

Chemical Analysis Report

NE-DIST-2020-06-12-01

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

Event Description: **LSJR North 2020**
Request ID: **RQ-2020-04-13-56**
Customer: **NE-DIST**
Project ID: **SMP**

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

Date Certified: 07-JUL-2020 12:36



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: Long BR at Evergreen Ave.

Collection Date/Time: 06/11/2020 09:40

Field ID: G2NE0735

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2176090	EPA 180.1 Rev. 2.0	Turbidity	6.4		NTU	P383156	
	EPA 300.0 Rev. 2.1	Bromide	0.082		mg Br/L	P383319	
	SM 2320 B-2011	Total Alkalinity	112	A	mg CaCO3/L	P383248	
	SM 2540 D-2011	TSS	3	I	mg/L	P383521	
	SM 4500 F-C-2011	Fluoride	0.15		mg F/L	P383251	
2176091	EPA 350.1 Rev. 2.0	Ammonia-N	0.11		mg N/L	P383179	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.44		mg N/L	P383361	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.22		mg N/L	P383206	
	EPA 365.1 Rev. 2.0	Total-P	0.068		mg P/L	P383231	
	SM 5310 B-2011	Organic Carbon	7.0		mg C/L	P383311	
2176092	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.026		mg P/L	P383165	
2176100	EPA 8321B	2,4-D	0.037		ug/L	P383083	
		Acesulfame K**	0.10	U	ug/L	P383201	MS
		AMPA**	0.54		ug/L	P383201	
		Sucralose**	0.14		ug/L	P383201	
		Acetaminophen**	0.024	I	ug/L	P383083	
		Acetamiprid**	0.0020	U	ug/L	P383083	
		Endothall**	0.25	U	ug/L	P383201	MS
		Glufosinate**	0.10	U	ug/L	P383201	
		Glyphosate**	0.22	I	ug/L	P383201	
		Afidopyropen**	0.0020	U	ug/L	P383083	
		Bentazon	0.0044		ug/L	P383083	
		Benzovindiflupyr**	0.0020	U	ug/L	P383083	
		Carbamazepine**	8.0E-04	U	ug/L	P383083	
		Clothianidin**	0.0067	I	ug/L	P383083	
		Dinotefuran**	0.0056	I	ug/L	P383083	
		Diuron	0.0020	U	ug/L	P383083	
		Fenuron	0.016	U	ug/L	P383083	
		Fluridone**	8.0E-04	U	ug/L	P383083	
		Imazapyr**	0.060		ug/L	P383083	
		Hydrocodone**	0.0020	U	ug/L	P383083	
		Ibuprofen**	0.020	U	ug/L	P383083	
		Imidacloprid	0.0094		ug/L	P383083	
		Linuron	0.0040	U	ug/L	P383083	
		Mandestrobin**	0.0020	U	ug/L	P383083	
		MCP	0.0020	U	ug/L	P383083	
		Naproxen**	0.0080	U	ug/L	P383083	
		Primidone**	0.0040	U	ug/L	P383083	
		Pyraclostrobin**	0.0020	U	ug/L	P383083	
		Thiamethoxam**	0.0020	U	ug/L	P383083	
		Tolfenpyrad**	0.0020	U	ug/L	P383083	
		Triclopyr**	0.0040	U	ug/L	P383083	
2176105	EPA 200.7 Rev. 4.4	Iron	1.27E+03		ug/L	P383291	

Field ID: G2NE0735

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2176105	EPA 200.7 Rev. 4.4	Manganese	39.7		ug/L	P383291	
		Zinc	12	I	ug/L	P383291	
	EPA 200.8 Rev. 5.4	Aluminum	42		ug/L	P383291	
		Antimony	0.26		ug/L	P383291	
		Arsenic	1.18		ug/L	P383291	
		Cadmium	0.034	I	ug/L	P383744	
		Chromium	0.40	U	ug/L	P383291	
		Copper	1.02		ug/L	P383291	
		Lead	0.53		ug/L	P383744	
		Nickel	0.79	I	ug/L	P383291	
		Selenium	0.32	I	ug/L	P383291	
		Silver	0.010	U	ug/L	P383291	
		Thallium	0.10	U	ug/L	P383744	

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

Sample Location: Blockhouse 100m abv Irma Rd.

Collection Date/Time: 06/11/2020 10:15

Field ID: G2NE1159

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2176093	EPA 180.1 Rev. 2.0	Turbidity	22		NTU	P383156	
	EPA 300.0 Rev. 2.1	Chloride	17		mg Cl/L	P383380	
		Sulfate	9.5		mg SO4/L	P383384	
	SM 2120 B-2011	Color (true)	190	A	PCU	P383161	
	SM 2320 B-2011	Total Alkalinity	47		mg CaCO3/L	P383248	
	SM 2540 C-2011	TDS	143		mg/L	P383569	
	SM 2540 D-2011	TSS	13		mg/L	P383520	
	SM 4500 F-C-2011	Fluoride	0.10		mg F/L	P383251	
2176094	EPA 350.1 Rev. 2.0	Ammonia-N	0.082		mg N/L	P383179	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P383361	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.048		mg N/L	P383206	
	EPA 365.1 Rev. 2.0	Total-P	0.18		mg P/L	P383231	
	SM 5310 B-2011	Organic Carbon	22		mg C/L	P383311	
2176095	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.074		mg P/L	P383165	
2176101	EPA 8321B	Aldicarb	0.020	U	ug/L	P383083	MS
		Aldicarb Sulfone	0.0020	U	ug/L	P383083	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P383083	
		Carbaryl	0.0020	U	ug/L	P383083	
		Carbofuran	0.0020	U	ug/L	P383083	MS
		3-Hydroxycarbofuran	0.0020	U	ug/L	P383083	
		Methiocarb	0.0020	U	ug/L	P383083	
		Methomyl	0.0020	U	ug/L	P383083	
		Oxamyl	0.0020	U	ug/L	P383083	
		Propoxur	0.0020	U	ug/L	P383083	
2176102		2,4-D	3.7		ug/L	P383083	
		Acesulfame K**	0.10	U	ug/L	P383201	MS
		AMPA**	0.39	I	ug/L	P383201	
		Sucralose**	0.10		ug/L	P383201	
		Acetaminophen**	0.0080	U	ug/L	P383083	
		Acetamiprid**	0.0020	U	ug/L	P383083	
		Endothal**	0.25	U	ug/L	P383201	MS
		Glufosinate**	0.10	U	ug/L	P383201	
		Glyphosate**	1.0		ug/L	P383201	
		Afidopyropen**	0.0020	U	ug/L	P383083	
		Bentazon	0.012		ug/L	P383083	
		Benzovindiflupyr**	0.0020	U	ug/L	P383083	
		Carbamazepine**	0.0042		ug/L	P383083	
		Clothianidin**	0.036		ug/L	P383083	
		Dinotefuran**	0.0020	U	ug/L	P383083	
		Diuron	0.0031	I	ug/L	P383083	
		Fenuron	0.016	U	ug/L	P383083	
		Fluridone**	8.0E-04	U	ug/L	P383083	
		Imazapyr**	0.37		ug/L	P383083	

Field ID: G2NE1159

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2176102	EPA 8321B	Hydrocodone**	0.0020	U	ug/L	P383083	
		Ibuprofen**	0.020	U	ug/L	P383083	
		Imidacloprid	0.033		ug/L	P383083	
		Linuron	0.0040	U	ug/L	P383083	
		Mandestrobin**	0.0020	U	ug/L	P383083	
		MCP	0.022		ug/L	P383083	
		Naproxen**	0.0080	U	ug/L	P383083	
		Primidone**	0.0040	U	ug/L	P383083	
		Pyraclostrobin**	0.0020	U	ug/L	P383083	
		Thiamethoxam**	0.018		ug/L	P383083	
		Tolfenpyrad**	0.0020	U	ug/L	P383083	
		Triclopyr**	0.0040	U	ug/L	P383083	
2176103	EPA 8270E	Aldrin	4.3	U	ng/L	P383183	
		Alpha-BHC	2.1	U	ng/L	P383183	
		Alpha-Chlordane	1.1	U	ng/L	P383183	
		Beta-BHC	11	U	ng/L	P383183	
		Beta-Cyfluthrin**	16	U	ng/L	P383183	
		Bifenthrin**	4.3	U	ng/L	P383183	
		Delta-BHC	8.5	U	ng/L	P383183	
		Gamma-BHC	8.5	U	ng/L	P383183	
		Chlorothalonil	2.1	U	ng/L	P383183	
		Cis-Nonachlor**	1.1	U	ng/L	P383183	
		Cypermethrin	21	U	ng/L	P383183	
		Dacthal**	1.1	U	ng/L	P383183	
		DDD-p,p'	6.4	U	ng/L	P383183	
		DDE-p,p'	6.4	U	ng/L	P383183	
		DDT-p,p'	7.5	U	ng/L	P383183	
		Dicofol	32	U	ng/L	P383183	
		Dieldrin	4.3	U	ng/L	P383183	
		Endosulfan I	4.3	U	ng/L	P383183	
		Endosulfan II	4.3	U	ng/L	P383183	
		Endosulfan Sulfate	2.1	U	ng/L	P383183	
		Endrin	2.1	U	ng/L	P383183	
		Endrin Aldehyde	2.1	U	ng/L	P383183	
		Endrin Ketone	2.1	U	ng/L	P383183	
		Ethalfuralin**	3.2	U	ng/L	P383183	
		Gamma-Chlordane	1.1	U	ng/L	P383183	
		Heptachlor	1.6	U	ng/L	P383183	
		Heptachlor Epoxide	2.1	U	ng/L	P383183	
		Hexachlorobenzene	2.1	U	ng/L	P383183	
		Lambda-Cyhalothrin**	16	U	ng/L	P383183	
		Methoxychlor	4.3	U	ng/L	P383183	
		Mirex	2.1	U	ng/L	P383183	
		Permethrin	11	U	ng/L	P383183	
		Phenothrin**	32	U	ng/L	P383183	
							RPD

