824

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2169295	Ammonia-N	0.616	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P381773

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2169307	Kjeldahl Nitrogen	0.214	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P381731

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2169295	NO2NO3-N	1.56	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P381803

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2169289	Total-P	1.67	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P381648

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2168844	Aldrin	3.94	Spike	P	0 - 30
2168844	Alpha-BHC	3.58	Spike	P	0 - 30
2168844	Alpha-Chlordane	5.99	Spike	P	0 - 30
2168844	Beta-BHC	2.71	Spike	P	0 - 30
2168844	Beta-Cyfluthrin	5.72	Spike	P	0 - 30
2168844	Bifenthrin	6.68	Spike	P	0 - 30
2168844	Chlorothalonil	18.8	Spike	P	0 - 30
2168844	Cis-Nonachlor	8.44	Spike	P	0 - 30
2168844	Cypermethrin	5.07	Spike	P	0 - 30
2168844	Dacthal	3.35	Spike	P	0 - 30
2168844	DDD-p,p'	6.13	Spike	P	0 - 30
2168844	DDE-p,p'	2.27	Spike	P	0 - 30
2168844	DDT-p,p'	3.49	Spike	P	0 - 30
2168844	Delta-BHC	7.11	Spike	P	0 - 30
2168844	Dicofol	8.98	Spike	P	0 - 30
2168844	Dieldrin	4.41	Spike	P	0 - 30
2168844	Endosulfan I	0.881	Spike	P	0 - 30
2168844	Endosulfan II	12.5	Spike	P	0 - 30
2168844	Endosulfan Sulfate	12.9	Spike	P	0 - 30
2168844	Endrin	5.22	Spike	P	0 - 30
2168844	Endrin Aldehyde	0.618	Spike	P	0 - 30
2168844	Endrin Ketone	5.33	Spike	P	0 - 30
2168844	Ethalfuralin	3.28	Spike	P	0 - 30
2168844	Gamma-BHC	4.97	Spike	P	0 - 30
2168844	Gamma-Chlordane	4.71	Spike	P	0 - 30
2168844	Heptachlor	9.36	Spike	P	0 - 30
2168844	Heptachlor Epoxide	5.43	Spike	P	0 - 30
2168844	Hexachlorobenzene	2.56	Spike	P	0 - 30
2168844	Lambda-Cyhalothrin	7.93	Spike	P	0 - 30
2168844	Methoxychlor	2.41	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P381648

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2168844	Mirex	0.696	Spike	P	0 - 30
2168844	Permethrin	0.570	Spike	P	0 - 30
2168844	Phenothrin	2.45	Spike	P	0 - 30
2168844	Prallethrin	6.94	Spike	P	0 - 30
2168844	Trans-Nonachlor	5.51	Spike	P	0 - 30
2168844	Trifluralin	0.840	Spike	P	0 - 30
LFB	Aldrin	1.72	LCS	P	0 - 30
LFB	Alpha-BHC	7.82	LCS	P	0 - 30
LFB	Alpha-Chlordane	3.23	LCS	P	0 - 30
LFB	Beta-BHC	4.22	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	2.35	LCS	P	0 - 30
LFB	Bifenthrin	0.807	LCS	P	0 - 30
LFB	Chlorothalonil	20.5	LCS	P	0 - 30
LFB	Cis-Nonachlor	6.05	LCS	P	0 - 30
LFB	Cypermethrin	8.94	LCS	P	0 - 30
LFB	Dacthal	2.70	LCS	P	0 - 30
LFB	DDD-p,p'	10.7	LCS	P	0 - 30
LFB	DDE-p,p'	4.90	LCS	P	0 - 30
LFB	DDT-p,p'	0.274	LCS	P	0 - 30
LFB	Delta-BHC	20.0	LCS	P	0 - 30
LFB	Dicofol	14.0	LCS	P	0 - 30
LFB	Dieldrin	2.75	LCS	P	0 - 30
LFB	Endosulfan I	0.292	LCS	P	0 - 30
LFB	Endosulfan II	0.718	LCS	P	0 - 30
LFB	Endosulfan Sulfate	21.1	LCS	P	0 - 30
LFB	Endrin	0.0855	LCS	P	0 - 30
LFB	Endrin Aldehyde	0.442	LCS	P	0 - 30
LFB	Endrin Ketone	7.64	LCS	P	0 - 30
LFB	Ethalfuralin	1.32	LCS	P	0 - 30
LFB	Gamma-BHC	8.92	LCS	P	0 - 30
LFB	Gamma-Chlordane	0.106	LCS	P	0 - 30
LFB	Heptachlor	2.83	LCS	P	0 - 30
LFB	Heptachlor Epoxide	1.66	LCS	P	0 - 30
LFB	Hexachlorobenzene	1.63	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	0.540	LCS	P	0 - 30
LFB	Methoxychlor	3.21	LCS	P	0 - 30
LFB	Mirex	0.946	LCS	P	0 - 30
LFB	Permethrin	0.769	LCS	P	0 - 30
LFB	Phenothrin	0.205	LCS	P	0 - 30
LFB	Prallethrin	14.5	LCS	P	0 - 30
LFB	Trans-Nonachlor	2.21	LCS	P	0 - 30
LFB	Trifluralin	0.0437	LCS	P	0 - 30

Reference Method: EPA 8270E

Batch ID: P381834

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2169317	Acetochlor	1.23	Spike	P	0 - 30
2169317	Alachlor	5.26	Spike	P	0 - 30
2169317	Ametryn	11.5	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P381834

