

Chemical Analysis Report

NW-DIST-2019-10-31-01

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

Event Description: **Escambia River Run**
Request ID: **RQ-2019-10-21-27**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
160 Government Center
Suite 208
Pensacola, FL 32502-5794
Attn: Cheryl Bunch

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Kerry Tate, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Thekkekalathil Chandrasekhar, Chemist Administrator

Date Certified: 21-NOV-2019 09:53



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: Escambia River upstream of Mitchell Creek

Collection Date/Time: 10/30/2019 10:00

Field ID: G4NW0404

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2132731	EPA 200.7 Rev. 4.4	Calcium	12.2		mg/L	P373645	
		Iron	940		ug/L	P373645	
		Magnesium	1.54		mg/L	P373645	
		Potassium	1.5		mg/L	P373645	
		Sodium	11.9		mg/L	P373645	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P373645	
		Arsenic	0.57		ug/L	P373645	
		Cadmium	0.020	U	ug/L	P373645	
		Chromium	0.82	I	ug/L	P373645	
		Copper	0.42	I	ug/L	P373645	
		Lead	0.27	I	ug/L	P373645	
		Nickel	0.60	I	ug/L	P373645	
		Silver	0.010	U	ug/L	P373645	

Sample Location: Escambia River downstream of Cotton Lake

Collection Date/Time: 10/30/2019 10:45

Field ID: G4NW0403

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2132707	EPA 180.1 Rev. 2.0	Turbidity	7.8		NTU	P373529	
	EPA 300.0 Rev. 2.1	Chloride	8.0		mg Cl/L	P374074	
		Sulfate	14		mg SO4/L	P374079	
		Color (true)	29		PCU	P373534	
	SM 2320 B-97	Total Alkalinity	31		mg CaCO3/L	P373971	
	SM 2540 C-97	TDS	87		mg/L	P373882	
	SM 2540 D-97	TSS	10		mg/L	P373640	
	SM 4500 F-C-97	Fluoride	0.037	I	mg F/L	P373975	
2132708	EPA 350.1 Rev. 2.0	Ammonia-N	0.087		mg N/L	P373638	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.36		mg N/L	P373859	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.45		mg N/L	P373566	
	EPA 365.1 Rev. 2.0	Total-P	0.053		mg P/L	P373920	
	SM 5310 B-00	Organic Carbon	3.7		mg C/L	P373609	
2132709	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.031		mg P/L	P373549	
2132732	EPA 200.7 Rev. 4.4	Calcium	11.7		mg/L	P373645	
		Iron	770		ug/L	P373645	
		Magnesium	1.51		mg/L	P373645	
		Potassium	1.5		mg/L	P373645	
		Sodium	11.2		mg/L	P373645	
		Zinc	5.0	U	ug/L	P373645	
	EPA 200.8 Rev. 5.4	Arsenic	0.55		ug/L	P373645	
		Cadmium	0.020	U	ug/L	P373645	
		Chromium	0.44	I	ug/L	P373645	
		Copper	0.40	U	ug/L	P373645	
		Lead	0.23	I	ug/L	P373645	
		Nickel	0.50	U	ug/L	P373645	
		Silver	0.010	U	ug/L	P373645	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample

Sample Location: Escambia River downstream of Tenmile Creek Collection Date/Time: 10/30/2019 11:35

Field ID: G4NW0006

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2132710	EPA 180.1 Rev. 2.0	Turbidity	9.2	A	NTU	P373530	
	EPA 300.0 Rev. 2.1	Chloride	7.6		mg Cl/L	P374074	
		Sulfate	13		mg SO4/L	P374079	
		Color (true)	30	A	PCU	P373535	
	SM 2320 B-97	Total Alkalinity	28		mg CaCO3/L	P373971	
	SM 2540 C-97	TDS	80		mg/L	P373882	
	SM 2540 D-97	TSS	13		mg/L	P373640	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P373975	
2132711	EPA 350.1 Rev. 2.0	Ammonia-N	0.054		mg N/L	P373778	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.30		mg N/L	P373859	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.48		mg N/L	P373566	
	EPA 365.1 Rev. 2.0	Total-P	0.054		mg P/L	P373920	
	SM 5310 B-00	Organic Carbon	3.7		mg C/L	P373609	
2132712	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.024		mg P/L	P373549	
2132733	EPA 200.7 Rev. 4.4	Barium	34.6		ug/L	P373645	
		Calcium	10.7		mg/L	P373645	
		Iron	1.12E+03		ug/L	P373645	
		Magnesium	1.55		mg/L	P373645	
		Potassium	1.4		mg/L	P373645	
		Sodium	10.1		mg/L	P373645	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P373645	
		Aluminum	447		ug/L	P373645	
		Antimony	0.050	U	ug/L	P373645	
		Arsenic	0.65		ug/L	P373645	
		Boron**	12.5		ug/L	P373645	
		Cadmium	0.020	U	ug/L	P373645	
		Chromium	0.99	I	ug/L	P373645	
		Copper	0.90		ug/L	P373645	
		Lead	0.40		ug/L	P373645	
		Nickel	0.65	I	ug/L	P373645	
		Selenium	0.20	U	ug/L	P373645	
		Silver	0.010	U	ug/L	P373645	
		Thallium	0.10	U	ug/L	P373645	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Escambia River 100 Meters upstream of HWY 90 Bridge

Collection Date/Time: 10/30/2019 12:40

Field ID: G4NW0009

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2132713	EPA 180.1 Rev. 2.0	Turbidity	4.0		NTU	P373530	
	EPA 300.0	Bromide	9.3		mg Br/L	P373777	
	EPA 300.0 Rev. 2.1	Chloride	2.6E+03		mg Cl/L	P374074	
	SM 2320 B-97	Total Alkalinity	42		mg CaCO3/L	P373971	
	SM 2540 D-97	TSS	2	U	mg/L	P373641	
	SM 4500 F-C-97	Fluoride	0.19		mg F/L	P373975	
2132714	EPA 350.1 Rev. 2.0	Ammonia-N	0.063		mg N/L	P373639	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.40		mg N/L	P373833	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.32		mg N/L	P373670	
	EPA 365.1 Rev. 2.0	Total-P	0.031		mg P/L	P373870	
	SM 5310 B-00	Organic Carbon	3.8		mg C/L	P373609	
2132715	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.010		mg P/L	P373550	
2132727	EPA 8321B	Aldicarb	0.020	U	ug/L	P373553	
		Aldicarb Sulfone	0.0020	U	ug/L	P373553	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P373553	
		Carbaryl	0.0020	U	ug/L	P373553	
		Carbofuran	0.0020	U	ug/L	P373553	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P373553	
		Methiocarb	0.0020	U	ug/L	P373553	
		Methomyl	0.0020	U	ug/L	P373553	
		Oxamyl	0.0020	U	ug/L	P373553	
		Propoxur	0.0020	U	ug/L	P373553	
2132728		Acesulfame K**	0.10	U	ug/L	P373607	
		2,4-D	0.031	J	ug/L	P373553	MS
		AMPA**	0.10	U	ug/L	P373607	
		Sucralose**	0.050	J	ug/L	P373607	SUR
		Acetaminophen**	0.0080	U	ug/L	P373553	
		Acetamiprid**	0.0020	U	ug/L	P373553	
		Endothal**	0.25	U	ug/L	P373607	
		Glufosinate**	0.10	U	ug/L	P373607	
		Glyphosate**	0.10	U	ug/L	P373607	
		Afidopyropen**	0.0020	UJ	ug/L	P373553	
		Bentazon	8.0E-04	U	ug/L	P373553	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P373553	
		Carbamazepine**	8.0E-04	U	ug/L	P373553	
		Clothianidin**	0.0020	U	ug/L	P373553	
		Dinotefuran**	0.0020	U	ug/L	P373553	
		Diuron	0.035		ug/L	P373553	
		Fenuron	0.016	U	ug/L	P373553	
		Fluridone**	8.0E-04	U	ug/L	P373553	
		Imazapyr**	0.071		ug/L	P373553	
		Hydrocodone**	0.0020	U	ug/L	P373553	