Field ID: G2NE1159

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2176103	EPA 8270E	Prallethrin**	32	U	ng/L	P383183	
		Trans-Nonachlor**	1.1	U	ng/L	P383183	
		Trifluralin	2.7	U	ng/L	P383183	
		Chlordane	7.8	I	ng/L	P383183	
		Toxaphene	32	U	ng/L	P383183	
2176104	EPA 8270E	Acetochlor	0.24	U	ng/L	P383109	
		Alachlor	0.24	U	ng/L	P383109	
		Ametryn	3.5		ng/L	P383109	
		Atrazine	670		ng/L	P383109	
		Atrazine Desethyl	55		ng/L	P383109	
		Azinphos Methyl	1.9	U	ng/L	P383109	
		Bromacil	1.8	I	ng/L	P383109	
		Butylate	0.39	U	ng/L	P383109	RPD
		Carbophenothion	0.49	U	ng/L	P383109	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P383109	
		Chlorpyrifos Methyl	0.049	U	ng/L	P383109	
		Cyanazine	3.2	UJ	ng/L	P383109	CCV, RPD
		Demeton	1.5	U	ng/L	P383109	RPD
		Diazinon	0.12	U	ng/L	P383109	
		Dimethenamid**	0.097	U	ng/L	P383109	
		Disulfoton	0.49	U	ng/L	P383109	
		Dithiopyr**	0.44		ng/L	P383109	
		EPTC	1.2	U	ng/L	P383109	RPD
		Ethion	0.15	U	ng/L	P383109	
		Ethoprop	0.097	U	ng/L	P383109	
		Fenamiphos	0.49	U	ng/L	P383109	
		Fipronil	2.7		ng/L	P383109	
		Fipronil Desulfinyl**	2.3		ng/L	P383109	
		Fipronil Sulfide	1.8		ng/L	P383109	
		Fipronil Sulfone	4.0		ng/L	P383109	
		Flumioxazin**	1.7	U	ng/L	P383109	
		Fonofos	0.19	U	ng/L	P383109	
		Hexazinone	0.49	U	ng/L	P383109	
		Imazalil**	0.73	UJ	ng/L	P383109	LCS, RPD
		Malathion	0.34	U	ng/L	P383109	
		Metalaxyl	1.7	I	ng/L	P383109	
		Metolachlor	1.4	I	ng/L	P383109	
		Metribuzin	3.2	U	ng/L	P383109	
		Mevinphos	0.49	U	ng/L	P383109	
		Molinate	0.29	U	ng/L	P383109	RPD
		Naled**	1.5	U	ng/L	P383109	
		Norflurazon	0.49	U	ng/L	P383109	
		Oxadiazon**	3.3		ng/L	P383109	
		Parathion Ethyl	0.24	U	ng/L	P383109	
		Parathion Methyl	0.54	U	ng/L	P383109	

Field ID: G2NE1159

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2176104	EPA 8270E	Pendimethalin	0.97	U	ng/L	P383109	
		Phorate	0.24	U	ng/L	P383109	
		Prodiamine**	0.47	I	ng/L	P383109	RPD
		Prometon	1.2	I	ng/L	P383109	
		Prometryn	0.19	U	ng/L	P383109	
		Pronamide**	0.15	U	ng/L	P383109	
		Propiconazole**	5.0		ng/L	P383109	
		Simazine	35		ng/L	P383109	
		Sulfentrazone**	2.8		ng/L	P383109	
		Tebuconazole**	3.4	J	ng/L	P383109	RPD
		Terbufos	0.097	U	ng/L	P383109	
		Terbuthylazine	0.41	U	ng/L	P383109	
2176106	EPA 200.7 Rev. 4.4	Barium	33.1		ug/L	P383291	
		Calcium	19.5		mg/L	P383291	
		Iron	2.43E+03		ug/L	P383291	
		Magnesium	3.89		mg/L	P383291	
		Potassium	2.2		mg/L	P383291	
		Sodium	11.2		mg/L	P383291	
		Zinc	14	I	ug/L	P383291	
	EPA 200.8 Rev. 5.4	Aluminum	810		ug/L	P383291	
		Antimony	0.13	I	ug/L	P383291	
		Arsenic	1.42		ug/L	P383291	
		Boron**	25.1		ug/L	P383291	
		Cadmium	0.030	I	ug/L	P383744	
		Chromium	1.2	I	ug/L	P383291	
		Copper	1.98		ug/L	P383291	
		Lead	1.19		ug/L	P383744	
		Nickel	1.1	I	ug/L	P383291	
		Selenium	0.21	I	ug/L	P383291	
		Silver	0.014	I	ug/L	P383291	
		Thallium	0.10	U	ug/L	P383744	
		Hardness	64.7		mg/L	P383291	

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: MS accuracy for bentazon and imazapyr could not be assessed due to high concentration of parameter in the spiked sample. The surrogate 2,4-D-d3 recovery could not be assessed due to an elevated level of 2,4-D in the sample matrix.

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P383156

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P383291

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

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P383291

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
Chromium	0.40	U	ug/L
Copper	0.40	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P383744

Component	Result	Code	Units
Cadmium	0.020	U	ug/L
Lead	0.20	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P383319

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P383380

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P383384

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P383179

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P383361

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P383206

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P383231

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P383165

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

Reference Method: EPA 8270E
Batch ID: P383109

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E
 Batch ID: P383109

Component	Result	Code	Units
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
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
Terbuthylazine	0.42	U	ng/L

Reference Method: EPA 8270E
 Batch ID: P383183

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P383183

Component	Result	Code	Units
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

Reference Method: EPA 8276
Batch ID: P383183

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

Reference Method: EPA 8321B
Batch ID: P383083

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P383083

Component	Result	Code	Units
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

Reference Method: EPA 8321B
Batch ID: P383201

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 2120 B-2011
Batch ID: P383161

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P383248

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

Reference Method: SM 2540 C-2011
Batch ID: P383569

Component	Result	Code	Units
TDS	15	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 D-2011
Batch ID: P383520

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P383521

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P383251

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P383311

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: P383291

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	102		P	85 - 115
Calcium	103		P	85 - 115
Iron	101		P	85 - 115
Magnesium	102		P	85 - 115
Manganese	102		P	85 - 115
Potassium	98.1		P	85 - 115
Sodium	99.1		P	85 - 115
Zinc	104		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P383291

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	95.7		P	85 - 115
Antimony	97.1		P	85 - 115
Arsenic	97.3		P	85 - 115
Boron	98.8		P	85 - 115
Chromium	99.8		P	85 - 115
Copper	97.6		P	85 - 115
Nickel	98.2		P	85 - 115
Selenium	94.2		P	85 - 115
Silver	99.3		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P383744

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Cadmium	98.0		P	85 - 115
Lead	96.1		P	85 - 115
Thallium	101		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P383319

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P383380

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P383384

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P383179

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

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P383361

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

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P383206

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P383231

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: P383165

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

Reference Method: EPA 8270E
 Batch ID: P383109

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	98.7	95.4	P/P	71 - 122
Alachlor	95.7	95.0	P/P	70 - 121
Ametryn	115	119	P/P	49 - 137
Atrazine	101	99.2	P/P	76 - 125
Atrazine Desethyl	65.1	82.6	P/P	31 - 144
Azinphos Methyl	100	118	P/P	67 - 150
Bromacil	89.4	98.3	P/P	36 - 121
Butylate	65.7	84.8	P/P	33 - 88.0
Carbophenothion	96.7	96.4	P/P	50 - 150
Chlorpyrifos Ethyl	91.2	96.1	P/P	73 - 117
Chlorpyrifos Methyl	87.8	99.8	P/P	68 - 121
Cyanazine	76.4	109	P/P	20 - 250
Demeton	76.8	77.4	P/P	30 - 123
Diazinon	90.8	90.2	P/P	70 - 128
Dimethenamid	95.0	96.5	P/P	66 - 122
Disulfoton	76.8	82.7	P/P	46 - 124
Dithiopyr	91.2	90.1	P/P	69 - 122
EPTC	56.6	68.8	P/P	31 - 90.0
Ethion	103	94.4	P/P	45 - 135
Ethoprop	93.1	96.7	P/P	59 - 118
Fenamiphos	86.0	90.9	P/P	30 - 136
Fipronil	92.0	101	P/P	57 - 127

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P383109

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fipronil Desulfinyl	97.2	94.5	P/P	51 - 122
Fipronil Sulfide	94.3	94.6	P/P	57 - 119
Fipronil Sulfone	95.8	87.3	P/P	51 - 119
Flumioxazin	100	83.5	P/P	70 - 200
Fonofos	79.3	88.9	P/P	60 - 120
Hexazinone	102	101	P/P	57 - 142
Imazalil	46.3	29.9	F/F	50 - 150
Malathion	105	106	P/P	67 - 128
Metalaxyl	65.5	87.1	P/P	21 - 148
Metolachlor	97.1	95.2	P/P	70 - 120
Metribuzin	83.0	111	P/P	20 - 253
Mevinphos	92.6	97.1	P/P	47 - 116
Molinate	65.4	76.8	P/P	41 - 99.0
Naled	62.0	61.9	P/P	40 - 130
Norflurazon	100	94.6	P/P	54 - 127
Oxadiazon	87.3	84.2	P/P	65 - 122
Parathion Ethyl	101	97.8	P/P	71 - 113
Parathion Methyl	122	124	P/P	73 - 129
Pendimethalin	77.2	93.6	P/P	63 - 130
Phorate	63.8	75.8	P/P	48 - 118
Prodiamine	75.0	84.3	P/P	20 - 144
Prometon	108	103	P/P	53 - 120
Prometryn	104	114	P/P	63 - 119
Pronamide	105	105	P/P	50 - 150
Propiconazole	101	101	P/P	50 - 150
Simazine	103	99.8	P/P	77 - 129
Sulfentrazone	74.8	75.2	P/P	50 - 150
Tebuconazole	89.9	63.6	P/P	20 - 118
Terbufos	80.3	91.3	P/P	61 - 119
Terbutylazine	99.4	95.4	P/P	75 - 119

Reference Method: EPA 8270E
Batch ID: P383183

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	57.6	57.2	P/P	20 - 87.0
Alpha-BHC	90.9	91.9	P/P	65 - 142
Alpha-Chlordane	90.0	91.2	P/P	58 - 106
Beta-BHC	96.8	100	P/P	65 - 179
Beta-Cyfluthrin	102	104	P/P	39 - 153
Bifenthrin	90.4	89.7	P/P	38 - 128
Chlorothalonil	115	96.5	P/P	20 - 214
Cis-Nonachlor	88.9	91.4	P/P	56 - 113
Cypermethrin	92.4	98.5	P/P	37 - 130
Dacthal	95.6	98.0	P/P	75 - 109
DDD-p,p'	98.1	101	P/P	66 - 119
DDE-p,p'	85.7	86.5	P/P	53 - 108
DDT-p,p'	88.3	87.9	P/P	57 - 133
Delta-BHC	130	127	P/P	68 - 187
Dicofol	83.6	80.8	P/P	66 - 123
Dieldrin	96.0	99.7	P/P	65 - 111
Endosulfan I	100	101	P/P	65 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P383183