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2169317	Atrazine	2.30	Spike	P	0 - 30
2169317	Atrazine Desethyl	7.83	Spike	P	0 - 30
2169317	Azinphos Methyl	0.357	Spike	P	0 - 30
2169317	Bromacil	0.312	Spike	P	0 - 30
2169317	Butylate	16.3	Spike	P	0 - 30
2169317	Carbophenothion	1.49	Spike	P	0 - 30
2169317	Chlorpyrifos Ethyl	6.65	Spike	P	0 - 30
2169317	Chlorpyrifos Methyl	0.971	Spike	P	0 - 30
2169317	Cyanazine	0.583	Spike	P	0 - 30
2169317	Demeton	1.68	Spike	P	0 - 30
2169317	Diazinon	1.86	Spike	P	0 - 30
2169317	Dimethenamid	2.09	Spike	P	0 - 30
2169317	Disulfoton	26.1	Spike	P	0 - 30
2169317	Dithiopyr	3.31	Spike	P	0 - 30
2169317	EPTC	5.18	Spike	P	0 - 30
2169317	Ethion	7.17	Spike	P	0 - 30
2169317	Ethoprop	1.38	Spike	P	0 - 30
2169317	Fenamiphos	1.65	Spike	P	0 - 30
2169317	Fipronil	0.446	Spike	P	0 - 30
2169317	Fipronil Desulfinyl	3.26	Spike	P	0 - 30
2169317	Fipronil Sulfide	1.21	Spike	P	0 - 30
2169317	Fipronil Sulfone	0.338	Spike	P	0 - 30
2169317	Flumioxazin	3.65	Spike	P	0 - 30
2169317	Fonofos	7.30	Spike	P	0 - 30
2169317	Hexazinone	3.79	Spike	P	0 - 30
2169317	Imazalil	6.71	Spike	P	0 - 30
2169317	Malathion	1.11	Spike	P	0 - 30
2169317	Metalaxyl	2.32	Spike	P	0 - 30
2169317	Metolachlor	0.604	Spike	P	0 - 30
2169317	Metribuzin	0.973	Spike	P	0 - 30
2169317	Mevinphos	0.483	Spike	P	0 - 30
2169317	Molinate	8.97	Spike	P	0 - 30
2169317	Naled	11.4	Spike	P	0 - 30
2169317	Norflurazon	0.978	Spike	P	0 - 30
2169317	Parathion Ethyl	0.180	Spike	P	0 - 30
2169317	Parathion Methyl	2.25	Spike	P	0 - 30
2169317	Pendimethalin	1.46	Spike	P	0 - 30
2169317	Phorate	4.88	Spike	P	0 - 30
2169317	Prodiamine	13.6	Spike	P	0 - 30
2169317	Prometon	0.0734	Spike	P	0 - 30
2169317	Prometryn	6.91	Spike	P	0 - 30
2169317	Pronamide	1.31	Spike	P	0 - 30
2169317	Propiconazole	1.00	Spike	P	0 - 30
2169317	Simazine	3.85	Spike	P	0 - 30
2169317	Sulfentrazone	5.14	Spike	P	0 - 30
2169317	Tebuconazole	0.298	Spike	P	0 - 30
2169317	Terbufos	0.0356	Spike	P	0 - 30
2169317	Terbuthylazine	1.67	Spike	P	0 - 30
LFB	Acetochlor	9.88	LCS	P	0 - 30
LFB	Alachlor	8.70	LCS	P	0 - 30
LFB	Ametryn	2.59	LCS	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P381834

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Atrazine	6.65	LCS	P	0 - 30
LFB	Atrazine Desethyl	3.99	LCS	P	0 - 30
LFB	Azinphos Methyl	27.5	LCS	P	0 - 30
LFB	Bromacil	12.7	LCS	P	0 - 30
LFB	Butylate	8.42	LCS	P	0 - 30
LFB	Carbophenothion	3.60	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	4.96	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	8.38	LCS	P	0 - 30
LFB	Cyanazine	12.8	LCS	P	0 - 30
LFB	Demeton	4.95	LCS	P	0 - 30
LFB	Diazinon	12.0	LCS	P	0 - 30
LFB	Dimethenamid	6.99	LCS	P	0 - 30
LFB	Disulfoton	4.56	LCS	P	0 - 30
LFB	Dithiopyr	7.71	LCS	P	0 - 30
LFB	EPTC	10.2	LCS	P	0 - 30
LFB	Ethion	7.54	LCS	P	0 - 30
LFB	Ethoprop	7.85	LCS	P	0 - 30
LFB	Fenamiphos	6.41	LCS	P	0 - 30
LFB	Fipronil	6.32	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	7.83	LCS	P	0 - 30
LFB	Fipronil Sulfide	2.54	LCS	P	0 - 30
LFB	Fipronil Sulfone	1.32	LCS	P	0 - 30
LFB	Flumioxazin	15.9	LCS	P	0 - 30
LFB	Fonofos	12.8	LCS	P	0 - 30
LFB	Hexazinone	14.2	LCS	P	0 - 30
LFB	Imazalil	8.18	LCS	P	0 - 30
LFB	Malathion	6.21	LCS	P	0 - 30
LFB	Metalaxyl	7.93	LCS	P	0 - 30
LFB	Metolachlor	7.35	LCS	P	0 - 30
LFB	Metribuzin	0.791	LCS	P	0 - 30
LFB	Mevinphos	5.82	LCS	P	0 - 30
LFB	Molinate	10.4	LCS	P	0 - 30
LFB	Naled	9.93	LCS	P	0 - 30
LFB	Norflurazon	6.13	LCS	P	0 - 30
LFB	Parathion Ethyl	11.2	LCS	P	0 - 30
LFB	Parathion Methyl	8.44	LCS	P	0 - 30
LFB	Pendimethalin	11.6	LCS	P	0 - 30
LFB	Phorate	7.83	LCS	P	0 - 30
LFB	Prodiamine	4.32	LCS	P	0 - 30
LFB	Prometon	8.14	LCS	P	0 - 30
LFB	Prometryn	10.1	LCS	P	0 - 30
LFB	Pronamide	9.04	LCS	P	0 - 30
LFB	Propiconazole	2.11	LCS	P	0 - 30
LFB	Simazine	10.7	LCS	P	0 - 30
LFB	Sulfentrazone	1.82	LCS	P	0 - 30
LFB	Tebuconazole	8.79	LCS	P	0 - 30
LFB	Terbufos	13.2	LCS	P	0 - 30
LFB	Terbutylazine	5.40	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P382124