Field ID: G4NW0009

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2132728	EPA 8321B	Ibuprofen**	0.020	U	ug/L	P373553	
		Imidacloprid	0.0020	UJ	ug/L	P373553	MS
		Linuron	0.0040	U	ug/L	P373553	
		Mandestrobin**	0.0020	UJ	ug/L	P373553	
		MCP	0.0020	UJ	ug/L	P373553	MS
		Naproxen**	0.0080	U	ug/L	P373553	
		Primidone**	0.0040	U	ug/L	P373553	
		Pyraclostrobin**	0.0020	U	ug/L	P373553	
		Thiamethoxam**	0.0020	U	ug/L	P373553	
		Tolfenpyrad**	0.0020	U	ug/L	P373553	
		Triclopyr**	0.0040	U	ug/L	P373553	
2132729	EPA 8270E	Aldrin	4.8	U	ng/L	P373744	
		Alpha-BHC	2.4	U	ng/L	P373744	
		Alpha-Chlordane	1.2	U	ng/L	P373744	
		Beta-BHC	12	U	ng/L	P373744	
		Bifenthrin**	4.8	U	ng/L	P373744	
		Delta-BHC	9.7	U	ng/L	P373744	
		Gamma-BHC	9.7	U	ng/L	P373744	
		Carbophenothion	12	U	ng/L	P373744	
		Chlorothalonil	2.4	U	ng/L	P373744	RPD
		Cis-Nonachlor**	1.2	U	ng/L	P373744	
		Cypermethrin	24	U	ng/L	P373744	
		DDD-p,p'	7.2	U	ng/L	P373744	
		DDE-p,p'	7.2	U	ng/L	P373744	
		DDT-p,p'	8.5	U	ng/L	P373744	
		Dicofol	36	U	ng/L	P373744	
		Dieldrin	4.8	U	ng/L	P373744	
		Endosulfan I	4.8	U	ng/L	P373744	
		Endosulfan II	4.8	U	ng/L	P373744	
		Endosulfan Sulfate	2.4	U	ng/L	P373744	
		Endrin	2.4	U	ng/L	P373744	
		Endrin Aldehyde	2.4	U	ng/L	P373744	
		Endrin Ketone	2.4	U	ng/L	P373744	
		Ethalfuralin**	3.6	U	ng/L	P373744	
		Gamma-Chlordane	1.2	U	ng/L	P373744	
		Heptachlor	1.8	U	ng/L	P373744	
		Heptachlor Epoxide	2.4	U	ng/L	P373744	
		Hexachlorobenzene	2.4	U	ng/L	P373744	
		Methoxychlor	4.8	U	ng/L	P373744	
		Mirex	2.4	U	ng/L	P373744	
		Permethrin	12	U	ng/L	P373744	
		Trans-Nonachlor**	1.2	U	ng/L	P373744	
		Trifluralin	3.0	U	ng/L	P373744	
	EPA 8276	Chlordane	6.0	U	ng/L	P373744	
		Toxaphene	36	UJ	ng/L	P373744	CCV

Field ID: G4NW0009

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2132730	EPA 8270E	Acetochlor	0.26	U	ng/L	P373575	
		Alachlor	0.26	U	ng/L	P373575	
		Ametryn	0.63	U	ng/L	P373575	
		Atrazine	6.6		ng/L	P373575	
		Atrazine Desethyl	3.5	I	ng/L	P373575	
		Azinphos Methyl	5.2	U	ng/L	P373575	
		Bromacil	0.52	UJ	ng/L	P373575	MS
		Butylate	0.42	U	ng/L	P373575	
		Chlorpyrifos Ethyl	0.26	U	ng/L	P373575	
		Chlorpyrifos Methyl	0.10	U	ng/L	P373575	
		Cyanazine	3.4	U	ng/L	P373575	
		Demeton	7.3	U	ng/L	P373575	
		Diazinon	0.13	U	ng/L	P373575	
		Dimethenamid**	0.10	U	ng/L	P373575	
		Disulfoton	0.52	U	ng/L	P373575	
		Dithiopyr**	0.10	U	ng/L	P373575	
		EPTC	1.3	U	ng/L	P373575	
		Ethion	0.16	UJ	ng/L	P373575	MS
		Ethoprop	0.10	U	ng/L	P373575	
		Fenamiphos	0.52	U	ng/L	P373575	
		Fipronil	0.26	U	ng/L	P373575	
		Fipronil Desulfinyl**	0.13	UJ	ng/L	P373575	LCS
		Fipronil Sulfide	0.16	U	ng/L	P373575	
		Fipronil Sulfone	0.16	U	ng/L	P373575	
		Fonofos	0.21	U	ng/L	P373575	
		Hexazinone	0.52	U	ng/L	P373575	
		Malathion	0.37	U	ng/L	P373575	
		Metalaxyl	0.31	U	ng/L	P373575	
		Metolachlor	1.9	I	ng/L	P373575	
		Metribuzin	0.78	U	ng/L	P373575	
		Mevinphos	0.52	U	ng/L	P373575	
		Molinate	0.31	U	ng/L	P373575	
		Norflurazon	0.52	U	ng/L	P373575	
		Oxadiazon**	0.10	U	ng/L	P373575	
		Parathion Ethyl	0.26	U	ng/L	P373575	
		Parathion Methyl	0.57	U	ng/L	P373575	
		Pendimethalin	1.0	U	ng/L	P373575	
		Phorate	0.26	U	ng/L	P373575	
		Prodiamine**	0.18	UJ	ng/L	P373575	MS
		Prometon	0.94	U	ng/L	P373575	
		Prometryn	0.21	U	ng/L	P373575	
		Simazine	0.79	I	ng/L	P373575	
		Tebuconazole**	0.52	U	ng/L	P373575	
		Terbufos	0.10	U	ng/L	P373575	
		Terbutylazine	0.44	U	ng/L	P373575	

Field ID: G4NW0009

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2132734	EPA 200.7 Rev. 4.4	Iron	470		ug/L	P373645	
		Manganese	73.1		ug/L	P373645	
		Zinc	5.0	U	ug/L	P373645	
	EPA 200.8 Rev. 5.4	Aluminum	186		ug/L	P373645	
		Antimony	0.069	I	ug/L	P373645	
		Arsenic	0.56		ug/L	P373645	
		Cadmium	0.119		ug/L	P373645	
		Chromium	0.40	U	ug/L	P373645	
		Copper	0.76	I	ug/L	P373645	
		Lead	0.20	U	ug/L	P373645	
		Nickel	0.50	U	ug/L	P373645	
		Selenium	0.20	U	ug/L	P373645	
		Silver	0.010	U	ug/L	P373645	
		Thallium	0.10	U	ug/L	P373645	

Ref. Method and Comment:

SM 2540 D-97: 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. Refer to the Lab Analysis Report for an explanation of QC Codes.

EPA 8321B: Results confirmed in sample duplicate. Refer to the Lab Analysis Report for an explanation of QC Codes.