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Endosulfan II	107	106	P/P	68 - 133
Endosulfan Sulfate	99.5	96.8	P/P	62 - 127
Endrin	98.4	99.8	P/P	64 - 122
Endrin Aldehyde	116	117	P/P	61 - 132
Endrin Ketone	96.8	97.7	P/P	66 - 120
Ethalfuralin	79.7	78.2	P/P	57 - 127
Gamma-BHC	104	105	P/P	71 - 158
Gamma-Chlordane	84.1	85.3	P/P	53 - 106
Heptachlor	76.4	78.0	P/P	45 - 96.0
Heptachlor Epoxide	93.6	95.4	P/P	64 - 109
Hexachlorobenzene	75.0	73.8	P/P	46 - 103
Lambda-Cyhalothrin	95.4	95.0	P/P	38 - 145
Methoxychlor	103	104	P/P	69 - 149
Mirex	69.0	67.7	P/P	31 - 90.0
Permethrin	83.9	83.7	P/P	41 - 108
Phenothrin	59.5	59.2	P/P	22 - 91.0
Prallethrin	62.0	65.2	P/P	32 - 92.0
Trans-Nonachlor	85.1	86.5	P/P	50 - 107
Trifluralin	77.8	77.8	P/P	58 - 119

Reference Method: EPA 8276
Batch ID: P383183

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	81.3	80.1	P/P	47 - 119
Toxaphene	74.9	84.6	P/P	41 - 112

Reference Method: EPA 8321B
Batch ID: P383083

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	112		P	30 - 160
3-Hydroxycarbofuran	69.3		P	30 - 160
Acetaminophen	78.2		P	30 - 160
Acetamiprid	82.0		P	30 - 160
Afidopypropan	65.8		P	30 - 160
Aldicarb	58.2		P	30 - 160
Aldicarb Sulfone	82.8		P	30 - 160
Aldicarb Sulfoxide	87.8		P	30 - 160
Bentazon	37.1		P	30 - 160
Benzovindiflupyr	53.6		P	30 - 160
Carbamazepine	54.6		P	30 - 160
Carbaryl	43.0		P	30 - 160
Carbofuran	42.1		P	30 - 160
Clothianidin	72.3		P	30 - 160
Dinotefuran	66.6		P	30 - 160
Diuron	41.7		P	30 - 160
Fenuron	95.9		P	30 - 160
Fluridone	82.2		P	30 - 160
Hydrocodone	69.6		P	30 - 160
Ibuprofen	61.7		P	30 - 160
Imazapyr	72.6		P	30 - 160

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P383083

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Imidacloprid	92.0		P	30 - 160
Linuron	43.7		P	30 - 160
Mandestrobin	64.3		P	30 - 160
MCPP	124		P	30 - 160
Methiocarb	47.5		P	30 - 160
Methomyl	72.1		P	30 - 160
Naproxen	72.6		P	30 - 160
Oxamyl	81.6		P	30 - 160
Primidone	78.0		P	30 - 160
Propoxur	44.7		P	30 - 160
Pyraclostrobin	59.2		P	30 - 160
Thiamethoxam	67.5		P	30 - 160
Tolfenpyrad	43.2		P	30 - 160
Triclopyr	108		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P383201

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	73.0		P	40 - 150
AMPA	107		P	40 - 150
Endothall	128		P	40 - 150
Glufosinate	109		P	40 - 150
Glyphosate	109		P	40 - 140
Sucralose	68.1		P	40 - 150

Reference Method: SM 2120 B-2011
Batch ID: P383161

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	103		P	85 - 115

Reference Method: SM 2320 B-2011
Batch ID: P383248

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	93 - 104

Reference Method: SM 4500 F-C-2011
Batch ID: P383251

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.5		P	94 - 107

Reference Method: SM 5310 B-2011
Batch ID: P383311

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.2		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P383291

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2176121	Barium	102		P	80 - 120
2176121	Calcium	102		P	80 - 120
2176121	Iron	102		P	80 - 120
2176121	Magnesium	102		P	80 - 120
2176121	Manganese	102		P	80 - 120
2176121	Potassium	95.0		P	80 - 120
2176121	Sodium	99.9		P	80 - 120
2176121	Zinc	108		P	80 - 120
2176243	Barium	105	106	P/P	80 - 120
2176243	Calcium	106	105	P/P	80 - 120
2176243	Iron	103	104	P/P	80 - 120
2176243	Magnesium	105	105	P/P	80 - 120
2176243	Manganese	104	104	P/P	80 - 120
2176243	Potassium	104	103	P/P	80 - 120
2176243	Sodium	99.9	99.7	P/P	80 - 120
2176243	Zinc	108	108	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P383291

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2176121	Aluminum	93.3		P	80 - 120
2176121	Antimony	94.9		P	80 - 120
2176121	Arsenic	97.5		P	80 - 120
2176121	Boron	96.4		P	80 - 120
2176121	Chromium	93.2		P	80 - 120
2176121	Copper	96.5		P	80 - 120
2176121	Nickel	96.2		P	80 - 120
2176121	Selenium	93.2		P	80 - 120
2176121	Silver	96.0		P	80 - 120
2176243	Aluminum	92.8	92.5	P/P	80 - 120
2176243	Antimony	94.1	94.2	P/P	80 - 120
2176243	Arsenic	94.9	94.8	P/P	80 - 120
2176243	Boron	95.2	94.6	P/P	80 - 120
2176243	Chromium	97.5	97.1	P/P	80 - 120
2176243	Copper	96.7	96.6	P/P	80 - 120
2176243	Nickel	94.2	95.0	P/P	80 - 120
2176243	Selenium	90.1	91.9	P/P	80 - 120
2176243	Silver	96.6	96.4	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P383744

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2175770	Cadmium	93.6	101	P/P	80 - 120
2175770	Lead	89.9	97.9	P/P	80 - 120
2175770	Thallium	102	112	P/P	80 - 120
2175771	Cadmium	94.6		P	80 - 120
2175771	Lead	89.3		P	80 - 120
2175771	Thallium	103		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P383319

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2175177	Bromide	96.5	93.4	P/P	90 - 110
2176090	Bromide	91.1		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P383380

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2175991	Chloride	104		P	90 - 110
2176110	Chloride	103		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P383384

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2175991	Sulfate	103		P	90 - 110
2176110	Sulfate	102		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P383179

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2176033	Ammonia-N	99.0	97.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P383361

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2176091	Kjeldahl Nitrogen	97.7	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P383206

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2176033	NO2NO3-N	100	99.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P383231

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2176005	Total-P	104	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P383165

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2176059	O-Phosphate-P	98.9	99.5	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P383109

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2175791	Acetochlor	101	81.3	P/P	68 - 126

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P383109

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2175791	Alachlor	101	75.2	P/P	66 - 125
2175791	Azinphos Methyl	114	92.4	P/P	54 - 162
2175791	Bromacil	86.0	69.9	P/P	34 - 144
2175791	Butylate	65.7	39.2	P/P	16 - 92.0
2175791	Carbophenothion	88.9	69.6	P/P	50 - 150
2175791	Chlorpyrifos Ethyl	88.4	75.4	P/P	63 - 124
2175791	Chlorpyrifos Methyl	95.0	73.5	P/P	64 - 125
2175791	Cyanazine	113	84.0	P/P	13 - 245
2175791	Demeton	106	76.3	P/P	20 - 154
2175791	Diazinon	101	81.9	P/P	66 - 141
2175791	Dimethenamid	98.9	83.7	P/P	50 - 130
2175791	Disulfoton	94.3	74.3	P/P	55 - 130
2175791	Dithiopyr	90.5	77.4	P/P	66 - 122
2175791	EPTC	52.0	36.7	P/P	15 - 93.0
2175791	Ethion	90.4	76.2	P/P	15 - 148
2175791	Ethoprop	102	77.2	P/P	59 - 126
2175791	Fenamiphos	84.5	78.1	P/P	39 - 137
2175791	Fipronil	106	86.8	P/P	47 - 131
2175791	Fipronil Desulfinyl	101	81.5	P/P	43 - 121
2175791	Fipronil Sulfide	85.1	76.7	P/P	29 - 134
2175791	Fipronil Sulfone	81.8	74.3	P/P	19 - 131
2175791	Flumioxazin	137	114	P/P	70 - 200
2175791	Fonofos	85.5	70.8	P/P	62 - 128
2175791	Hexazinone	110	92.2	P/P	58 - 154
2175791	Imazalil	70.3	75.0	P/P	50 - 150
2175791	Malathion	94.5	85.2	P/P	54 - 135
2175791	Metalaxyl	93.2	74.4	P/P	46 - 136
2175791	Metolachlor	98.6	76.7	P/P	62 - 126
2175791	Mevinphos	103	78.4	P/P	44 - 135
2175791	Molinate	72.2	51.9	P/P	31 - 104
2175791	Naled	68.2	59.2	P/P	40 - 130
2175791	Norflurazon	96.3	82.8	P/P	32 - 134
2175791	Oxadiazon	77.6	67.1	P/P	55 - 123
2175791	Parathion Ethyl	99.4	77.7	P/P	67 - 120
2175791	Parathion Methyl	126	98.7	P/P	70 - 140
2175791	Pendimethalin	103	87.1	P/P	59 - 145
2175791	Phorate	97.3	86.4	P/P	52 - 127
2175791	Prodiamine	79.4	123	P/P	11 - 157
2175791	Prometon	116	93.5	P/P	55 - 130
2175791	Prometryn	122	102	P/P	55 - 127
2175791	Pronamide	114	90.6	P/P	50 - 150
2175791	Propiconazole	102	80.0	P/P	50 - 150
2175791	Simazine	126	96.8	P/P	58 - 159
2175791	Sulfentrazone	87.3	77.4	P/P	50 - 150
2175791	Tebuconazole	59.3	81.0	P/P	10 - 122
2175791	Terbufos	95.4	75.4	P/P	65 - 131
2175791	Terbutylazine	92.6	82.8	P/P	63 - 131