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Oxadiazon	15.0	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P381648

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2169482	Chlordane	1.85	Spike	P	0 - 30
2169482	Toxaphene	0.667	Spike	P	0 - 30
LFB	Chlordane	1.88	LCS	P	0 - 30
LFB	Toxaphene	1.32	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P381729

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2168838	3-Hydroxycarbofuran	4.94	Spike	P	0 - 30
2168838	Aldicarb	16.0	Spike	P	0 - 30
2168838	Aldicarb Sulfone	1.11	Spike	P	0 - 30
2168838	Aldicarb Sulfoxide	5.65	Spike	P	0 - 30
2168838	Carbaryl	2.17	Spike	P	0 - 30
2168838	Carbofuran	3.45	Spike	P	0 - 30
2168838	Methiocarb	10.2	Spike	P	0 - 30
2168838	Methomyl	4.89	Spike	P	0 - 30
2168838	Oxamyl	9.53	Spike	P	0 - 30
2168838	Propoxur	5.95	Spike	P	0 - 30
2169069	2,4-D	5.17	Spike	P	0 - 30
2169069	Acetaminophen	12.7	Spike	P	0 - 30
2169069	Acetamiprid	11.2	Spike	P	0 - 30
2169069	Afidopyropen	13.5	Spike	P	0 - 30
2169069	Bentazon	6.74	Spike	P	0 - 30
2169069	Benzovindiflupyr	15.1	Spike	P	0 - 30
2169069	Carbamazepine	12.1	Spike	P	0 - 30
2169069	Clothianidin	4.66	Spike	P	0 - 30
2169069	Dinotefuran	0.228	Spike	P	0 - 30
2169069	Diuron	14.4	Spike	P	0 - 30
2169069	Fenuron	12.1	Spike	P	0 - 30
2169069	Fluridone	15.7	Spike	P	0 - 30
2169069	Hydrocodone	12.3	Spike	P	0 - 30
2169069	Ibuprofen	15.8	Spike	P	0 - 30
2169069	Imazapyr	15.7	Spike	P	0 - 30
2169069	Imidacloprid	13.4	Spike	P	0 - 30
2169069	Linuron	21.3	Spike	P	0 - 30
2169069	Mandestrobin	15.0	Spike	P	0 - 30
2169069	MCPP	13.9	Spike	P	0 - 30
2169069	Naproxen	19.0	Spike	P	0 - 30
2169069	Primidone	15.6	Spike	P	0 - 30
2169069	Pyraclostrobin	11.3	Spike	P	0 - 30
2169069	Thiamethoxam	13.4	Spike	P	0 - 30
2169069	Tolfenpyrad	15.6	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
 Batch ID: P381729

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2169069	Triclopyr	14.2	Spike	P	0 - 30

Reference Method: EPA 8321B
 Batch ID: P381772

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2169045	Acesulfame K	4.28	Spike	P	0 - 30
2169045	AMPA	3.91	Spike	P	0 - 30
2169045	Endothall	11.7	Spike	P	0 - 30
2169045	Glufosinate	5.02	Spike	P	0 - 30
2169045	Glyphosate	15.5	Spike	P	0 - 30
2169045	Sucralose	9.15	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
 Batch ID: P381920

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2169306	Total Alkalinity	5.14	Sample	F	0 - 3.3

Reference Method: SM 2320 B-2011
 Batch ID: P381988

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2169288	Total Alkalinity	0.372	Sample	P	0 - 3.3

Reference Method: SM 2540 C-2011
 Batch ID: P382033

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2169258	TDS	3.10	Sample	P	0 - 10

Reference Method: SM 2540 C-2011
 Batch ID: P382034

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2169343	TDS	3.94	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
 Batch ID: P381924

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2169306	Fluoride	0.508	Spike	P	0 - 2.0

Quality Assurance Report Precision

Reference Method: SM 5310 B-2011
Batch ID: P381850

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2169295	Organic Carbon	1.18	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2169314
Field Sample ID: G2CE0097

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	70.1	P	30 - 160

Lab Sample ID: 2169315
Field Sample ID: G2CE0097

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	116	P	30 - 160
EPA 8321B	Acetaminophen-d4	113	P	30 - 160
EPA 8321B	Carbamazepine-d10	116	P	30 - 160
EPA 8321B	Diuron-d6	119	P	30 - 160
EPA 8321B	Endothall-d6	136	P	30 - 160
EPA 8321B	Endothall-d6	136	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	96.4	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	96.4	P	30 - 160
EPA 8321B	Ibuprofen-d3	92.8	P	30 - 160
EPA 8321B	Primidone-d5	107	P	30 - 160
EPA 8321B	Sucralose-d6	102	P	30 - 160
EPA 8321B	Sucralose-d6	102	P	30 - 160