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

EPA 8270E: MS accuracy for atrazine not assessed due to high content of this parameter 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: P373529

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P373530

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P373645

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: P373645

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
Batch ID: P373777

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P374074

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: P374079

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P373638

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P373639

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P373778

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P373833

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P373859

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P373566

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P373670

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P373870

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

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Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P373920

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P373549

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P373550

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

Reference Method: EPA 8270E
 Batch ID: P373575

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	5.0	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
Cyanazine	3.2	U	ng/L
Demeton	7.0	U	ng/L
Diazinon	0.12	U	ng/L
Dimethenamid	0.10	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.10	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.50	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.30	U	ng/L
Metolachlor	0.50	U	ng/L
Metribuzin	0.75	U	ng/L
Mevinphos	0.50	U	ng/L
Molinate	0.30	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.10	U	ng/L

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Reference Method: EPA 8270E
Batch ID: P373575

Component	Result	Code	Units
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
Simazine	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbutylazine	0.42	U	ng/L

Reference Method: EPA 8270E
Batch ID: P373744

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
Bifenthrin	4.0	U	ng/L
Carbophenothion	10	U	ng/L
Chlorothalonil	2.0	U	ng/L
Cis-Nonachlor	1.0	U	ng/L
Cypermethrin	20	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
Methoxychlor	4.0	U	ng/L
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L
Trans-Nonachlor	1.0	U	ng/L
Trifluralin	2.5	U	ng/L

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Method Blank Results

Reference Method: EPA 8276

Batch ID: P373744

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

Reference Method: EPA 8321B

Batch ID: P373553

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

Reference Method: EPA 8321B

Batch ID: P373607

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P373607

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P373534

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P373535

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P373971

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

Reference Method: SM 2540 C-97
Batch ID: P373882

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P373640

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P373641

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P373975

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P373609

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: P373645

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	102		P	85 - 115
Calcium	102		P	85 - 115
Iron	105		P	85 - 115
Magnesium	109		P	85 - 115
Manganese	100		P	85 - 115
Potassium	106		P	85 - 115
Sodium	99.9		P	85 - 115
Zinc	100		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P373645

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	98.1		P	85 - 115
Antimony	103		P	85 - 115
Arsenic	98.7		P	85 - 115
Boron	97.7		P	85 - 115
Cadmium	97.4		P	85 - 115
Chromium	98.0		P	85 - 115
Copper	94.7		P	85 - 115
Lead	98.5		P	85 - 115
Nickel	97.6		P	85 - 115
Selenium	93.5		P	85 - 115
Silver	103		P	85 - 115
Thallium	103		P	85 - 115

Reference Method: EPA 300.0
Batch ID: P373777

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P374074

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P374079

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	98.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P373638

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P373639

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P373778

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P373833

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	96.6		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P373859

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P373566

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P373670

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P373870

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P373920

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P373549

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P373550

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

Reference Method: EPA 8270E
Batch ID: P373575

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	102	115	P/P	69 - 122
Alachlor	99.6	109	P/P	71 - 120
Ametryn	101	125	P/P	47 - 138
Atrazine	101	107	P/P	74 - 124
Atrazine Desethyl	99.2	115	P/P	38 - 138
Azinphos Methyl	122	123	P/P	69 - 154
Bromacil	110	119	P/P	39 - 121
Butylate	66.3	65.5	P/P	27 - 87.0
Chlorpyrifos Ethyl	98.0	102	P/P	69 - 118
Chlorpyrifos Methyl	94.6	101	P/P	70 - 120
Cyanazine	156	180	P/P	20 - 250
Demeton	83.2	89.3	P/P	39 - 118
Diazinon	101	114	P/P	68 - 127
Dimethenamid	101	113	P/P	66 - 125
Disulfoton	92.9	104	P/P	52 - 126
Dithiopyr	99.2	109	P/P	67 - 127
EPTC	68.1	70.2	P/P	24 - 88.0
Ethion	97.8	99.9	P/P	51 - 132
Ethoprop	93.4	105	P/P	58 - 117
Fenamiphos	106	104	P/P	38 - 139
Fipronil	110	123	P/P	61 - 124
Fipronil Desulfinyl	110	122	P/F	47 - 120
Fipronil Sulfide	97.6	104	P/P	56 - 119
Fipronil Sulfone	103	113	P/P	50 - 117
Fonofos	90.8	98.4	P/P	60 - 121
Hexazinone	106	119	P/P	55 - 137
Malathion	94.8	106	P/P	66 - 126
Metalaxyl	103	113	P/P	33 - 140
Metolachlor	99.5	107	P/P	69 - 119
Metribuzin	185	186	P/P	31 - 238
Mevinphos	92.7	101	P/P	42 - 113
Molinate	76.1	78.5	P/P	32 - 96.0
Norflurazon	111	119	P/P	54 - 123
Oxadiazon	96.0	103	P/P	63 - 128
Parathion Ethyl	91.6	98.2	P/P	72 - 111
Parathion Methyl	99.9	107	P/P	74 - 126
Pendimethalin	82.6	85.1	P/P	61 - 131
Phorate	90.6	98.5	P/P	51 - 115
Prodiamine	43.8	44.0	P/P	38 - 144
Prometon	91.3	96.7	P/P	54 - 119
Prometryn	97.1	103	P/P	63 - 120
Simazine	103	110	P/P	75 - 126
Tebuconazole	84.5	98.8	P/P	20 - 119
Terbufos	91.3	99.7	P/P	64 - 116
Terbutylazine	94.7	102	P/P	73 - 117

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P373744

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	54.0	51.0	P/P	20 - 93.0
Alpha-BHC	101	99.3	P/P	55 - 133
Alpha-Chlordane	94.7	88.5	P/P	58 - 112
Beta-BHC	111	116	P/P	54 - 168
Bifenthrin	108	108	P/P	30 - 134
Carbophenothion	79.7	78.4	P/P	26 - 147
Chlorothalonil	139	127	P/P	20 - 155
Cis-Nonachlor	100	93.4	P/P	54 - 115
Cypermethrin	113	116	P/P	40 - 137
DDD-p,p'	102	98.2	P/P	65 - 129
DDE-p,p'	95.3	86.3	P/P	57 - 116
DDT-p,p'	87.3	86.5	P/P	53 - 133
Delta-BHC	122	123	P/P	59 - 178
Dicofol	101	102	P/P	24 - 138
Dieldrin	100	93.3	P/P	60 - 120
Endosulfan I	106	98.8	P/P	64 - 118
Endosulfan II	118	100	P/P	58 - 142
Endosulfan Sulfate	109	113	P/P	60 - 127
Endrin	103	98.4	P/P	59 - 122
Endrin Aldehyde	114	106	P/P	49 - 132
Endrin Ketone	108	110	P/P	64 - 121
Ethalfuralin	98.5	98.5	P/P	60 - 126
Gamma-BHC	103	101	P/P	57 - 154
Gamma-Chlordane	93.0	87.6	P/P	56 - 110
Heptachlor	92.5	86.5	P/P	46 - 96.0
Heptachlor Epoxide	98.5	91.7	P/P	61 - 112
Hexachlorobenzene	86.7	88.8	P/P	44 - 98.0
Methoxychlor	97.1	96.0	P/P	63 - 134
Mirex	83.1	83.1	P/P	45 - 100
Permethrin	102	103	P/P	53 - 115
Trans-Nonachlor	94.7	87.9	P/P	47 - 110
Trifluralin	96.4	96.0	P/P	39 - 142

Reference Method: EPA 8276
Batch ID: P373744

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	92.6	93.3	P/P	43 - 128
Toxaphene	80.4	78.4	P/P	38 - 140

Reference Method: EPA 8321B
Batch ID: P373553

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	136		P	40 - 160
3-Hydroxycarbofuran	91.8		P	30 - 150
Acetaminophen	83.8		P	30 - 160
Acetamiprid	92.7		P	40 - 160
Afidopyropen	97.4		P	40 - 160
Aldicarb	90.3		P	30 - 150
Aldicarb Sulfone	89.8		P	30 - 150
Aldicarb Sulfoxide	95.8		P	30 - 150

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Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P373553