Reference Method: EPA 8270E
Batch ID: P383183

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

Reference Method: EPA 8270E
Batch ID: P383183

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2175996	Aldrin	63.2	63.6	P/P	32 - 82.0
2175996	Alpha-BHC	92.6	92.5	P/P	68 - 157
2175996	Alpha-Chlordane	92.8	95.0	P/P	54 - 108
2175996	Beta-BHC	106	107	P/P	54 - 200
2175996	Beta-Cyfluthrin	130	136	P/P	50 - 154
2175996	Bifenthrin	103	102	P/P	49 - 124
2175996	Chlorothalonil	161	254	P/P	10 - 289
2175996	Cis-Nonachlor	98.6	101	P/P	53 - 112
2175996	Cypermethrin	115	119	P/P	43 - 141
2175996	Dacthal	97.7	99.0	P/P	75 - 112
2175996	DDD-p,p'	107	109	P/P	58 - 125
2175996	DDE-p,p'	90.4	91.5	P/P	50 - 108
2175996	DDT-p,p'	91.3	92.0	P/P	52 - 140
2175996	Delta-BHC	149	158	P/P	61 - 228
2175996	Dicofol	93.9	79.9	P/P	59 - 130
2175996	Dieldrin	101	103	P/P	57 - 121
2175996	Endosulfan I	102	107	P/P	62 - 123
2175996	Endosulfan II	113	115	P/P	48 - 163
2175996	Endosulfan Sulfate	109	111	P/P	63 - 132
2175996	Endrin	99.5	106	P/P	58 - 128
2175996	Endrin Aldehyde	110	104	P/P	44 - 126
2175996	Endrin Ketone	100	102	P/P	68 - 127
2175996	Ethalfuralin	77.7	78.4	P/P	55 - 131
2175996	Gamma-BHC	116	115	P/P	54 - 206
2175996	Gamma-Chlordane	88.1	90.3	P/P	52 - 105
2175996	Heptachlor	76.3	78.9	P/P	47 - 94.0
2175996	Heptachlor Epoxide	110	112	P/P	61 - 113
2175996	Hexachlorobenzene	71.2	70.2	P/P	45 - 100
2175996	Lambda-Cyhalothrin	118	124	P/P	37 - 165
2175996	Methoxychlor	105	104	P/P	63 - 153
2175996	Mirex	72.3	73.3	P/P	38 - 90.0
2175996	Permethrin	95.4	97.4	P/P	45 - 112
2175996	Phenothrin	81.0	80.9	P/P	22 - 118
2175996	Prallethrin	71.4	73.1	P/P	21 - 114
2175996	Trans-Nonachlor	87.9	90.7	P/P	50 - 103
2175996	Trifluralin	77.4	77.8	P/P	57 - 122

Reference Method: EPA 8276
Batch ID: P383183

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2176015	Chlordane	77.5	78.6	P/P	34 - 129
2176015	Toxaphene	71.7	71.4	P/P	26 - 123

Reference Method: EPA 8321B
Batch ID: P383083

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2175208	3-Hydroxycarbofuran	47.2	48.3	P/P	30 - 160
2175208	Aldicarb	27.3	32.8	F/P	30 - 160
2175208	Aldicarb Sulfone	61.3	65.8	P/P	30 - 160
2175208	Aldicarb Sulfoxide	42.9	49.7	P/P	30 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P383083

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2175208	Carbaryl	31.5	31.7	P/P	30 - 160
2175208	Carbofuran	29.1	30.3	F/P	30 - 160
2175208	Methiocarb	37.8	39.9	P/P	30 - 160
2175208	Methomyl	55.4	58.7	P/P	30 - 160
2175208	Oxamyl	58.9	65.0	P/P	30 - 160
2175208	Propoxur	31.4	32.7	P/P	30 - 160
2175814	2,4-D	110	115	P/P	30 - 160
2175814	Acetaminophen	79.4	77.6	P/P	30 - 160
2175814	Acetamiprid	59.2	65.6	P/P	30 - 160
2175814	Afidopyropen	65.5	68.2	P/P	30 - 160
2175814	Benzovindiflupyr	54.3	57.6	P/P	30 - 160
2175814	Carbamazepine	42.3	42.1	P/P	30 - 160
2175814	Clothianidin	53.1	54.9	P/P	30 - 160
2175814	Dinotefuran	62.3	60.4	P/P	30 - 160
2175814	Diuron	33.9	33.8	P/P	30 - 160
2175814	Fenuron	61.5	62.3	P/P	30 - 160
2175814	Fluridone	81.0	80.2	P/P	30 - 160
2175814	Hydrocodone	53.7	53.8	P/P	30 - 160
2175814	Ibuprofen	49.5	52.9	P/P	30 - 160
2175814	Imidacloprid	99.9	106	P/P	30 - 160
2175814	Linuron	40.1	41.2	P/P	30 - 160
2175814	Mandestrobin	61.7	61.4	P/P	30 - 160
2175814	MCCP	124	127	P/P	30 - 160
2175814	Naproxen	56.3	61.2	P/P	30 - 160
2175814	Primidone	53.3	51.5	P/P	30 - 160
2175814	Pyraclostrobin	63.4	64.8	P/P	30 - 160
2175814	Thiamethoxam	58.4	56.7	P/P	30 - 160
2175814	Tolfenpyrad	52.4	51.1	P/P	30 - 160
2175814	Triclopyr	101	130	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P383201

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2175904	Acesulfame K	30.8	31.9	F/F	40 - 150
2175904	AMPA	62.9	51.1	P/P	40 - 150
2175904	Endothall	159	168	F/F	40 - 150
2175904	Glufosinate	72.8	73.4	P/P	40 - 150
2175904	Glyphosate	89.9	55.9	P/P	40 - 140
2175904	Sucralose	59.6	66.0	P/P	40 - 150

Reference Method: SM 4500 F-C-2011
Batch ID: P383251

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2176090	Fluoride	98.4	95.2	P/P	94 - 107

Reference Method: SM 5310 B-2011
Batch ID: P383311

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2176111	Organic Carbon	102	102	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P383156

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2176032	Turbidity	1.63	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P383291

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2176243	Barium	0.732	Spike	P	0 - 20
2176243	Calcium	0.419	Spike	P	0 - 20
2176243	Iron	0.419	Spike	P	0 - 20
2176243	Magnesium	0.142	Spike	P	0 - 20
2176243	Manganese	0.387	Spike	P	0 - 20
2176243	Potassium	0.993	Spike	P	0 - 20
2176243	Sodium	0.100	Spike	P	0 - 20
2176243	Zinc	0.399	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P383291

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2176243	Aluminum	0.371	Spike	P	0 - 20
2176243	Antimony	0.0296	Spike	P	0 - 20
2176243	Arsenic	0.133	Spike	P	0 - 20
2176243	Boron	0.641	Spike	P	0 - 20
2176243	Chromium	0.414	Spike	P	0 - 20
2176243	Copper	0.0300	Spike	P	0 - 20
2176243	Nickel	0.846	Spike	P	0 - 20
2176243	Selenium	1.94	Spike	P	0 - 20
2176243	Silver	0.133	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P383744

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2175770	Cadmium	7.68	Spike	P	0 - 20
2175770	Lead	8.36	Spike	P	0 - 20
2175770	Thallium	8.96	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P383319

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2175177	Bromide	3.11	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P383380

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2175991	Chloride	1.07	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P383384

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2175991	Sulfate	0.916	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P383179

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2176033	Ammonia-N	1.82	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P383361

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2176091	Kjeldahl Nitrogen	1.69	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P383206

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2176033	NO2NO3-N	1.00	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P383231

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2176005	Total-P	1.65	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P383165

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2176059	O-Phosphate-P	0.605	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P383109

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2175791	Acetochlor	21.9	Spike	P	0 - 30
2175791	Alachlor	29.5	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P383109

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2175791	Ametryn	19.6	Spike	P	0 - 30
2175791	Atrazine	4.84	Spike	P	0 - 30
2175791	Atrazine Desethyl	22.6	Spike	P	0 - 30
2175791	Azinphos Methyl	20.8	Spike	P	0 - 30
2175791	Bromacil	20.7	Spike	P	0 - 30
2175791	Butylate	50.5	Spike	F	0 - 30
2175791	Carbophenothion	24.4	Spike	P	0 - 30
2175791	Chlorpyrifos Ethyl	15.9	Spike	P	0 - 30
2175791	Chlorpyrifos Methyl	25.6	Spike	P	0 - 30
2175791	Cyanazine	29.3	Spike	P	0 - 30
2175791	Demeton	32.7	Spike	F	0 - 30
2175791	Diazinon	21.2	Spike	P	0 - 30
2175791	Dimethenamid	16.7	Spike	P	0 - 30
2175791	Disulfoton	23.7	Spike	P	0 - 30
2175791	Dithiopyr	15.6	Spike	P	0 - 30
2175791	EPTC	34.4	Spike	F	0 - 30
2175791	Ethion	17.1	Spike	P	0 - 30
2175791	Ethoprop	28.1	Spike	P	0 - 30
2175791	Fenamiphos	7.80	Spike	P	0 - 30
2175791	Fipronil	19.8	Spike	P	0 - 30
2175791	Fipronil Desulfinyl	21.8	Spike	P	0 - 30
2175791	Fipronil Sulfide	10.3	Spike	P	0 - 30
2175791	Fipronil Sulfone	9.60	Spike	P	0 - 30
2175791	Flumioxazin	12.5	Spike	P	0 - 30
2175791	Fonofos	18.9	Spike	P	0 - 30
2175791	Hexazinone	9.94	Spike	P	0 - 30
2175791	Imazalil	6.48	Spike	P	0 - 30
2175791	Malathion	10.4	Spike	P	0 - 30
2175791	Metalaxyl	22.5	Spike	P	0 - 30
2175791	Metolachlor	13.9	Spike	P	0 - 30
2175791	Metribuzin	28.0	Spike	P	0 - 30
2175791	Mevinphos	27.6	Spike	P	0 - 30
2175791	Molinate	32.8	Spike	F	0 - 30
2175791	Naled	14.1	Spike	P	0 - 30
2175791	Norflurazon	15.0	Spike	P	0 - 30
2175791	Oxadiazon	13.6	Spike	P	0 - 30
2175791	Parathion Ethyl	24.4	Spike	P	0 - 30
2175791	Parathion Methyl	24.6	Spike	P	0 - 30
2175791	Pendimethalin	16.2	Spike	P	0 - 30
2175791	Phorate	11.9	Spike	P	0 - 30
2175791	Prodiamine	43.4	Spike	F	0 - 30
2175791	Prometon	21.8	Spike	P	0 - 30
2175791	Prometryn	15.2	Spike	P	0 - 30
2175791	Pronamide	23.2	Spike	P	0 - 30
2175791	Propiconazole	17.3	Spike	P	0 - 30
2175791	Simazine	23.1	Spike	P	0 - 30
2175791	Sulfentrazone	12.0	Spike	P	0 - 30
2175791	Tebuconazole	30.9	Spike	F	0 - 30
2175791	Terbufos	23.3	Spike	P	0 - 30
2175791	Terbuthylazine	11.2	Spike	P	0 - 30
LFB	Acetochlor	3.36	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P383109