Lab Sample ID: 2169316
Field Sample ID: G2CE0097

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	59.1	P	44 - 112
EPA 8270E	Tetrachloro-m-xylene	47.4	P	34 - 106
EPA 8276	Decachlorobiphenyl	45.2	P	26 - 97.0
EPA 8276	PCNB	71.3	P	38 - 141

Lab Sample ID: 2169317
Field Sample ID: G2CE0097

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	123	P	72 - 135
EPA 8270E	Simazine-d10	128	P	72 - 135
EPA 8270E	Terbufos-d10	109	P	57 - 134
EPA 8270E	Terbufos-d10	118	P	57 - 134

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A98609

Included Lab Sample IDs: 2169307, 2169309, 2169312, 2169313

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	94.0	94.5	P/P	90 - 110
NO2NO3-N	98.5	96.5	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A98658

Included Lab Sample IDs: 2169307, 2169309, 2169312, 2169313

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

Reference Method: SM 5310 B-2011

Run ID: A98666

Included Lab Sample IDs: 2169307, 2169309, 2169312, 2169313

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.7	96.0	P/P	90 - 110
Organic Carbon	95.8	95.7	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A98668

Included Lab Sample IDs: 2169312, 2169313

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A98669

Included Lab Sample IDs: 2169307, 2169309, 2169312, 2169313

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	99.3	98.6	P/P	90 - 110
Kjeldahl Nitrogen	99.6	99.3	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A98673

Included Lab Sample IDs: 2169307, 2169309

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A98686

Included Lab Sample IDs: 2169306, 2169308, 2169310, 2169311

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.8	101	P/P	90 - 110
Sulfate	101	102	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A98689
Included Lab Sample IDs: 2169315

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	96.3	95.5	P/P	50 - 150
3-Hydroxycarbofuran	97.0	97.1	P/P	60 - 150
Acetaminophen	87.1	93.0	P/P	60 - 160
Acetamiprid	96.6	96.5	P/P	50 - 150
Afidopyropen	91.0	99.8	P/P	50 - 150
Aldicarb	88.5	68.0	P/P	60 - 150
Aldicarb Sulfone	84.2	82.9	P/P	50 - 150
Aldicarb Sulfoxide	83.5	82.5	P/P	50 - 150
Bentazon	87.5	71.0	P/P	50 - 160
Benzovindiflupyr	104	110	P/P	50 - 150
Carbamazepine	96.9	99.6	P/P	60 - 150
Carbaryl	94.2	100	P/P	60 - 150
Carbofuran	106	106	P/P	50 - 150
Clothianidin	90.9	96.0	P/P	60 - 150
Dinotefuran	85.4	87.8	P/P	50 - 150
Diuron	97.3	98.4	P/P	60 - 160
Fenuron	88.9	88.3	P/P	60 - 150
Fluridone	109	110	P/P	60 - 160
Hydrocodone	97.7	107	P/P	60 - 150
Ibuprofen	108	99.0	P/P	50 - 160
Imazapyr	102	98.1	P/P	50 - 150
Imidacloprid	91.7	102	P/P	60 - 150
Linuron	106	105	P/P	60 - 150
Mandestrobin	104	112	P/P	50 - 150
MCPP	98.6	91.9	P/P	50 - 150
Methiocarb	97.1	93.2	P/P	50 - 150
Methomyl	86.9	83.2	P/P	50 - 150
Naproxen	106	134	P/P	50 - 160
Oxamyl	80.3	79.3	P/P	50 - 150
Primidone	94.9	86.1	P/P	60 - 150
Propoxur	101	103	P/P	50 - 150
Pyraclostrobin	113	116	P/P	60 - 150
Thiamethoxam	89.4	96.6	P/P	50 - 150
Tolfenpyrad	98.7	116	P/P	60 - 150
Triclopyr	86.3	96.9	P/P	50 - 150

Reference Method: SM 2320 B-2011
Run ID: A98694
Included Lab Sample IDs: 2169306

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	96.2	95.9	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Run ID: A98694
Included Lab Sample IDs: 2169306, 2169308, 2169310, 2169311

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	102	104	P/P	90 - 110
Fluoride	104	104	P/P	90 - 110
Fluoride	104	106	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A98699
Included Lab Sample IDs: 2169315

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	105	103	P/P	60 - 160
Endothall	101	102	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A98702
Included Lab Sample IDs: 2169315

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	83.3	83.8	P/P	40 - 200
Glufosinate	111	109	P/P	40 - 200
Glyphosate	104	97.0	P/P	40 - 200

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A98721
Included Lab Sample IDs: 2169318

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	96.3	98.0	P/P	90 - 110
Arsenic	98.4	98.0	P/P	90 - 110
Boron	100	103	P/P	90 - 110
Cadmium	96.9	96.1	P/P	90 - 110
Chromium	92.4	93.7	P/P	90 - 110
Copper	92.3	94.2	P/P	90 - 110
Lead	96.1	96.9	P/P	90 - 110
Nickel	92.4	93.3	P/P	90 - 110
Selenium	94.8	95.1	P/P	90 - 110
Silver	94.0	92.9	P/P	90 - 110
Thallium	93.0	93.0	P/P	90 - 110

Reference Method: SM 2320 B-2011
Run ID: A98727
Included Lab Sample IDs: 2169308, 2169310, 2169311

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	97.6	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A98738
Included Lab Sample IDs: 2169318

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Antimony	94.5	96.2	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A98759
Included Lab Sample IDs: 2169316