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Bentazon	105		P	30 - 160
Benzovindiflupyr	94.2		P	40 - 160
Carbamazepine	103		P	40 - 160
Carbaryl	85.9		P	30 - 150
Carbofuran	92.7		P	30 - 150
Clothianidin	92.3		P	40 - 160
Dinotefuran	93.2		P	40 - 160
Diuron	100		P	40 - 160
Fenuron	99.4		P	40 - 160
Fluridone	96.4		P	40 - 160
Hydrocodone	89.0		P	40 - 160
Ibuprofen	93.5		P	30 - 160
Imazapyr	92.6		P	40 - 160
Imidacloprid	111		P	40 - 160
Linuron	82.0		P	40 - 160
Mandestrobin	93.1		P	40 - 160
MCPP	149		P	40 - 160
Methiocarb	70.8		P	30 - 150
Methomyl	91.9		P	30 - 150
Naproxen	73.0		P	40 - 160
Oxamyl	100		P	30 - 150
Primidone	92.3		P	40 - 160
Propoxur	89.8		P	30 - 150
Pyraclostrobin	83.8		P	30 - 160
Thiamethoxam	98.8		P	40 - 160
Tolfenpyrad	52.0		P	40 - 160
Triclopyr	117		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P373607

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	51.3		P	40 - 150
AMPA	85.5		P	40 - 150
Endothall	97.1		P	40 - 150
Glufosinate	103		P	40 - 150
Glyphosate	89.7		P	40 - 140
Sucralose	86.2		P	40 - 150

Reference Method: SM 2120 B
Batch ID: P373534

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.3		P	85 - 115

Reference Method: SM 2120 B
Batch ID: P373535

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.2		P	85 - 115

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-97
Batch ID: P373971

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	100		P	98 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P373975

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.8		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P373609

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	103		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P373645

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132639	Barium	104	104	P/P	80 - 120
2132639	Calcium	103		P	80 - 120
2132639	Iron	105	106	P/P	80 - 120
2132639	Magnesium	108	110	P/P	80 - 120
2132639	Manganese	101	101	P/P	80 - 120
2132639	Potassium	104	105	P/P	80 - 120
2132639	Sodium	101	104	P/P	80 - 120
2132639	Zinc	104	104	P/P	80 - 120
2132829	Barium	105		P	80 - 120
2132829	Calcium	101		P	80 - 120
2132829	Iron	107		P	80 - 120
2132829	Magnesium	103		P	80 - 120
2132829	Manganese	103		P	80 - 120
2132829	Potassium	104		P	80 - 120
2132829	Sodium	98.7		P	80 - 120
2132829	Zinc	106		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P373645

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132639	Aluminum	99.0	97.7	P/P	80 - 120
2132639	Antimony	104	104	P/P	80 - 120
2132639	Arsenic	101	101	P/P	80 - 120
2132639	Boron	98.2	99.0	P/P	80 - 120
2132639	Cadmium	100	97.7	P/P	80 - 120
2132639	Chromium	101	101	P/P	80 - 120
2132639	Copper	94.3	91.9	P/P	80 - 120
2132639	Lead	102	102	P/P	80 - 120
2132639	Nickel	100	100	P/P	80 - 120
2132639	Selenium	87.0	85.9	P/P	80 - 120
2132639	Silver	104	103	P/P	80 - 120
2132639	Thallium	108	108	P/P	80 - 120
2132829	Aluminum	96.9		P	80 - 120
2132829	Antimony	105		P	80 - 120
2132829	Arsenic	103		P	80 - 120
2132829	Boron	97.1		P	80 - 120
2132829	Cadmium	101		P	80 - 120
2132829	Chromium	100		P	80 - 120
2132829	Copper	99.7		P	80 - 120
2132829	Lead	102		P	80 - 120
2132829	Nickel	97.2		P	80 - 120
2132829	Selenium	94.9		P	80 - 120
2132829	Silver	103		P	80 - 120
2132829	Thallium	108		P	80 - 120

Reference Method: EPA 300.0
Batch ID: P373777

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132743	Bromide	96.8	98.4	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P374074

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132547	Chloride	99.4	99.3	P/P	90 - 110
2132648	Chloride	98.9		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P374079

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132547	Sulfate	99.5	99.0	P/P	90 - 110
2132648	Sulfate	99.3		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P373638

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132692	Ammonia-N	97.7	99.6	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P373639

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2131860	Ammonia-N	102	103	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P373778

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132778	Ammonia-N	100	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P373833

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132417	Kjeldahl Nitrogen	103	98.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P373859

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132708	Kjeldahl Nitrogen	97.7	95.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P373566

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132693	NO2NO3-N	100	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P373670

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132714	NO2NO3-N	97.8		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P373870

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132714	Total-P	105	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P373549

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132712	O-Phosphate-P	96.6	97.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P373550

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132715	O-Phosphate-P	94.0	93.1	P/P	90 - 110

Reference Method: EPA 8270E
 Batch ID: P373575

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132730	Acetochlor	102	101	P/P	63 - 129
2132730	Alachlor	113	100	P/P	65 - 127
2132730	Ametryn	115	114	P/P	40 - 164
2132730	Atrazine Desethyl	120	122	P/P	14 - 157
2132730	Azinphos Methyl	109	106	P/P	49 - 180
2132730	Bromacil	115	144	P/F	48 - 130
2132730	Butylate	58.2	58.7	P/P	10 - 94.0
2132730	Chlorpyrifos Ethyl	86.1	91.8	P/P	58 - 123
2132730	Chlorpyrifos Methyl	98.0	95.2	P/P	58 - 125
2132730	Cyanazine	198	193	P/P	24 - 253
2132730	Demeton	90.5	90.8	P/P	25 - 149
2132730	Diazinon	119	116	P/P	59 - 144
2132730	Dimethenamid	90.5	87.1	P/P	46 - 139
2132730	Disulfoton	110	109	P/P	54 - 132
2132730	Dithiopyr	103	97.7	P/P	64 - 130
2132730	EPTC	65.5	63.8	P/P	10 - 92.0
2132730	Ethion	24.5	26.9	F/F	30 - 148
2132730	Ethoprop	105	105	P/P	50 - 130
2132730	Fenamiphos	62.6	61.8	P/P	49 - 142
2132730	Fipronil	109	109	P/P	46 - 140
2132730	Fipronil Desulfinyl	110	105	P/P	30 - 121
2132730	Fipronil Sulfide	106	95.1	P/P	31 - 136
2132730	Fipronil Sulfone	90.6	92.1	P/P	16 - 136
2132730	Fonofos	108	110	P/P	55 - 129
2132730	Hexazinone	116	110	P/P	56 - 141
2132730	Malathion	102	86.3	P/P	56 - 135
2132730	Metalaxyl	99.8	93.8	P/P	54 - 135
2132730	Metolachlor	98.8	94.7	P/P	51 - 140
2132730	Metribuzin	247	237	P/P	45 - 254
2132730	Mevinphos	99.9	102	P/P	33 - 131
2132730	Molinate	77.7	77.9	P/P	14 - 98.0
2132730	Norflurazon	100	98.6	P/P	34 - 136
2132730	Oxadiazon	88.9	86.9	P/P	67 - 116
2132730	Parathion Ethyl	93.2	92.1	P/P	66 - 118

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P373575

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132730	Parathion Methyl	104	105	P/P	64 - 136
2132730	Pendimethalin	85.9	83.8	P/P	59 - 144
2132730	Phorate	111	107	P/P	42 - 130
2132730	Prodiamine	44.5	41.6	P/F	42 - 148
2132730	Prometon	89.3	85.9	P/P	59 - 134
2132730	Prometryn	101	99.2	P/P	54 - 135
2132730	Simazine	112	113	P/P	53 - 156
2132730	Tebuconazole	26.2	26.6	P/P	10 - 131
2132730	Terbufos	117	116	P/P	57 - 131
2132730	Terbutylazine	99.0	95.1	P/P	68 - 125