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Alachlor	0.688	LCS	P	0 - 30
LFB	Ametryn	3.50	LCS	P	0 - 30
LFB	Atrazine	1.60	LCS	P	0 - 30
LFB	Atrazine Desethyl	23.7	LCS	P	0 - 30
LFB	Azinphos Methyl	16.5	LCS	P	0 - 30
LFB	Bromacil	9.55	LCS	P	0 - 30
LFB	Butylate	25.4	LCS	P	0 - 30
LFB	Carbophenothion	0.378	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	5.22	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	12.9	LCS	P	0 - 30
LFB	Cyanazine	35.2	LCS	F	0 - 30
LFB	Demeton	0.767	LCS	P	0 - 30
LFB	Diazinon	0.665	LCS	P	0 - 30
LFB	Dimethenamid	1.58	LCS	P	0 - 30
LFB	Disulfoton	7.47	LCS	P	0 - 30
LFB	Dithiopyr	1.14	LCS	P	0 - 30
LFB	EPTC	19.4	LCS	P	0 - 30
LFB	Ethion	8.28	LCS	P	0 - 30
LFB	Ethoprop	3.85	LCS	P	0 - 30
LFB	Fenamiphos	5.59	LCS	P	0 - 30
LFB	Fipronil	9.74	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	2.81	LCS	P	0 - 30
LFB	Fipronil Sulfide	0.281	LCS	P	0 - 30
LFB	Fipronil Sulfone	9.27	LCS	P	0 - 30
LFB	Flumioxazin	18.3	LCS	P	0 - 30
LFB	Fonofos	11.5	LCS	P	0 - 30
LFB	Hexazinone	0.917	LCS	P	0 - 30
LFB	Imazalil	43.1	LCS	F	0 - 30
LFB	Malathion	1.04	LCS	P	0 - 30
LFB	Metalaxyl	28.3	LCS	P	0 - 30
LFB	Metolachlor	2.05	LCS	P	0 - 30
LFB	Metribuzin	28.7	LCS	P	0 - 30
LFB	Mevinphos	4.72	LCS	P	0 - 30
LFB	Molinate	16.0	LCS	P	0 - 30
LFB	Naled	0.158	LCS	P	0 - 30
LFB	Norflurazon	6.04	LCS	P	0 - 30
LFB	Oxadiazon	3.65	LCS	P	0 - 30
LFB	Parathion Ethyl	2.97	LCS	P	0 - 30
LFB	Parathion Methyl	1.55	LCS	P	0 - 30
LFB	Pendimethalin	19.2	LCS	P	0 - 30
LFB	Phorate	17.3	LCS	P	0 - 30
LFB	Prodiamine	11.7	LCS	P	0 - 30
LFB	Prometon	4.55	LCS	P	0 - 30
LFB	Prometryn	9.84	LCS	P	0 - 30
LFB	Pronamide	0.891	LCS	P	0 - 30
LFB	Propiconazole	0.0259	LCS	P	0 - 30
LFB	Simazine	3.16	LCS	P	0 - 30
LFB	Sulfentrazone	0.559	LCS	P	0 - 30
LFB	Tebuconazole	34.4	LCS	F	0 - 30
LFB	Terbufos	12.8	LCS	P	0 - 30
LFB	Terbutylazine	4.08	LCS	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E
Batch ID: P383183

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2175996	Aldrin	0.713	Spike	P	0 - 30
2175996	Alpha-BHC	0.159	Spike	P	0 - 30
2175996	Alpha-Chlordane	2.29	Spike	P	0 - 30
2175996	Beta-BHC	1.03	Spike	P	0 - 30
2175996	Beta-Cyfluthrin	5.09	Spike	P	0 - 30
2175996	Bifenthrin	0.733	Spike	P	0 - 30
2175996	Chlorothalonil	44.9	Spike	F	0 - 30
2175996	Cis-Nonachlor	2.25	Spike	P	0 - 30
2175996	Cypermethrin	3.16	Spike	P	0 - 30
2175996	Dacthal	1.27	Spike	P	0 - 30
2175996	DDD-p,p'	2.09	Spike	P	0 - 30
2175996	DDE-p,p'	1.19	Spike	P	0 - 30
2175996	DDT-p,p'	0.758	Spike	P	0 - 30
2175996	Delta-BHC	5.61	Spike	P	0 - 30
2175996	Dicofol	16.2	Spike	P	0 - 30
2175996	Dieldrin	2.06	Spike	P	0 - 30
2175996	Endosulfan I	5.16	Spike	P	0 - 30
2175996	Endosulfan II	1.95	Spike	P	0 - 30
2175996	Endosulfan Sulfate	2.40	Spike	P	0 - 30
2175996	Endrin	6.04	Spike	P	0 - 30
2175996	Endrin Aldehyde	5.89	Spike	P	0 - 30
2175996	Endrin Ketone	1.72	Spike	P	0 - 30
2175996	Ethalfuralin	0.891	Spike	P	0 - 30
2175996	Gamma-BHC	0.498	Spike	P	0 - 30
2175996	Gamma-Chlordane	2.51	Spike	P	0 - 30
2175996	Heptachlor	3.44	Spike	P	0 - 30
2175996	Heptachlor Epoxide	1.26	Spike	P	0 - 30
2175996	Hexachlorobenzene	1.28	Spike	P	0 - 30
2175996	Lambda-Cyhalothrin	5.40	Spike	P	0 - 30
2175996	Methoxychlor	0.464	Spike	P	0 - 30
2175996	Mirex	1.38	Spike	P	0 - 30
2175996	Permethrin	2.13	Spike	P	0 - 30
2175996	Phenothrin	0.117	Spike	P	0 - 30
2175996	Prallethrin	2.41	Spike	P	0 - 30
2175996	Trans-Nonachlor	3.11	Spike	P	0 - 30
2175996	Trifluralin	0.489	Spike	P	0 - 30
LFB	Aldrin	0.631	LCS	P	0 - 30
LFB	Alpha-BHC	1.05	LCS	P	0 - 30
LFB	Alpha-Chlordane	1.25	LCS	P	0 - 30
LFB	Beta-BHC	3.42	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	1.28	LCS	P	0 - 30
LFB	Bifenthrin	0.862	LCS	P	0 - 30
LFB	Chlorothalonil	17.6	LCS	P	0 - 30
LFB	Cis-Nonachlor	2.83	LCS	P	0 - 30
LFB	Cypermethrin	6.40	LCS	P	0 - 30
LFB	Dacthal	2.45	LCS	P	0 - 30
LFB	DDD-p,p'	3.33	LCS	P	0 - 30
LFB	DDE-p,p'	0.965	LCS	P	0 - 30
LFB	DDT-p,p'	0.383	LCS	P	0 - 30
LFB	Delta-BHC	2.05	LCS	P	0 - 30
LFB	Dicofol	3.46	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P383183

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Dieldrin	3.82	LCS	P	0 - 30
LFB	Endosulfan I	1.16	LCS	P	0 - 30
LFB	Endosulfan II	1.25	LCS	P	0 - 30
LFB	Endosulfan Sulfate	2.77	LCS	P	0 - 30
LFB	Endrin	1.41	LCS	P	0 - 30
LFB	Endrin Aldehyde	0.455	LCS	P	0 - 30
LFB	Endrin Ketone	0.962	LCS	P	0 - 30
LFB	Ethalfuralin	1.95	LCS	P	0 - 30
LFB	Gamma-BHC	0.628	LCS	P	0 - 30
LFB	Gamma-Chlordane	1.42	LCS	P	0 - 30
LFB	Heptachlor	2.12	LCS	P	0 - 30
LFB	Heptachlor Epoxide	1.94	LCS	P	0 - 30
LFB	Hexachlorobenzene	1.61	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	0.434	LCS	P	0 - 30
LFB	Methoxychlor	0.181	LCS	P	0 - 30
LFB	Mirex	1.90	LCS	P	0 - 30
LFB	Permethrin	0.240	LCS	P	0 - 30
LFB	Phenothrin	0.522	LCS	P	0 - 30
LFB	Prallethrin	4.94	LCS	P	0 - 30
LFB	Trans-Nonachlor	1.55	LCS	P	0 - 30
LFB	Trifluralin	0.107	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P383183

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2176015	Chlordane	1.43	Spike	P	0 - 30
2176015	Toxaphene	0.380	Spike	P	0 - 30
LFB	Chlordane	1.50	LCS	P	0 - 30
LFB	Toxaphene	12.2	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P383083

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2175208	3-Hydroxycarbofuran	2.37	Spike	P	0 - 30
2175208	Aldicarb	18.4	Spike	P	0 - 30
2175208	Aldicarb Sulfone	7.17	Spike	P	0 - 30
2175208	Aldicarb Sulfoxide	14.9	Spike	P	0 - 30
2175208	Carbaryl	0.622	Spike	P	0 - 30
2175208	Carbofuran	4.14	Spike	P	0 - 30
2175208	Methiocarb	5.54	Spike	P	0 - 30
2175208	Methomyl	5.78	Spike	P	0 - 30
2175208	Oxamyl	9.81	Spike	P	0 - 30
2175208	Propoxur	4.29	Spike	P	0 - 30
2175814	2,4-D	4.98	Spike	P	0 - 30
2175814	Acetaminophen	2.30	Spike	P	0 - 30
2175814	Acetamiprid	10.3	Spike	P	0 - 30
2175814	Afidopyropen	4.11	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P383083