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	100		P	80 - 120
Alpha-BHC	94.8		P	80 - 120
Alpha-Chlordane	100		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A98759
Included Lab Sample IDs: 2169316

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Beta-BHC	104		P	80 - 120
Beta-Cyfluthrin	84.7		P	80 - 120
Bifenthrin	96.2		P	80 - 120
Chlorothalonil	79.2*		F	80 - 120
Cis-Nonachlor	101		P	80 - 120
Cypermethrin	88.3		P	80 - 120
Dacthal	98.8		P	80 - 120
DDD-p,p'	101		P	80 - 120
DDE-p,p'	99.5		P	80 - 120
DDT-p,p'	99.0		P	80 - 120
Delta-BHC	88.4		P	80 - 120
Dicofol	70.2*		F	80 - 120
Dieldrin	100		P	80 - 120
Endosulfan I	90.7		P	80 - 120
Endosulfan II	91.8		P	80 - 120
Endosulfan Sulfate	92.2		P	80 - 120
Endrin	100		P	80 - 120
Endrin Aldehyde	104		P	80 - 120
Endrin Ketone	95.1		P	80 - 120
Ethalfuralin	98.2		P	80 - 120
Gamma-BHC	99.7		P	80 - 120
Gamma-Chlordane	98.6		P	80 - 120
Heptachlor	98.1		P	80 - 120
Heptachlor Epoxide	100		P	80 - 120
Hexachlorobenzene	101		P	80 - 120
Lambda-Cyhalothrin	82.0		P	80 - 120
Methoxychlor	96.9		P	80 - 120
Mirex	98.3		P	80 - 120
Permethrin	91.6		P	80 - 120
Phenothrin	91.8		P	80 - 120
Prallethrin	96.3		P	80 - 120
Trans-Nonachlor	101		P	80 - 120
Trifluralin	97.0		P	80 - 120

Reference Method: EPA 8276
Run ID: A98760
Included Lab Sample IDs: 2169316

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	105		P	80 - 120
Toxaphene	100		P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A98761
Included Lab Sample IDs: 2169318

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	100	100	P/P	90 - 110
Calcium	103	105	P/P	90 - 110
Iron	106	110	P/P	90 - 110
Magnesium	105	108	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A98761

Included Lab Sample IDs: 2169318

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Potassium	100	103	P/P	90 - 110
Sodium	102	105	P/P	90 - 110
Zinc	98.6	98.9	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A98762

Included Lab Sample IDs: 2169317

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	98.9		P	80 - 120
Alachlor	99.2		P	80 - 120
Ametryn	101		P	80 - 120
Atrazine	97.4		P	80 - 120
Atrazine Desethyl	102		P	80 - 120
Azinphos Methyl	128*		F	80 - 120
Bromacil	101		P	80 - 120
Butylate	91.0		P	80 - 120
Carbophenothion	97.3		P	80 - 120
Chlorpyrifos Ethyl	98.0		P	80 - 120
Chlorpyrifos Methyl	98.2		P	80 - 120
Cyanazine	100		P	80 - 120
Demeton	95.2		P	80 - 120
Diazinon	98.1		P	80 - 120
Dimethenamid	99.1		P	80 - 120
Disulfoton	114		P	80 - 120
Dithiopyr	100		P	80 - 120
EPTC	95.2		P	80 - 120
Ethion	97.2		P	80 - 120
Ethoprop	100		P	80 - 120
Fenamiphos	96.1		P	80 - 120
Fipronil	99.0		P	80 - 120
Fipronil Desulfinyl	103		P	80 - 120
Fipronil Sulfide	98.9		P	80 - 120
Fipronil Sulfone	98.0		P	80 - 120
Flumioxazin	94.6		P	80 - 120
Fonofos	102		P	80 - 120
Hexazinone	101		P	80 - 120
Imazalil	101		P	80 - 120
Malathion	97.6		P	80 - 120
Metaxyl	102		P	80 - 120
Metolachlor	94.7		P	80 - 120
Metribuzin	99.8		P	80 - 120
Mevinphos	101		P	80 - 120
Molinate	95.7		P	80 - 120
Naled	100		P	80 - 120
Norflurazon	100		P	80 - 120
Parathion Ethyl	95.6		P	80 - 120
Parathion Methyl	94.8		P	80 - 120
Pendimethalin	97.2		P	80 - 120
Phorate	98.2		P	80 - 120
Prodiamine	95.8		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A98762
Included Lab Sample IDs: 2169317

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Prometon	98.4		P	80 - 120
Prometryn	98.3		P	80 - 120
Pronamide	97.5		P	80 - 120
Propiconazole	101		P	80 - 120
Simazine	97.4		P	80 - 120
Sulfentrazone	96.5		P	80 - 120
Tebuconazole	103		P	80 - 120
Terbufos	98.9		P	80 - 120
Terbutylazine	97.4		P	80 - 120