Reference Method: EPA 8270E
Batch ID: P373744

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2133112	Aldrin	67.0	65.7	P/P	25 - 92.0
2133112	Alpha-BHC	103	102	P/P	48 - 150
2133112	Alpha-Chlordane	88.2	85.6	P/P	50 - 115
2133112	Beta-BHC	107	111	P/P	39 - 184
2133112	Bifenthrin	104	106	P/P	46 - 116
2133112	Carbophenothion	114	105	P/P	27 - 180
2133112	Chlorothalonil	14.0	21.0	P/P	10 - 216
2133112	Cis-Nonachlor	90.4	87.3	P/P	55 - 112
2133112	Cypermethrin	116	110	P/P	40 - 153
2133112	DDD-p,p'	92.3	90.7	P/P	53 - 128
2133112	DDE-p,p'	89.5	87.5	P/P	48 - 116
2133112	DDT-p,p'	87.8	86.5	P/P	47 - 128
2133112	Delta-BHC	134	131	P/P	48 - 221
2133112	Dicofol	95.1	102	P/P	10 - 147
2133112	Dieldrin	90.7	87.4	P/P	48 - 128
2133112	Endosulfan I	100	95.4	P/P	58 - 126
2133112	Endosulfan II	107	102	P/P	50 - 150
2133112	Endosulfan Sulfate	92.2	93.4	P/P	56 - 130
2133112	Endrin	90.9	89.8	P/P	50 - 126
2133112	Endrin Aldehyde	84.8	86.2	P/P	12 - 145
2133112	Endrin Ketone	95.8	95.4	P/P	59 - 132
2133112	Ethalfuralin	98.2	96.6	P/P	65 - 122
2133112	Gamma-BHC	111	110	P/P	40 - 190
2133112	Gamma-Chlordane	85.8	83.4	P/P	50 - 112
2133112	Heptachlor	83.8	81.9	P/P	41 - 98.0
2133112	Heptachlor Epoxide	91.1	88.4	P/P	55 - 117
2133112	Hexachlorobenzene	84.9	89.0	P/P	47 - 91.0
2133112	Methoxychlor	95.7	93.9	P/P	55 - 133
2133112	Mirex	86.6	86.7	P/P	44 - 101
2133112	Permethrin	108	101	P/P	52 - 124
2133112	Trans-Nonachlor	86.5	83.6	P/P	53 - 99.0
2133112	Trifluralin	96.6	96.5	P/P	10 - 201

Reference Method: EPA 8276
Batch ID: P373744

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

Reference Method: EPA 8276
Batch ID: P373744

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2133060	Chlordane	69.7	70.4	P/P	34 - 136
2133060	Toxaphene	71.4	64.0	P/P	22 - 152

Reference Method: EPA 8321B
Batch ID: P373553

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132727	3-Hydroxycarbofuran	101	91.8	P/P	30 - 150
2132727	Aldicarb	80.5	94.6	P/P	30 - 150
2132727	Aldicarb Sulfone	111	95.8	P/P	30 - 150
2132727	Aldicarb Sulfoxide	48.7	42.4	P/P	30 - 150
2132727	Carbaryl	89.3	102	P/P	30 - 150
2132727	Carbofuran	81.8	80.9	P/P	30 - 150
2132727	Methiocarb	66.5	75.3	P/P	30 - 150
2132727	Methomyl	90.4	85.5	P/P	30 - 150
2132727	Oxamyl	106	95.1	P/P	30 - 150
2132727	Propoxur	82.0	80.7	P/P	30 - 150
2132728	2,4-D	157	162	P/F	40 - 160
2132728	Acetaminophen	92.6	92.4	P/P	30 - 160
2132728	Acetamiprid	123	119	P/P	40 - 160
2132728	Afidopyropen	118	114	P/P	40 - 160
2132728	Bentazon	83.7	85.5	P/P	30 - 160
2132728	Benzovindiflupyr	101	105	P/P	40 - 160
2132728	Carbamazepine	117	116	P/P	40 - 160
2132728	Clothianidin	113	105	P/P	40 - 160
2132728	Dinotefuran	124	123	P/P	40 - 160
2132728	Diuron	103	105	P/P	40 - 160
2132728	Fenuron	104	103	P/P	40 - 160
2132728	Fluridone	106	111	P/P	40 - 160
2132728	Hydrocodone	108	111	P/P	40 - 160
2132728	Ibuprofen	106	112	P/P	30 - 160
2132728	Imazapyr	130	121	P/P	40 - 160
2132728	Imidacloprid	188	186	F/F	40 - 160
2132728	Linuron	85.2	93.8	P/P	40 - 160
2132728	Mandestrobin	102	104	P/P	40 - 160
2132728	MCP	169	165	F/F	40 - 160
2132728	Naproxen	106	105	P/P	40 - 160
2132728	Primidone	112	117	P/P	40 - 160
2132728	Pyraclostrobin	99.9	98.6	P/P	30 - 160
2132728	Thiamethoxam	153	153	P/P	40 - 160
2132728	Tolfenpyrad	65.6	64.9	P/P	40 - 160
2132728	Triclopyr	136	130	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P373607

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132580	Acesulfame K	79.0	80.8	P/P	40 - 150
2132580	AMPA	94.5	91.7	P/P	40 - 150
2132580	Endothall	83.3	87.3	P/P	40 - 150
2132580	Glufosinate	100	98.0	P/P	40 - 150
2132580	Glyphosate	80.5	88.8	P/P	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P373607

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132580	Sucralose	73.8	96.2	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P373975

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132775	Fluoride	100	97.6	P/P	89 - 106

Reference Method: SM 5310 B-00
Batch ID: P373609

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132647	Organic Carbon	105	105	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P373529

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132618	Turbidity	2.96	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P373530

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132710	Turbidity	2.29	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P373645

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132639	Barium	0.0785	Spike	P	0 - 20
2132639	Calcium	0.207	Spike	P	0 - 20
2132639	Iron	0.659	Spike	P	0 - 20
2132639	Magnesium	0.961	Spike	P	0 - 20
2132639	Manganese	0.0132	Spike	P	0 - 20
2132639	Potassium	0.317	Spike	P	0 - 20
2132639	Sodium	1.58	Spike	P	0 - 20
2132639	Zinc	0.289	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P373645

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132639	Aluminum	1.01	Spike	P	0 - 20
2132639	Antimony	0.179	Spike	P	0 - 20
2132639	Arsenic	0.0211	Spike	P	0 - 20
2132639	Boron	0.697	Spike	P	0 - 20
2132639	Cadmium	2.56	Spike	P	0 - 20
2132639	Chromium	0.638	Spike	P	0 - 20
2132639	Copper	2.47	Spike	P	0 - 20
2132639	Lead	0.534	Spike	P	0 - 20
2132639	Nickel	0.237	Spike	P	0 - 20
2132639	Selenium	1.23	Spike	P	0 - 20
2132639	Silver	1.05	Spike	P	0 - 20
2132639	Thallium	0.615	Spike	P	0 - 20

Reference Method: EPA 300.0
Batch ID: P373777

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132743	Bromide	0.815	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P374074

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132547	Chloride	0.0781	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P374079

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132547	Sulfate	0.518	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P373638

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132692	Ammonia-N	1.82	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P373639

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2131860	Ammonia-N	0.806	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P373778

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132778	Ammonia-N	0.577	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P373833

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132417	Kjeldahl Nitrogen	3.85	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P373859

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132708	Kjeldahl Nitrogen	2.14	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P373566

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132693	NO2NO3-N	0.0	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P373670

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132714	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P373870

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132714	Total-P	0.758	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P373920

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132663	Total-P	1.80	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P373549

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132712	O-Phosphate-P	0.494	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P373550

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132715	O-Phosphate-P	0.867	Spike	P	0 - 20