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2175814	Bentazon	2.92	Spike	P	0 - 30
2175814	Benzovindiflupyr	5.94	Spike	P	0 - 30
2175814	Carbamazepine	0.371	Spike	P	0 - 30
2175814	Clothianidin	3.40	Spike	P	0 - 30
2175814	Dinotefuran	3.23	Spike	P	0 - 30
2175814	Diuron	0.238	Spike	P	0 - 30
2175814	Fenuron	1.17	Spike	P	0 - 30
2175814	Fluridone	0.881	Spike	P	0 - 30
2175814	Hydrocodone	0.333	Spike	P	0 - 30
2175814	Ibuprofen	5.07	Spike	P	0 - 30
2175814	Imazapyr	5.14	Spike	P	0 - 30
2175814	Imidacloprid	5.98	Spike	P	0 - 30
2175814	Linuron	2.80	Spike	P	0 - 30
2175814	Mandestrobin	0.625	Spike	P	0 - 30
2175814	MCPP	2.34	Spike	P	0 - 30
2175814	Naproxen	8.32	Spike	P	0 - 30
2175814	Primidone	3.45	Spike	P	0 - 30
2175814	Pyraclostrobin	2.22	Spike	P	0 - 30
2175814	Thiamethoxam	2.97	Spike	P	0 - 30
2175814	Tolfenpyrad	2.53	Spike	P	0 - 30
2175814	Triclopyr	24.9	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P383201

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2175904	Acesulfame K	3.56	Spike	P	0 - 30
2175904	AMPA	4.78	Spike	P	0 - 30
2175904	Endothall	5.88	Spike	P	0 - 30
2175904	Glufosinate	0.862	Spike	P	0 - 30
2175904	Glyphosate	16.6	Spike	P	0 - 30
2175904	Sucralose	9.84	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P383161

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2176093	Color (true)	3.80	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P383248

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2176090	Total Alkalinity	0.437	Sample	P	0 - 8.1

Quality Assurance Report Precision

Reference Method: SM 2540 C-2011
Batch ID: P383569

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2176055	TDS	0.0	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P383251

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2176090	Fluoride	2.37	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011
Batch ID: P383311

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2176111	Organic Carbon	0.360	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2176100
Field Sample ID: G2NE0735

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	110	P	30 - 160
EPA 8321B	Acetaminophen-d4	105	P	30 - 160
EPA 8321B	Carbamazepine-d10	54.0	P	30 - 160
EPA 8321B	Diuron-d6	48.0	P	30 - 160
EPA 8321B	Endothall-d6	139	P	50 - 160
EPA 8321B	Endothall-d6	139	P	50 - 160
EPA 8321B	Glyphosate 13C 15N	85.4	P	50 - 160
EPA 8321B	Glyphosate 13C 15N	85.4	P	50 - 160
EPA 8321B	Ibuprofen-d3	66.0	P	30 - 160
EPA 8321B	Primidone-d5	91.5	P	30 - 160
EPA 8321B	Sucralose-d6	63.0	P	50 - 160
EPA 8321B	Sucralose-d6	63.0	P	50 - 160

Lab Sample ID: 2176101
Field Sample ID: G2NE1159

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	42.3	P	30 - 160

Lab Sample ID: 2176102
Field Sample ID: G2NE1159

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	84.9	P	30 - 160
EPA 8321B	Carbamazepine-d10	51.2	P	30 - 160
EPA 8321B	Diuron-d6	48.9	P	30 - 160
EPA 8321B	Endothall-d6	158	P	50 - 160
EPA 8321B	Endothall-d6	158	P	50 - 160
EPA 8321B	Glyphosate 13C 15N	81.8	P	50 - 160
EPA 8321B	Glyphosate 13C 15N	81.8	P	50 - 160
EPA 8321B	Ibuprofen-d3	65.4	P	30 - 160
EPA 8321B	Primidone-d5	83.9	P	30 - 160
EPA 8321B	Sucralose-d6	68.7	P	50 - 160
EPA 8321B	Sucralose-d6	68.7	P	50 - 160

Lab Sample ID: 2176103
Field Sample ID: G2NE1159

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	78.4	P	44 - 112
EPA 8270E	Tetrachloro-m-xylene	56.1	P	34 - 106
EPA 8276	Decachlorobiphenyl	64.0	P	26 - 97.0
EPA 8276	PCNB	74.3	P	38 - 141

Lab Sample ID: 2176104
Field Sample ID: G2NE1159

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	127	P	72 - 135
EPA 8270E	Terbufos-d10	107	P	57 - 134

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A99305

Included Lab Sample IDs: 2176090, 2176093

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

Reference Method: SM 2120 B-2011

Run ID: A99307

Included Lab Sample IDs: 2176093

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A99308

Included Lab Sample IDs: 2176092, 2176095

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.9	99.2	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A99311

Included Lab Sample IDs: 2176091, 2176094

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A99318

Included Lab Sample IDs: 2176091, 2176094

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

Reference Method: SM 2320 B-2011

Run ID: A99334

Included Lab Sample IDs: 2176090, 2176093

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	103	99.7	P/P	90 - 110
Total Alkalinity	99.7	100	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A99334

Included Lab Sample IDs: 2176090, 2176093

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

Reference Method: EPA 8321B

Run ID: A99344

Included Lab Sample IDs: 2176100, 2176102

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

Reference Method: EPA 8321B

Run ID: A99344

Included Lab Sample IDs: 2176100, 2176102

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	87.2	90.2	P/P	60 - 160
Endothall	147	153	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A99345

Included Lab Sample IDs: 2176100, 2176102

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	108	106	P/P	60 - 160
Glufosinate	110	117	P/P	60 - 160
Glyphosate	109	117	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A99348

Included Lab Sample IDs: 2176100, 2176102

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	81.4	76.2	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A99360

Included Lab Sample IDs: 2176091, 2176094

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

Reference Method: SM 5310 B-2011

Run ID: A99365

Included Lab Sample IDs: 2176091, 2176094

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	99.1	100	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A99367

Included Lab Sample IDs: 2176100, 2176102

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	102	108	P/P	50 - 150
2,4-D	108	109	P/P	50 - 150
3-Hydroxycarbofuran	111	106	P/P	60 - 150
Acetaminophen	124	125	P/P	60 - 160
Acetamiprid	120	119	P/P	50 - 150
Afidopyropen	94.7	90.0	P/P	50 - 150
Aldicarb	94.7	80.5	P/P	60 - 150
Aldicarb Sulfone	107	111	P/P	50 - 150
Aldicarb Sulfoxide	101	104	P/P	50 - 150
Bentazon	107	92.2	P/P	50 - 160
Benzovindiflupyr	101	96.9	P/P	50 - 150
Carbamazepine	95.9	94.1	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A99367
Included Lab Sample IDs: 2176101

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Carbaryl	117	112	P/P	60 - 150
Carbofuran	103	100	P/P	50 - 150
Clothianidin	113	94.7	P/P	60 - 150
Dinotefuran	109	110	P/P	50 - 150
Diuron	102	95.1	P/P	60 - 160
Fenuron	120	120	P/P	60 - 150
Fluridone	133	131	P/P	60 - 160
Hydrocodone	118	108	P/P	60 - 150
Ibuprofen	122	120	P/P	50 - 160
Imazapyr	136	111	P/P	50 - 150
Imidacloprid	118	122	P/P	60 - 150
Linuron	87.1	81.0	P/P	60 - 150
Mandestrobin	95.6	91.5	P/P	50 - 150
MCPP	132	135	P/P	50 - 150
Methiocarb	117	110	P/P	50 - 150
Methomyl	99.5	103	P/P	50 - 150
Naproxen	89.5	132	P/P	50 - 160
Oxamyl	104	112	P/P	50 - 150
Primidone	108	102	P/P	60 - 150
Propoxur	116	114	P/P	50 - 150
Pyraclostrobin	114	111	P/P	60 - 150
Thiamethoxam	113	112	P/P	50 - 150
Tolfenpyrad	109	112	P/P	60 - 150
Triclopyr	113	139	P/P	50 - 150

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A99373
Included Lab Sample IDs: 2176090

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bromide	101	99.7	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A99401
Included Lab Sample IDs: 2176093

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	97.4	98.9	P/P	90 - 110
Sulfate	98.2	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A99420
Included Lab Sample IDs: 2176091, 2176094

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	99.0	100	P/P	90 - 110
Kjeldahl Nitrogen	99.4	99.0	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8276

Run ID: A99438

Included Lab Sample IDs: 2176103

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	96.7		P	80 - 120
Toxaphene	90.3		P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A99460

Included Lab Sample IDs: 2176105, 2176106

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	100	102	P/P	90 - 110
Calcium	101	103	P/P	90 - 110
Iron	101	102	P/P	90 - 110
Magnesium	101	103	P/P	90 - 110
Manganese	101	101	P/P	90 - 110
Potassium	97.2	99.7	P/P	90 - 110
Sodium	99.4	101	P/P	90 - 110
Zinc	101	103	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A99487

Included Lab Sample IDs: 2176103

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	98.7		P	80 - 120
Alpha-BHC	101		P	80 - 120
Alpha-Chlordane	100		P	80 - 120
Beta-BHC	93.9		P	80 - 120
Beta-Cyfluthrin	88.4		P	80 - 120
Bifenthrin	96.8		P	80 - 120
Chlorothalonil	80.6		P	80 - 120
Cis-Nonachlor	96.7		P	80 - 120
Cypermethrin	93.3		P	80 - 120
Dacthal	99.6		P	80 - 120
DDD-p,p'	101		P	80 - 120
DDE-p,p'	98.0		P	80 - 120
DDT-p,p'	108		P	80 - 120
Delta-BHC	91.8		P	80 - 120
Dicofol	90.9		P	80 - 120
Dieldrin	98.4		P	80 - 120
Endosulfan I	101		P	80 - 120
Endosulfan II	91.7		P	80 - 120
Endosulfan Sulfate	92.4		P	80 - 120
Endrin	97.6		P	80 - 120
Endrin Aldehyde	95.4		P	80 - 120
Endrin Ketone	96.8		P	80 - 120
Ethalfuralin	99.0		P	80 - 120
Gamma-BHC	102		P	80 - 120
Gamma-Chlordane	96.3		P	80 - 120
Heptachlor	94.6		P	80 - 120
Heptachlor Epoxide	99.7		P	80 - 120
Hexachlorobenzene	99.1		P	80 - 120
Lambda-Cyhalothrin	86.8		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A99487

Included Lab Sample IDs: 2176103

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Methoxychlor	102		P	80 - 120
Mirex	95.6		P	80 - 120
Permethrin	91.9		P	80 - 120
Phenothrin	89.2		P	80 - 120
Prallethrin	93.0		P	80 - 120
Trans-Nonachlor	98.3		P	80 - 120
Trifluralin	97.4		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A99537