Reference Method: EPA 8321B
Run ID: A98790
Included Lab Sample IDs: 2169315

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	101	102	P/P	60 - 160

Reference Method: EPA 8270E
Run ID: A98818
Included Lab Sample IDs: 2169317

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Oxadiazon	103		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 200.7 Rev. 4.4	Barium	97.1		94.6	96.5	92.6			1.87
	Calcium	100		103					0.664
	Iron	102		103	104	98.2			0.391
	Magnesium	101		102	103				0.769
	Potassium	97.5		98.2	97.4	92.9			0.629
	Sodium	99.6		101	99.7				0.133
	Zinc	98.3		94.7	95.6	95.1			1.02
EPA 200.8 Rev. 5.4	Aluminum	91.8		88.8	94.3	95.1			0.712
	Antimony	95.9		99.0	96.3	98.3			2.03
	Arsenic	97.3		99.4	96.1	99.1			3.03
	Boron	94.7		96.0	98.6	97.3			1.15
	Cadmium	95.8		97.0	95.5	98.9			3.49
	Chromium	92.3		97.2	96.2	99.1			2.78
	Copper	92.5		92.0	95.9	93.3			2.75
	Lead	93.1		95.0	94.0	95.3			1.35
	Nickel	91.3		93.2	92.5	93.7			1.31
	Selenium	91.8		92.3	90.2	92.4			2.41
	Silver	95.5		93.6	93.8	95.1			1.35
	Thallium	95.6		99.6	97.7	101			3.08
EPA 300.0 Rev. 2.1	Chloride	103		98.6	103			0.681	
	Sulfate	103		98.5	103			0.408	
EPA 350.1 Rev. 2.0	Ammonia-N	100		99.9	101				0.616
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	97.8		98.1	97.7				0.214
EPA 353.2 Rev. 2.0	NO2NO3-N	96.5		95.5	97.0				1.56
EPA 365.1 Rev. 2.0	Total-P	105		103	104				1.67
EPA 8270E	Acetochlor	109	98.3	94.6	95.8		9.88		1.23
	Alachlor	106	97.5	94.5	99.6		8.70		5.26
	Aldrin	40.3	39.6	67.5	70.2		1.72		3.94
	Alpha-BHC	95.0	87.8	103	106		7.82		3.58
	Alpha-Chlordane	90.0	87.2	88.4	93.9		3.23		5.99
	Ametryn	114	111	125	111		2.59		11.5
	Atrazine	116	109	102	113		6.65		2.30
	Atrazine Desethyl	80.6	77.4	103	95.3		3.99		7.83
	Azinphos Methyl	153	116	159	159		27.5		0.357
	Beta-BHC	105	109	116	113		4.22		2.71
	Beta-Cyfluthrin	110	113	154	163		2.35		5.72
	Bifenthrin	86.8	86.1	97.8	105		0.807		6.68
	Bromacil	100	88.5	102	101		12.7		0.312
	Butylate	75.8	69.7	63.3	74.5		8.42		16.3
	Carbophenothion	93.4	90.1	82.7	81.5		3.60		1.49
	Chlorothalonil	157	128	235	284		20.5		18.8
	Chlorpyrifos Ethyl	101	95.8	88.5	94.6		4.96		6.65
	Chlorpyrifos Methyl	95.3	87.6	94.8	95.7		8.38		0.971
	Cis-Nonachlor	96.6	90.9	95.0	103		6.05		8.44
	Cyanazine	129	114	132	131		12.8		0.583
	Cypermethrin	100	91.9	128	134		8.94		5.07
	Dacthal	95.7	93.1	95.7	99.0		2.70		3.35
	DDD-p,p'	108	96.9	103	109		10.7		6.13
	DDE-p,p'	87.1	91.5	84.0	85.9		4.90		2.27
	DDT-p,p'	86.8	87.1	84.2	81.3		0.274		3.49
	Delta-BHC	129	105	182	196		20.0		7.11
	Demeton	78.5	74.7	119	117		4.95		1.68
	Diazinon	110	97.6	109	107		12.0		1.86
	Dicofol	132	115	137	125		14.0		8.98

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270E	Dieldrin	97.1	94.5	94.6	98.8	2.75		4.41
	Dimethenamid	106	98.9	90.3	92.2	6.99		2.09
	Disulfoton	78.1	74.6	85.1	111	4.56		26.1
	Dithiopyr	104	96.6	81.4	84.3	7.71		3.31
	Endosulfan I	105	105	118	119	0.292		0.881
	Endosulfan II	113	113	124	141	0.718		12.5
	Endosulfan Sulfate	118	95.2	124	141	21.1		12.9
	Endrin	97.2	97.1	98.0	103	0.0855		5.22
	Endrin Aldehyde	109	110	82.2	82.7	0.442		0.618
	Endrin Ketone	110	102	118	124	7.64		5.33
	EPTC	85.4	77.2	84.2	79.9	10.2		5.18
	Ethalfuralin	80.8	79.7	82.0	79.4	1.32		3.28
	Ethion	103	95.1	88.8	82.7	7.54		7.17
	Ethoprop	105	96.8	139	141	7.85		1.38
	Fenamiphos	98.2	92.1	76.1	77.3	6.41		1.65
	Fipronil	106	99.4	92.8	92.4	6.32		0.446
	Fipronil Desulfinyl	113	104	94.7	91.4	7.83		3.26
	Fipronil Sulfide	94.3	91.9	84.5	83.2	2.54		1.21
	Fipronil Sulfone	90.7	89.5	71.5	71.0	1.32		0.338
	Flumioxazin	159	136	200	207	15.9		3.65
	Fonofos	91.6	80.6	114	106	12.8		7.30
	Gamma-BHC	109	99.7	121	127	8.92		4.97
	Gamma-Chlordane	83.2	83.1	84.4	88.5	0.106		4.71
	Heptachlor	74.8	72.7	73.5	80.7	2.83		9.36
	Heptachlor Epoxide	92.2	90.7	91.0	96.1	1.66		5.43
	Hexachlorobenzene	76.5	75.3	78.8	76.8	1.63		2.56
	Hexazinone	128	111	118	123	14.2		3.79
	Imazalil	94.0	102	83.8	89.6	8.18		6.71
	Lambda-Cyhalothrin	113	114	169	183	0.540		7.93
	Malathion	112	105	105	106	6.21		1.11
	Metalaxyl	111	103	98.1	95.8	7.93		2.32
	Methoxychlor	93.1	96.1	91.6	89.4	3.21		2.41
	Metolachlor	99.0	92.0	83.3	82.8	7.35		0.604
	Metribuzin	104	105	143	142	0.791		0.973
	Mevinphos	90.6	85.5	131	131	5.82		0.483
	Mirex	66.9	67.6	75.8	76.4	0.946		0.696
	Molinate	91.3	82.3	87.5	95.7	10.4		8.97
	Naled	71.4	64.6	81.5	72.7	9.93		11.4
	Norflurazon	102	95.5	83.5	84.3	6.13		0.978
	Oxadiazon	106	91.1			15.0		
	Parathion Ethyl	110	98.3	111	111	11.2		0.180
	Parathion Methyl	106	97.7	132	135	8.44		2.25
	Pendimethalin	95.7	85.2	107	105	11.6		1.46
	Permethrin	82.2	81.6	91.6	92.1	0.769		0.570
	Phenothrin	45.8	45.9	87.3	89.5	0.205		2.45
	Phorate	92.9	85.9	121	115	7.83		4.88
	Prallethrin	55.9	48.3	84.7	90.8	14.5		6.94
	Prodiamine	76.3	73.1	37.8	33.0	4.32		13.6
	Prometon	105	96.6	93.1	93.0	8.14		0.0734
	Prometryn	110	99.3	98.8	92.2	10.1		6.91
	Pronamide	118	108	148	150	9.04		1.31
	Propiconazole	102	99.7	83.7	84.8	2.11		1.00
	Simazine	123	111	152	146	10.7		3.85
	Sulfentrazone	88.8	90.4	75.8	72.0	1.82		5.14