Reference Method: EPA 8270E
 Batch ID: P373575

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132730	Acetochlor	1.05	Spike	P	0 - 30
2132730	Alachlor	12.1	Spike	P	0 - 30
2132730	Ametryn	0.821	Spike	P	0 - 30
2132730	Atrazine	2.52	Spike	P	0 - 30
2132730	Atrazine Desethyl	1.19	Spike	P	0 - 30
2132730	Azinphos Methyl	2.28	Spike	P	0 - 30
2132730	Bromacil	22.1	Spike	P	0 - 30
2132730	Butylate	0.811	Spike	P	0 - 30
2132730	Chlorpyrifos Ethyl	6.34	Spike	P	0 - 30
2132730	Chlorpyrifos Methyl	2.92	Spike	P	0 - 30
2132730	Cyanazine	2.91	Spike	P	0 - 30
2132730	Demeton	0.300	Spike	P	0 - 30
2132730	Diazinon	2.93	Spike	P	0 - 30
2132730	Dimethenamid	3.74	Spike	P	0 - 30
2132730	Disulfoton	0.170	Spike	P	0 - 30
2132730	Dithiopyr	5.48	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P373575

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132730	EPTC	2.55	Spike	P	0 - 30
2132730	Ethion	9.56	Spike	P	0 - 30
2132730	Ethoprop	0.0550	Spike	P	0 - 30
2132730	Fenamiphos	1.36	Spike	P	0 - 30
2132730	Fipronil	0.125	Spike	P	0 - 30
2132730	Fipronil Desulfinyl	4.14	Spike	P	0 - 30
2132730	Fipronil Sulfide	10.5	Spike	P	0 - 30
2132730	Fipronil Sulfone	1.66	Spike	P	0 - 30
2132730	Fonofos	2.44	Spike	P	0 - 30
2132730	Hexazinone	5.19	Spike	P	0 - 30
2132730	Malathion	16.3	Spike	P	0 - 30
2132730	Metaxyl	6.21	Spike	P	0 - 30
2132730	Metolachlor	3.70	Spike	P	0 - 30
2132730	Metribuzin	4.00	Spike	P	0 - 30
2132730	Mevinphos	2.38	Spike	P	0 - 30
2132730	Molinate	0.143	Spike	P	0 - 30
2132730	Norflurazon	1.88	Spike	P	0 - 30
2132730	Oxadiazon	2.24	Spike	P	0 - 30
2132730	Parathion Ethyl	1.17	Spike	P	0 - 30
2132730	Parathion Methyl	0.468	Spike	P	0 - 30
2132730	Pendimethalin	2.51	Spike	P	0 - 30
2132730	Phorate	4.09	Spike	P	0 - 30
2132730	Prodiamine	6.77	Spike	P	0 - 30
2132730	Prometon	3.86	Spike	P	0 - 30
2132730	Prometryn	2.23	Spike	P	0 - 30
2132730	Simazine	0.705	Spike	P	0 - 30
2132730	Tebuconazole	1.30	Spike	P	0 - 30
2132730	Terbufos	1.19	Spike	P	0 - 30
2132730	Terbutylazine	4.07	Spike	P	0 - 30
LFB	Acetochlor	12.2	LCS	P	0 - 30
LFB	Alachlor	9.40	LCS	P	0 - 30
LFB	Ametryn	20.7	LCS	P	0 - 30
LFB	Atrazine	5.67	LCS	P	0 - 30
LFB	Atrazine Desethyl	14.8	LCS	P	0 - 30
LFB	Azinphos Methyl	0.925	LCS	P	0 - 30
LFB	Bromacil	7.79	LCS	P	0 - 30
LFB	Butylate	1.22	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	4.36	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	6.76	LCS	P	0 - 30
LFB	Cyanazine	14.1	LCS	P	0 - 30
LFB	Demeton	7.08	LCS	P	0 - 30
LFB	Diazinon	11.6	LCS	P	0 - 30
LFB	Dimethenamid	11.3	LCS	P	0 - 30
LFB	Disulfoton	11.7	LCS	P	0 - 30
LFB	Dithiopyr	9.10	LCS	P	0 - 30
LFB	EPTC	3.05	LCS	P	0 - 30
LFB	Ethion	2.11	LCS	P	0 - 30
LFB	Ethoprop	11.5	LCS	P	0 - 30
LFB	Fenamiphos	2.03	LCS	P	0 - 30
LFB	Fipronil	10.5	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	10.6	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P373575

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Fipronil Sulfide	6.77	LCS	P	0 - 30
LFB	Fipronil Sulfone	9.45	LCS	P	0 - 30
LFB	Fonofos	7.98	LCS	P	0 - 30
LFB	Hexazinone	11.5	LCS	P	0 - 30
LFB	Malathion	10.8	LCS	P	0 - 30
LFB	Metalaxyl	8.95	LCS	P	0 - 30
LFB	Metolachlor	7.04	LCS	P	0 - 30
LFB	Metribuzin	0.660	LCS	P	0 - 30
LFB	Mevinphos	8.60	LCS	P	0 - 30
LFB	Molinate	3.11	LCS	P	0 - 30
LFB	Norflurazon	6.90	LCS	P	0 - 30
LFB	Oxadiazon	7.34	LCS	P	0 - 30
LFB	Parathion Ethyl	6.92	LCS	P	0 - 30
LFB	Parathion Methyl	7.26	LCS	P	0 - 30
LFB	Pendimethalin	2.93	LCS	P	0 - 30
LFB	Phorate	8.30	LCS	P	0 - 30
LFB	Prodiamine	0.581	LCS	P	0 - 30
LFB	Prometon	5.75	LCS	P	0 - 30
LFB	Prometryn	6.09	LCS	P	0 - 30
LFB	Simazine	6.28	LCS	P	0 - 30
LFB	Tebuconazole	15.6	LCS	P	0 - 30
LFB	Terbufos	8.84	LCS	P	0 - 30
LFB	Terbuthylazine	7.18	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P373744

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2133112	Aldrin	1.90	Spike	P	0 - 30
2133112	Alpha-BHC	0.650	Spike	P	0 - 30
2133112	Alpha-Chlordane	2.99	Spike	P	0 - 30
2133112	Beta-BHC	4.07	Spike	P	0 - 30
2133112	Bifenthrin	1.79	Spike	P	0 - 30
2133112	Carbophenothion	7.51	Spike	P	0 - 30
2133112	Chlorothalonil	39.9	Spike	F	0 - 30
2133112	Cis-Nonachlor	3.52	Spike	P	0 - 30
2133112	Cypermethrin	5.30	Spike	P	0 - 30
2133112	DDD-p,p'	1.74	Spike	P	0 - 30
2133112	DDE-p,p'	2.29	Spike	P	0 - 30
2133112	DDT-p,p'	1.51	Spike	P	0 - 30
2133112	Delta-BHC	1.94	Spike	P	0 - 30
2133112	Dicofol	6.97	Spike	P	0 - 30
2133112	Dieldrin	3.68	Spike	P	0 - 30
2133112	Endosulfan I	4.93	Spike	P	0 - 30
2133112	Endosulfan II	4.19	Spike	P	0 - 30
2133112	Endosulfan Sulfate	1.27	Spike	P	0 - 30
2133112	Endrin	1.16	Spike	P	0 - 30
2133112	Endrin Aldehyde	1.61	Spike	P	0 - 30
2133112	Endrin Ketone	0.461	Spike	P	0 - 30
2133112	Ethalfuralin	1.68	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P373744