Included Lab Sample IDs: 2176105, 2176106

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	92.2	93.0	P/P	90 - 110
Antimony	91.7	92.1	P/P	90 - 110
Arsenic	93.4	93.5	P/P	90 - 110
Boron	94.5	93.8	P/P	90 - 110
Chromium	92.3	93.8	P/P	90 - 110
Nickel	93.4	94.7	P/P	90 - 110
Selenium	92.3	93.2	P/P	90 - 110
Silver	94.3	93.9	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A99600

Included Lab Sample IDs: 2176104

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Atrazine	99.1		P	80 - 120

Reference Method: EPA 8270E

Run ID: A99602

Included Lab Sample IDs: 2176104

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	99.5		P	80 - 120
Alachlor	102		P	80 - 120
Ametryn	105		P	80 - 120
Atrazine Desethyl	93.7		P	80 - 120
Azinphos Methyl	99.5		P	80 - 120
Bromacil	90.7		P	80 - 120
Butylate	99.3		P	80 - 120
Carbophenothion	101		P	80 - 120
Chlorpyrifos Ethyl	96.5		P	80 - 120
Chlorpyrifos Methyl	103		P	80 - 120
Cyanazine	78.3*		F	80 - 120
Demeton	104		P	80 - 120
Diazinon	102		P	80 - 120
Dimethenamid	100		P	80 - 120
Disulfoton	97.2		P	80 - 120
Dithiopyr	102		P	80 - 120
EPTC	101		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A99602
Included Lab Sample IDs: 2176104

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ethion	101		P	80 - 120
Ethoprop	101		P	80 - 120
Fenamiphos	96.1		P	80 - 120
Fipronil	93.9		P	80 - 120
Fipronil Desulfinyl	98.9		P	80 - 120
Fipronil Sulfide	95.3		P	80 - 120
Fipronil Sulfone	97.1		P	80 - 120
Flumioxazin	89.5		P	80 - 120
Fonofos	102		P	80 - 120
Hexazinone	102		P	80 - 120
Imazalil	97.2		P	80 - 120
Malathion	97.5		P	80 - 120
Metaxyl	91.0		P	80 - 120
Metolachlor	102		P	80 - 120
Metribuzin	94.2		P	80 - 120
Mevinphos	102		P	80 - 120
Molinate	102		P	80 - 120
Naled	107		P	80 - 120
Norflurazon	96.5		P	80 - 120
Oxadiazon	96.8		P	80 - 120
Parathion Ethyl	98.7		P	80 - 120
Parathion Methyl	110		P	80 - 120
Pendimethalin	102		P	80 - 120
Phorate	102		P	80 - 120
Prodiamine	102		P	80 - 120
Prometon	105		P	80 - 120
Prometryn	101		P	80 - 120
Pronamide	101		P	80 - 120
Propiconazole	98.5		P	80 - 120
Simazine	100		P	80 - 120
Sulfentrazone	94.4		P	80 - 120
Tebuconazole	95.4		P	80 - 120
Terbufos	101		P	80 - 120
Terbuthylazine	103		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A99609
Included Lab Sample IDs: 2176105, 2176106

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Copper	97.1	91.8	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A99618
Included Lab Sample IDs: 2176105, 2176106

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cadmium	95.3	95.9	P/P	90 - 110
Lead	94.0	94.9	P/P	90 - 110
Thallium	94.1	92.2	P/P	90 - 110

Quality Assurance Report

Calibration Verification

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

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity							1.63	
EPA 200.7 Rev. 4.4	Barium	102		102	105	106			0.732
	Calcium	103		102	106	105			0.419
	Iron	101		102	103	104			0.419
	Magnesium	102		102	105	105			0.142
	Manganese	102		102	104	104			0.387
	Potassium	98.1		95.0	104	103			0.993
	Sodium	99.1		99.9	99.9	99.7			0.100
	Zinc	104		108	108	108			0.399
EPA 200.8 Rev. 5.4	Aluminum	95.7		92.8	92.5	93.3			0.371
	Antimony	97.1		94.1	94.2	94.9			0.0296
	Arsenic	97.3		94.9	97.5	94.8			0.133
	Boron	98.8		95.2	94.6	96.4			0.641
	Cadmium	98.0		93.6	101	94.6			7.68
	Chromium	99.8		97.5	97.1	93.2			0.414
	Copper	97.6		96.7	96.6	96.5			0.0300
	Lead	96.1		89.9	97.9	89.3			8.36
	Nickel	98.2		94.2	95.0	96.2			0.846
	Selenium	94.2		90.1	91.9	93.2			1.94
	Silver	99.3		96.6	96.4	96.0			0.133
	Thallium	101		102	112	103			8.96
EPA 300.0 Rev. 2.1	Bromide	100		96.5	93.4	91.1			3.11
	Chloride	101		104	103			1.07	
	Sulfate	101		103	102			0.916	
EPA 350.1 Rev. 2.0	Ammonia-N	99.2		99.0	97.0				1.82
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.5		97.7	100				1.69
EPA 353.2 Rev. 2.0	NO2NO3-N	99.5		100	99.5				1.00
EPA 365.1 Rev. 2.0	Total-P	106		104	106				1.65
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101		98.9	99.5				0.605
EPA 8270E	Acetochlor	95.4	98.7	81.3	101		3.36		21.9
	Alachlor	95.0	95.7	101	75.2		0.688		29.5
	Aldrin	57.6	57.2	63.6	63.2		0.631		0.713
	Alpha-BHC	90.9	91.9	92.6	92.5		1.05		0.159
	Alpha-Chlordane	90.0	91.2	92.8	95.0		1.25		2.29
	Ametryn	119	115				3.50		19.6
	Atrazine	99.2	101				1.60		4.84
	Atrazine Desethyl	82.6	65.1				23.7		22.6
	Azinphos Methyl	118	100	114	92.4		16.5		20.8
	Beta-BHC	96.8	100	106	107		3.42		1.03
	Beta-Cyfluthrin	102	104	130	136		1.28		5.09
	Bifenthrin	90.4	89.7	103	102		0.862		0.733
	Bromacil	98.3	89.4	86.0	69.9		9.55		20.7
	Butylate	84.8	65.7	65.7	39.2		25.4		50.5
	Carbophenothion	96.4	96.7	88.9	69.6		0.378		24.4
	Chlorothalonil	115	96.5	254	161		17.6		44.9
	Chlorpyrifos Ethyl	96.1	91.2	75.4	88.4		5.22		15.9
	Chlorpyrifos Methyl	99.8	87.8	73.5	95.0		12.9		25.6
	Cis-Nonachlor	88.9	91.4	101	98.6		2.83		2.25
	Cyanazine	109	76.4	113	84.0		35.2		29.3
	Cypermethrin	92.4	98.5	119	115		6.40		3.16
	Dacthal	95.6	98.0	97.7	99.0		2.45		1.27
	DDD-p,p'	98.1	101	107	109		3.33		2.09
	DDE-p,p'	85.7	86.5	90.4	91.5		0.965		1.19
	DDT-p,p'	88.3	87.9	91.3	92.0		0.383		0.758

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270E	Delta-BHC	130	127	149	158	2.05		5.61
	Demeton	77.4	76.8	76.3	106	0.767		32.7
	Diazinon	90.2	90.8	81.9	101	0.665		21.2
	Dicofol	83.6	80.8	93.9	79.9	3.46		16.2
	Dieldrin	96.0	99.7	101	103	3.82		2.06
	Dimethenamid	96.5	95.0	98.9	83.7	1.58		16.7
	Disulfoton	82.7	76.8	94.3	74.3	7.47		23.7
	Dithiopyr	90.1	91.2	90.5	77.4	1.14		15.6
	Endosulfan I	100	101	102	107	1.16		5.16
	Endosulfan II	107	106	113	115	1.25		1.95
	Endosulfan Sulfate	99.5	96.8	109	111	2.77		2.40
	Endrin	98.4	99.8	99.5	106	1.41		6.04
	Endrin Aldehyde	116	117	110	104	0.455		5.89
	Endrin Ketone	96.8	97.7	100	102	0.962		1.72
	EPTC	68.8	56.6	52.0	36.7	19.4		34.4
	Ethalfuralin	79.7	78.2	77.7	78.4	1.95		0.891
	Ethion	94.4	103	90.4	76.2	8.28		17.1
	Ethoprop	96.7	93.1	102	77.2	3.85		28.1
	Fenamiphos	90.9	86.0	84.5	78.1	5.59		7.80
	Fipronil	101	92.0	106	86.8	9.74		19.8
	Fipronil Desulfinyl	94.5	97.2	101	81.5	2.81		21.8
	Fipronil Sulfide	94.6	94.3	85.1	76.7	0.281		10.3
	Fipronil Sulfone	87.3	95.8	81.8	74.3	9.27		9.60
	Flumioxazin	83.5	100	137	114	18.3		12.5
	Fonofos	88.9	79.3	85.5	70.8	11.5		18.9
	Gamma-BHC	104	105	116	115	0.628		0.498
	Gamma-Chlordane	84.1	85.3	88.1	90.3	1.42		2.51
	Heptachlor	76.4	78.0	76.3	78.9	2.12		3.44
	Heptachlor Epoxide	93.6	95.4	110	112	1.94		1.26
	Hexachlorobenzene	75.0	73.8	71.2	70.2	1.61		1.28
	Hexazinone	101	102	110	92.2	0.917		9.94
	Imazalil	29.9	46.3	70.3	75.0	43.1		6.48
	Lambda-Cyhalothrin	95.4	95.0	118	124	0.434		5.40
	Malathion	106	105	94.5	85.2	1.04		10.4
	Metalaxyl	87.1	65.5	93.2	74.4	28.3		22.5
	Methoxychlor	103	104	105	104	0.181		0.464
	Metolachlor	95.2	97.1	98.6	76.7	2.05		13.9
	Metribuzin	111	83.0			28.7		28.0
	Mevinphos	97.1	92.6	103	78.4	4.72		27.6
	Mirex	69.0	67.7	72.3	73.3	1.90		1.38
	Molinate	76.8	65.4	72.2	51.9	16.0		32.8
	Naled	61.9	62.0	68.2	59.2	0.158		14.1
	Norflurazon	94.6	100	96.3	82.8	6.04		15.0
	Oxadiazon	84.2	87.3	77.6	67.1	3.65		13.6
	Parathion Ethyl	97.8	101	99.4	77.7	2.97		24.4
	Parathion Methyl	124	122	126	98.7	1.55		24.6
	Pendimethalin	93.6	77.2	103	87.1	19.2		16.2
	Permethrin	83.9	83.7	95.4	97.4	0.240		2.13
	Phenothrin	59.5	59.2	81.0	80.9	0.522		0.117
	Phorate	75.8	63.8	97.3	86.4	17.3		11.9
	Prallethrin	62.0	65.2	71.4	73.1	4.94		2.41
	Prodiamine	84.3	75.0	79.4	123	11.7		43.4
	Prometon	103	108	116	93.5	4.55		21.8
	Prometryn	114	104	122	102	9.84		15.2