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Tebuconazole	65.4	71.4	33.2	33.3	8.79	0.298
	Terbufos	98.4	86.3	123	123	13.2	0.0356
	Terbuthylazine	108	102	105	106	5.40	1.67
	Trans-Nonachlor	88.6	86.7	87.7	92.6	2.21	5.51
	Trifluralin	80.6	80.5	83.1	82.4	0.0437	0.840
EPA 8276	Chlordane	88.4	90.1	96.9	95.0	1.88	1.85
	Toxaphene	78.6	77.6	72.2	71.7	1.32	0.667
EPA 8321B	2,4-D	115		119	111		5.17
	3-Hydroxycarbofuran	91.3		75.5	79.3		4.94
	Acesulfame K	102		18.8	18.0		4.28
	Acetaminophen	66.6		101	88.6		12.7
	Acetamiprid	94.2		90.9	81.2		11.2
	Afidopyropen	92.7		110	96.1		13.5
	Aldicarb	64.8		42.8	50.2		16.0
	Aldicarb Sulfone	75.5		88.9	87.9		1.11
	Aldicarb Sulfoxide	82.2		27.5	26.0		5.65
	AMPA	88.5		59.9	56.5		3.91
	Bentazon	54.3					6.74
	Benzovindiflupyr	78.1		87.2	75.0		15.1
	Carbamazepine	110		91.1	80.7		12.1
	Carbaryl	71.0		56.6	57.9		2.17
	Carbofuran	57.0		40.6	39.2		3.45
	Clothianidin	79.8		82.2	78.3		4.66
	Dinotefuran	71.5		92.8	92.5		0.228
	Diuron	94.1		96.4	83.4		14.4
	Endothall	92.0		98.6	111		11.7
	Fenuron	100		66.4	58.8		12.1
	Fluridone	82.1		89.5	73.5		15.7
	Glufosinate	101		93.7	89.1		5.02
	Glyphosate	95.7		100	84.2		15.5
	Hydrocodone	82.5		86.6	76.6		12.3
	Ibuprofen	72.8		73.9	63.1		15.8
	Imazapyr	73.8		110	89.1		15.7
	Imidacloprid	107		144	125		13.4
	Linuron	64.4		66.7	53.9		21.3
	Mandestrobin	80.0		91.1	78.4		15.0
	MCPP	124		127	111		13.9
	Methiocarb	59.5		54.4	49.1		10.2
	Methomyl	73.5		55.6	58.4		4.89
	Naproxen	69.1		80.9	66.9		19.0
	Oxamyl	75.5		72.3	65.7		9.53
	Primidone	91.9		82.2	70.3		15.6
	Propoxur	55.3		38.2	36.0		5.95
	Pyraclostrobin	77.8		90.5	80.8		11.3
	Sucralose	99.4		87.1	95.5		9.15
	Thiamethoxam	90.2		116	100		13.4
	Tolfenpyrad	52.5		60.3	51.6		15.6
	Triclopyr	98.0		118	102		14.2
SM 2320 B-2011	Total Alkalinity	97.8				5.14	
	Total Alkalinity	99.0				0.372	
SM 2540 C-2011	TDS					3.10	
	TDS					3.94	
SM 4500 F-C-2011	Fluoride	102		100	99.5		0.508
SM 5310 B-2011	Organic Carbon	97.5		97.2	95.1		1.18

Reference Method Descriptions

Method	Description	Associated Samples
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2169318
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2169318
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2169306, 2169308, 2169310, 2169311
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2169306, 2169308, 2169310, 2169311
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2169307, 2169309, 2169312, 2169313
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2169307, 2169309, 2169312, 2169313
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2169307, 2169309, 2169312, 2169313
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2169307, 2169309, 2169312, 2169313
EPA 8270E	Organochlorine pesticides in water matrices by GC/MS-SIM	2169316
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2169317
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2169316
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2169314
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2169315
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2169315
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2169306, 2169308, 2169310, 2169311
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2169318
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2169306, 2169308, 2169310, 2169311
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2169306, 2169308, 2169310, 2169311
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2169306, 2169308, 2169310, 2169311
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2169307, 2169309, 2169312, 2169313