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2133112	Gamma-BHC	1.30	Spike	P	0 - 30
2133112	Gamma-Chlordane	2.81	Spike	P	0 - 30
2133112	Heptachlor	2.36	Spike	P	0 - 30
2133112	Heptachlor Epoxide	3.00	Spike	P	0 - 30
2133112	Hexachlorobenzene	4.66	Spike	P	0 - 30
2133112	Methoxychlor	1.82	Spike	P	0 - 30
2133112	Mirex	0.142	Spike	P	0 - 30
2133112	Permethrin	7.05	Spike	P	0 - 30
2133112	Trans-Nonachlor	3.45	Spike	P	0 - 30
2133112	Trifluralin	0.163	Spike	P	0 - 30
LFB	Aldrin	5.79	LCS	P	0 - 30
LFB	Alpha-BHC	1.94	LCS	P	0 - 30
LFB	Alpha-Chlordane	6.71	LCS	P	0 - 30
LFB	Beta-BHC	4.13	LCS	P	0 - 30
LFB	Bifenthrin	0.0409	LCS	P	0 - 30
LFB	Carbophenothion	1.68	LCS	P	0 - 30
LFB	Chlorothalonil	8.77	LCS	P	0 - 30
LFB	Cis-Nonachlor	7.17	LCS	P	0 - 30
LFB	Cypermethrin	2.69	LCS	P	0 - 30
LFB	DDD-p,p'	4.29	LCS	P	0 - 30
LFB	DDE-p,p'	9.90	LCS	P	0 - 30
LFB	DDT-p,p'	1.00	LCS	P	0 - 30
LFB	Delta-BHC	0.595	LCS	P	0 - 30
LFB	Dicofol	1.02	LCS	P	0 - 30
LFB	Dieldrin	7.24	LCS	P	0 - 30
LFB	Endosulfan I	7.26	LCS	P	0 - 30
LFB	Endosulfan II	16.5	LCS	P	0 - 30
LFB	Endosulfan Sulfate	3.61	LCS	P	0 - 30
LFB	Endrin	4.12	LCS	P	0 - 30
LFB	Endrin Aldehyde	6.94	LCS	P	0 - 30
LFB	Endrin Ketone	2.03	LCS	P	0 - 30
LFB	Ethalfuralin	0.0347	LCS	P	0 - 30
LFB	Gamma-BHC	1.71	LCS	P	0 - 30
LFB	Gamma-Chlordane	6.05	LCS	P	0 - 30
LFB	Heptachlor	6.61	LCS	P	0 - 30
LFB	Heptachlor Epoxide	7.19	LCS	P	0 - 30
LFB	Hexachlorobenzene	2.48	LCS	P	0 - 30
LFB	Methoxychlor	1.11	LCS	P	0 - 30
LFB	Mirex	0.0277	LCS	P	0 - 30
LFB	Permethrin	0.370	LCS	P	0 - 30
LFB	Trans-Nonachlor	7.41	LCS	P	0 - 30
LFB	Trifluralin	0.470	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P373744

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2133060	Chlordane	1.02	Spike	P	0 - 30
2133060	Toxaphene	10.8	Spike	P	0 - 30
LFB	Chlordane	0.701	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8276
Batch ID: P373744

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Toxaphene	2.52	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P373553

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132727	3-Hydroxycarbofuran	9.89	Spike	P	0 - 30
2132727	Aldicarb	16.2	Spike	P	0 - 30
2132727	Aldicarb Sulfone	14.9	Spike	P	0 - 30
2132727	Aldicarb Sulfoxide	14.0	Spike	P	0 - 30
2132727	Carbaryl	13.4	Spike	P	0 - 30
2132727	Carbofuran	0.996	Spike	P	0 - 30
2132727	Methiocarb	12.4	Spike	P	0 - 30
2132727	Methomyl	5.58	Spike	P	0 - 30
2132727	Oxamyl	10.8	Spike	P	0 - 30
2132727	Propoxur	1.54	Spike	P	0 - 30
2132728	2,4-D	2.60	Spike	P	0 - 30
2132728	Acetaminophen	0.200	Spike	P	0 - 30
2132728	Acetamiprid	3.31	Spike	P	0 - 30
2132728	Afidopyropen	3.22	Spike	P	0 - 30
2132728	Bentazon	2.08	Spike	P	0 - 30
2132728	Benzovindiflupyr	3.56	Spike	P	0 - 30
2132728	Carbamazepine	1.08	Spike	P	0 - 30
2132728	Clothianidin	7.10	Spike	P	0 - 30
2132728	Dinotefuran	0.679	Spike	P	0 - 30
2132728	Diuron	1.39	Spike	P	0 - 30
2132728	Fenuron	0.564	Spike	P	0 - 30
2132728	Fluridone	4.57	Spike	P	0 - 30
2132728	Hydrocodone	3.01	Spike	P	0 - 30
2132728	Ibuprofen	6.06	Spike	P	0 - 30
2132728	Imazapyr	4.31	Spike	P	0 - 30
2132728	Imidacloprid	1.18	Spike	P	0 - 30
2132728	Linuron	9.63	Spike	P	0 - 30
2132728	Mandestrobin	2.60	Spike	P	0 - 30
2132728	MCPP	2.31	Spike	P	0 - 30
2132728	Naproxen	1.36	Spike	P	0 - 30
2132728	Primidone	4.71	Spike	P	0 - 30
2132728	Pyraclostrobin	1.31	Spike	P	0 - 30
2132728	Thiamethoxam	0.0825	Spike	P	0 - 30
2132728	Tolfenpyrad	0.963	Spike	P	0 - 30
2132728	Triclopyr	4.56	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P373607

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132580	Acesulfame K	2.30	Spike	P	0 - 30
2132580	AMPA	2.41	Spike	P	0 - 30
2132580	Endothall	4.67	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P373607

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132580	Glufosinate	2.47	Spike	P	0 - 30
2132580	Glyphosate	9.89	Spike	P	0 - 30
2132580	Sucralose	25.5	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P373534

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132618	Color (true)	0.665	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P373535

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132710	Color (true)	0.586	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P373971

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132775	Total Alkalinity	0.249	Sample	P	0 - 2.8

Reference Method: SM 2540 C-97
Batch ID: P373882

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132662	TDS	5.77	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P373975

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132775	Fluoride	1.99	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
Batch ID: P373609

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132647	Organic Carbon	0.291	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2132727
Field Sample ID: G4NW0009

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	99.2	P	30 - 160

Lab Sample ID: 2132728
Field Sample ID: G4NW0009

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	153	P	30 - 160
EPA 8321B	Acetaminophen-d4	84.9	P	30 - 160
EPA 8321B	Carbamazepine-d10	91.9	P	30 - 160
EPA 8321B	Diuron-d6	85.6	P	30 - 160
EPA 8321B	Endothall-d6	97.1	P	30 - 160
EPA 8321B	Endothall-d6	97.1	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	35.1	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	35.1	P	30 - 160
EPA 8321B	Ibuprofen-d3	110	P	30 - 160
EPA 8321B	Primidone-d5	96.3	P	30 - 160
EPA 8321B	Sucralose-d6	18.6	F	30 - 160
EPA 8321B	Sucralose-d6	18.6	F	30 - 160

Lab Sample ID: 2132729
Field Sample ID: G4NW0009

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	89.2	P	39 - 109
EPA 8270E	Tetrachloro-m-xylene	83.1	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	61.8	P	30 - 103
EPA 8276	PCNB	87.8	P	37 - 143

Lab Sample ID: 2132730
Field Sample ID: G4NW0009

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	118	P	68 - 130
EPA 8270E	Terbufos-d10	114	P	61 - 136

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A95384

Included Lab Sample IDs: 2132707, 2132710, 2132713

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	100	P/P	95 - 105

Reference Method: SM 2120 B

Run ID: A95385

Included Lab Sample IDs: 2132707, 2132710

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.2	99.3	P/P	90 - 115
Color (true)	99.4	99.2	P/P	90 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A95389

Included Lab Sample IDs: 2132709, 2132712, 2132715

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.7	99.0	P/P	90 - 110
O-Phosphate-P	99.0	99.1	P/P	90 - 110
O-Phosphate-P	99.1	99.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A95392

Included Lab Sample IDs: 2132708, 2132711

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

Reference Method: SM 5310 B-00

Run ID: A95422

Included Lab Sample IDs: 2132708, 2132711, 2132714

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	107	102	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A95438