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270E	Pronamide	105	105	114	90.6	0.891		23.2
	Propiconazole	101	101	102	80.0	0.0259		17.3
	Simazine	99.8	103	126	96.8	3.16		23.1
	Sulfentrazone	75.2	74.8	87.3	77.4	0.559		12.0
	Tebuconazole	63.6	89.9	59.3	81.0	34.4		30.9
	Terbufos	91.3	80.3	95.4	75.4	12.8		23.3
	Terbutylazine	95.4	99.4	92.6	82.8	4.08		11.2
	Trans-Nonachlor	85.1	86.5	87.9	90.7	1.55		3.11
	Trifluralin	77.8	77.8	77.4	77.8	0.107		0.489
EPA 8276	Chlordane	81.3	80.1	77.5	78.6	1.50		1.43
	Toxaphene	74.9	84.6	71.7	71.4	12.2		0.380
EPA 8321B	2,4-D	112		110	115			4.98
	3-Hydroxycarbofuran	69.3		47.2	48.3			2.37
	Acesulfame K	73.0		30.8	31.9			3.56
	Acetaminophen	78.2		79.4	77.6			2.30
	Acetamiprid	82.0		59.2	65.6			10.3
	Afidopyropen	65.8		65.5	68.2			4.11
	Aldicarb	58.2		27.3	32.8			18.4
	Aldicarb Sulfone	82.8		61.3	65.8			7.17
	Aldicarb Sulfoxide	87.8		42.9	49.7			14.9
	AMPA	107		62.9	51.1			4.78
	Bentazon	37.1						2.92
	Benzovindiflupyr	53.6		54.3	57.6			5.94
	Carbamazepine	54.6		42.3	42.1			0.371
	Carbaryl	43.0		31.5	31.7			0.622
	Carbofuran	42.1		29.1	30.3			4.14
	Clothianidin	72.3		53.1	54.9			3.40
	Dinotefuran	66.6		62.3	60.4			3.23
	Diuron	41.7		33.9	33.8			0.238
	Endothall	128		159	168			5.88
	Fenuron	95.9		61.5	62.3			1.17
	Fluridone	82.2		81.0	80.2			0.881
	Glufosinate	109		72.8	73.4			0.862
	Glyphosate	109		89.9	55.9			16.6
	Hydrocodone	69.6		53.7	53.8			0.333
	Ibuprofen	61.7		49.5	52.9			5.07
	Imazapyr	72.6						5.14
	Imidacloprid	92.0		99.9	106			5.98
	Linuron	43.7		40.1	41.2			2.80
	Mandestrobin	64.3		61.7	61.4			0.625
	MCPP	124		124	127			2.34
	Methiocarb	47.5		37.8	39.9			5.54
	Methomyl	72.1		55.4	58.7			5.78
	Naproxen	72.6		56.3	61.2			8.32
	Oxamyl	81.6		58.9	65.0			9.81
	Primidone	78.0		53.3	51.5			3.45
	Propoxur	44.7		31.4	32.7			4.29
	Pyraclostrobin	59.2		63.4	64.8			2.22
	Sucralose	68.1		59.6	66.0			9.84
	Thiamethoxam	67.5		58.4	56.7			2.97
	Tolfenpyrad	43.2		52.4	51.1			2.53
	Triclopyr	108		101	130			24.9
SM 2120 B-2011	Color (true)	103					3.80	
SM 2320 B-2011	Total Alkalinity	101					0.437	

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
					LCS	
SM 2540 C-2011	TDS				0.0	
SM 4500 F-C-2011	Fluoride	99.5	98.4	95.2		2.37
SM 5310 B-2011	Organic Carbon	98.2	102	102		0.360

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2176090, 2176093
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2176105, 2176106
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2176105, 2176106
EPA 300.0 Rev. 2.1	Bromide in aqueous matrices	2176090
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2176093
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2176093
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2176091, 2176094
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2176091, 2176094
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2176091, 2176094
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2176091, 2176094
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2176092, 2176095
EPA 8270E	Organochlorine pesticides in water matrices by GC/MS-SIM	2176103
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2176104
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2176103
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2176101
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2176100, 2176102
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2176100, 2176102
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2176093
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2176090, 2176093
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2176106
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2176093
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2176090, 2176093
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2176090, 2176093
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2176091, 2176094

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	06/12/2020			06/12/2020 15:44	Yen Ta	2176090, 2176093
EPA 200.7 Rev. 4.4	06/12/2020	06/16/2020 16:20	Elliott D. Healy	06/17/2020 18:09	Betina Topolski	2176105
	06/12/2020	06/16/2020 16:20	Elliott D. Healy	06/17/2020 18:17	Betina Topolski	2176106
EPA 200.8 Rev. 5.4	06/12/2020	06/16/2020 16:20	Elliott D. Healy	06/23/2020 21:13	Justin Cutchin	2176105
	06/12/2020	06/16/2020 16:20	Elliott D. Healy	06/23/2020 21:21	Justin Cutchin	2176106
	06/12/2020	06/16/2020 16:20	Elliott D. Healy	06/30/2020 13:41	Justin Cutchin	2176105
	06/12/2020	06/16/2020 16:20	Elliott D. Healy	06/30/2020 13:44	Justin Cutchin	2176106
	06/12/2020	06/26/2020 14:45	Justin Cutchin	06/30/2020 20:26	Justin Cutchin	2176105
	06/12/2020	06/26/2020 14:45	Justin Cutchin	06/30/2020 20:29	Justin Cutchin	2176106
EPA 300.0 Rev. 2.1	06/12/2020			06/16/2020 20:19	Elliott Rodriguez	2176090
	06/12/2020			06/17/2020 02:05	Elliott Rodriguez	2176093
EPA 350.1 Rev. 2.0	06/12/2020			06/14/2020 11:51	Ping Hua	2176091
	06/12/2020			06/14/2020 11:52	Ping Hua	2176094
EPA 351.2 Rev. 2.0	06/12/2020	06/18/2020 09:50	Sima Feizi	06/19/2020 09:00	Jhamieka S. Greenwood	2176091
	06/12/2020	06/18/2020 09:50	Sima Feizi	06/19/2020 09:17	Jhamieka S. Greenwood	2176094
EPA 353.2 Rev. 2.0	06/12/2020			06/15/2020 08:23	Beverly Y. Sanders	2176091
	06/12/2020			06/15/2020 08:24	Beverly Y. Sanders	2176094
EPA 365.1 Rev. 2.0	06/12/2020	06/15/2020 15:28	Yen Ta	06/16/2020 13:49	Lipi Saha	2176091
	06/12/2020	06/15/2020 15:28	Yen Ta	06/16/2020 13:52	Lipi Saha	2176094
EPA 365.1 Rev. 2.0 dissolved	06/12/2020			06/12/2020 21:17	Julia Storbeck	2176095
	06/12/2020			06/12/2020 21:18	Julia Storbeck	2176092
EPA 8270E	06/12/2020	06/15/2020 08:00	Fe-Val Siddell	06/16/2020 21:53	Vandana T. Nagar	2176104
	06/12/2020	06/15/2020 08:00	Fe-Val Siddell	06/18/2020 20:09	Vandana T. Nagar	2176104
	06/12/2020	06/15/2020 08:00	Rasheda Ghaffari	06/24/2020 01:23	Michael Poppell	2176103
EPA 8276	06/12/2020	06/15/2020 08:00	Rasheda Ghaffari	06/20/2020 12:19	Arthur Maknenko	2176103
EPA 8321B	06/12/2020	06/15/2020 10:10	Hoor Shaik	06/15/2020 19:22	Juyoung Kim	2176101
	06/12/2020	06/15/2020 10:10	Hoor Shaik	06/16/2020 06:20	Juyoung Kim	2176100
	06/12/2020	06/15/2020 10:10	Hoor Shaik	06/16/2020 06:55	Juyoung Kim	2176102
	06/12/2020	06/15/2020 10:10	Hoor Shaik	06/16/2020 11:32	Juyoung Kim	2176102
	06/12/2020	06/15/2020 10:15	Rebecca Ware	06/15/2020 14:10	Rebecca Ware	2176100
	06/12/2020	06/15/2020 10:15	Rebecca Ware	06/15/2020 14:24	Rebecca Ware	2176102
	06/12/2020	06/15/2020 10:15	Rebecca Ware	06/15/2020 18:33	Rebecca Ware	2176100
	06/12/2020	06/15/2020 10:15	Rebecca Ware	06/15/2020 18:43	Rebecca Ware	2176102
	06/12/2020	06/15/2020 10:15	Rebecca Ware	06/16/2020 12:02	Rebecca Ware	2176100
	06/12/2020	06/15/2020 10:15	Rebecca Ware	06/16/2020 12:14	Rebecca Ware	2176102
SM 2120 B-2011	06/12/2020			06/12/2020 16:59	Benjamin T. Nordmann	2176093
SM 2320 B-2011	06/12/2020			06/15/2020 23:10	Dale L. Simmons	2176090
	06/12/2020			06/16/2020 02:46	Dale L. Simmons	2176093
SM 2340B	06/12/2020			06/17/2020 18:17	Betina Topolski	2176106
SM 2540 C-2011	06/12/2020			06/16/2020 14:02	Yijie Li	2176093

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2540 D-2011	06/12/2020			06/16/2020 14:22	Yijie Li	2176090, 2176093
SM 4500 F-C-2011	06/12/2020			06/15/2020 22:59	Dale L. Simmons	2176090
	06/12/2020			06/16/2020 02:46	Dale L. Simmons	2176093
SM 5310 B-2011	06/12/2020			06/16/2020 15:45	David Boose	2176091
	06/12/2020			06/16/2020 15:57	David Boose	2176094