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 200.7 Rev. 4.4	04/02/2020	04/08/2020 16:30	Alexander Thompson	04/13/2020 13:48	Betina Topolski	2169318
EPA 200.8 Rev. 5.4	04/02/2020	04/08/2020 16:30	Alexander Thompson	04/10/2020 03:15	Alexander Thompson	2169318
EPA 300.0 Rev. 2.1	04/02/2020	04/08/2020 16:30	Alexander Thompson	04/10/2020 20:03	Alexander Thompson	2169318
	04/02/2020			04/09/2020 17:52	Jhamieka S. Greenwood	2169306
	04/02/2020			04/09/2020 18:05	Jhamieka S. Greenwood	2169308
	04/02/2020			04/09/2020 18:18	Jhamieka S. Greenwood	2169310
EPA 350.1 Rev. 2.0	04/02/2020			04/09/2020 18:31	Jhamieka S. Greenwood	2169311
	04/02/2020			04/04/2020 11:39	Ping Hua	2169307
	04/02/2020			04/04/2020 11:40	Ping Hua	2169309
	04/02/2020			04/04/2020 11:42	Ping Hua	2169312
EPA 351.2 Rev. 2.0	04/02/2020			04/04/2020 11:43	Ping Hua	2169313
	04/02/2020	04/03/2020 09:10	Sima Feizi	04/06/2020 09:53	Jhamieka S. Greenwood	2169307
	04/02/2020	04/03/2020 09:10	Sima Feizi	04/06/2020 10:10	Jhamieka S. Greenwood	2169309
	04/02/2020	04/03/2020 09:10	Sima Feizi	04/06/2020 10:11	Jhamieka S. Greenwood	2169312
EPA 353.2 Rev. 2.0	04/02/2020	04/03/2020 09:10	Sima Feizi	04/06/2020 10:13	Jhamieka S. Greenwood	2169313
	04/02/2020			04/02/2020 14:52	Lauren Lees	2169309
	04/02/2020			04/02/2020 14:53	Lauren Lees	2169312
	04/02/2020			04/02/2020 14:54	Lauren Lees	2169313
EPA 365.1 Rev. 2.0	04/02/2020			04/02/2020 16:50	Lauren Lees	2169307
	04/02/2020	04/03/2020 14:45	Yen Ta	04/06/2020 09:06	Lipi Saha	2169312
	04/02/2020	04/03/2020 14:45	Yen Ta	04/06/2020 09:07	Lipi Saha	2169313
	04/02/2020	04/03/2020 14:45	Yen Ta	04/06/2020 14:50	Lipi Saha	2169307
EPA 8270E	04/02/2020	04/03/2020 14:45	Yen Ta	04/06/2020 14:51	Lipi Saha	2169309
	04/02/2020	04/06/2020 08:30	Rasheda Ghaffari	04/08/2020 21:22	Michael Poppell	2169316
	04/02/2020	04/07/2020 08:00	Fe-Val Siddell	04/09/2020 21:12	Marek Topolski	2169317
	04/02/2020	04/15/2020 09:30	Rasheda Ghaffari	04/16/2020 17:55	Marek Topolski	2169317
EPA 8276	04/02/2020	04/06/2020 08:30	Rasheda Ghaffari	04/14/2020 07:06	Arthur Maknenko	2169316
EPA 8321B	04/02/2020	04/03/2020 11:30	Rebecca Ware	04/03/2020 14:52	Rebecca Ware	2169315
	04/02/2020	04/03/2020 11:30	Rebecca Ware	04/06/2020 17:05	Rebecca Ware	2169315
	04/02/2020	04/03/2020 11:30	Rebecca Ware	04/14/2020 20:49	Rebecca Ware	2169315
	04/02/2020	04/06/2020 09:00	Hoor Shaik	04/08/2020 08:29	Juyoung Kim	2169314
SM 2320 B-2011	04/02/2020	04/06/2020 09:00	Hoor Shaik	04/08/2020 14:16	Juyoung Kim	2169315
	04/02/2020			04/06/2020 22:08	Samantha Davila	2169306
	04/02/2020			04/10/2020 03:24	Samantha Davila	2169308
	04/02/2020			04/10/2020 03:34	Samantha Davila	2169310
SM 2340B	04/02/2020			04/10/2020 03:44	Samantha Davila	2169311
SM 2540 C-2011	04/02/2020			04/13/2020 13:48	Betina Topolski	2169318
SM 2540 D-2011	04/02/2020			04/03/2020 14:49	Yijie Li	2169306, 2169308, 2169310, 2169311
SM 4500 F-C-2011	04/02/2020			04/03/2020 14:49	Yijie Li	2169306, 2169308, 2169310, 2169311
	04/02/2020			04/06/2020 21:58	Samantha Davila	2169306

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 4500 F-C-2011	04/02/2020			04/07/2020 00:39	Samantha Davila	2169308
	04/02/2020			04/07/2020 00:51	Samantha Davila	2169310
	04/02/2020			04/07/2020 03:19	Samantha Davila	2169311
SM 5310 B-2011	04/02/2020			04/03/2020 10:13	Madeline Gruver	2169307
	04/02/2020			04/03/2020 11:45	Madeline Gruver	2169309
	04/02/2020			04/03/2020 11:58	Madeline Gruver	2169312
	04/02/2020			04/04/2020 12:11	Madeline Gruver	2169313