Included Lab Sample IDs: 2132708, 2132714

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A95468

Included Lab Sample IDs: 2132714

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A95493

Included Lab Sample IDs: 2132731, 2132732, 2132733, 2132734

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	100	104	P/P	90 - 110
Antimony	102	103	P/P	90 - 110
Arsenic	103	104	P/P	90 - 110
Boron	97.4	101	P/P	90 - 110
Cadmium	102	103	P/P	90 - 110
Chromium	105	102	P/P	90 - 110
Copper	104	103	P/P	90 - 110
Lead	100	101	P/P	90 - 110
Nickel	105	104	P/P	90 - 110
Selenium	102	103	P/P	90 - 110
Silver	104	105	P/P	90 - 110
Thallium	99.2	98.8	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A95495

Included Lab Sample IDs: 2132731, 2132732, 2132733, 2132734

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	102	102	P/P	90 - 110
Calcium	101	99.8	P/P	90 - 110
Calcium	99.8	101	P/P	90 - 110
Iron	101	101	P/P	90 - 110
Iron	102	101	P/P	90 - 110
Magnesium	100	101	P/P	90 - 110
Magnesium	102	100	P/P	90 - 110
Manganese	101	103	P/P	90 - 110
Potassium	101	98.7	P/P	90 - 110
Potassium	98.7	99.7	P/P	90 - 110
Sodium	101	98.4	P/P	90 - 110
Sodium	98.4	99.7	P/P	90 - 110
Zinc	102	102	P/P	90 - 110
Zinc	102	103	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A95511

Included Lab Sample IDs: 2132707, 2132710, 2132713

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

Reference Method: EPA 300.0

Run ID: A95513

Included Lab Sample IDs: 2132713

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bromide	102	99.6	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A95516

Included Lab Sample IDs: 2132711

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

Reference Method: EPA 8321B

Run ID: A95522

Included Lab Sample IDs: 2132728

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	80.4	62.3	P/P	60 - 160
Endothall	90.2	94.9	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A95523

Included Lab Sample IDs: 2132728

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	87.5	81.7	P/P	60 - 160
Glufosinate	107	102	P/P	60 - 160
Glyphosate	98.2	92.5	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A95575

Included Lab Sample IDs: 2132728

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	120	111	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A95588

Included Lab Sample IDs: 2132728

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	96.9	93.5	P/P	50 - 150
3-Hydroxycarbofuran	102	101	P/P	60 - 150
Acetaminophen	105	106	P/P	60 - 160
Acetamiprid	110	109	P/P	50 - 150
Afidopyropen	105	107	P/P	50 - 150
Aldicarb	127	107	P/P	60 - 150
Aldicarb Sulfone	97.4	102	P/P	50 - 150
Aldicarb Sulfoxide	107	104	P/P	50 - 150
Bentazon	103	98.8	P/P	50 - 160
Benzovindiflupyr	114	115	P/P	50 - 150
Carbamazepine	110	112	P/P	60 - 150
Carbaryl	104	101	P/P	60 - 150
Carbofuran	95.7	114	P/P	50 - 150
Clothianidin	104	93.7	P/P	60 - 150
Dinotefuran	104	105	P/P	50 - 150
Diuron	113	111	P/P	60 - 150
Fenuron	108	110	P/P	60 - 150
Fluridone	115	118	P/P	60 - 160
Hydrocodone	108	110	P/P	60 - 150
Ibuprofen	95.7	79.8	P/P	50 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A95588

Included Lab Sample IDs: 2132728

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Imazapyr	105	93.0	P/P	50 - 150
Imidacloprid	103	110	P/P	60 - 150
Linuron	105	104	P/P	60 - 150
Mandestrobin	107	107	P/P	50 - 150
MCPP	111	97.7	P/P	50 - 150
Methiocarb	94.5	101	P/P	50 - 150
Methomyl	112	97.7	P/P	50 - 150
Naproxen	90.6	86.0	P/P	50 - 160
Oxamyl	102	104	P/P	50 - 150
Primidone	97.3	100	P/P	60 - 150
Propoxur	106	109	P/P	50 - 150
Pyraclostrobin	104	99.0	P/P	60 - 150
Thiamethoxam	102	105	P/P	50 - 150
Tolfenpyrad	104	105	P/P	60 - 150
Triclopyr	90.2	86.4	P/P	50 - 150

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A95591

Included Lab Sample IDs: 2132708, 2132711, 2132714

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.9	99.1	P/P	90 - 110
Kjeldahl Nitrogen	99.1	99.4	P/P	90 - 110
Kjeldahl Nitrogen	99.4	92.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A95597

Included Lab Sample IDs: 2132714

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

Reference Method: SM 2320 B-97

Run ID: A95613

Included Lab Sample IDs: 2132707, 2132710, 2132713

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	98.5	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A95613

Included Lab Sample IDs: 2132707, 2132710, 2132713

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

Reference Method: EPA 8276

Run ID: A95614

Included Lab Sample IDs: 2132729

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

Reference Method: EPA 8276

Run ID: A95614

Included Lab Sample IDs: 2132729

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	94.6		P	80 - 120
Toxaphene	66.5*		F	80 - 120

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A95657

Included Lab Sample IDs: 2132708

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.4	98.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A95662

Included Lab Sample IDs: 2132711

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.8	100	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A95674

Included Lab Sample IDs: 2132729

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	107		P	80 - 120
Alpha-BHC	109		P	80 - 120
Alpha-Chlordane	105		P	80 - 120
Beta-BHC	105		P	80 - 120
Bifenthrin	115		P	80 - 120
Carbophenothion	113		P	80 - 120
Chlorothalonil	96.1		P	80 - 120
Cis-Nonachlor	105		P	80 - 120
Cypermethrin	111		P	80 - 120
DDD-p,p'	105		P	80 - 120
DDE-p,p'	108		P	80 - 120
DDT-p,p'	108		P	80 - 120
Delta-BHC	111		P	80 - 120
Dicofol	106		P	80 - 120
Dieldrin	105		P	80 - 120
Endosulfan I	104		P	80 - 120
Endosulfan II	110		P	80 - 120
Endosulfan Sulfate	115		P	80 - 120
Endrin	108		P	80 - 120
Endrin Aldehyde	105		P	80 - 120
Endrin Ketone	113		P	80 - 120
Ethalfuralin	112		P	80 - 120
Gamma-BHC	107		P	80 - 120
Gamma-Chlordane	105		P	80 - 120
Heptachlor	111		P	80 - 120
Heptachlor Epoxide	105		P	80 - 120
Hexachlorobenzene	112		P	80 - 120
Methoxychlor	105		P	80 - 120
Mirex	112		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A95674

Included Lab Sample IDs: 2132729

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Permethrin	109		P	80 - 120
Trans-Nonachlor	104		P	80 - 120
Trifluralin	113		P	80 - 120

Reference Method: EPA 8270E

Run ID: A95775

Included Lab Sample IDs: 2132730

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	106		P	80 - 120
Alachlor	108		P	80 - 120
Ametryn	105		P	80 - 120
Atrazine	104		P	80 - 120
Atrazine Desethyl	96.0		P	80 - 120
Azinphos Methyl	95.4		P	80 - 120
Bromacil	94.3		P	80 - 120
Butylate	98.9		P	80 - 120
Chlorpyrifos Ethyl	106		P	80 - 120
Chlorpyrifos Methyl	102		P	80 - 120
Cyanazine	89.7		P	80 - 120
Demeton	96.7		P	80 - 120
Diazinon	109		P	80 - 120
Dimethenamid	106		P	80 - 120
Disulfoton	105		P	80 - 120
Dithiopyr	108		P	80 - 120
EPTC	101		P	80 - 120
Ethion	84.6		P	80 - 120
Ethoprop	101		P	80 - 120
Fenamiphos	91.4		P	80 - 120
Fipronil	96.2		P	80 - 120
Fipronil Desulfinyl	99.7		P	80 - 120
Fipronil Sulfide	93.9		P	80 - 120
Fipronil Sulfone	92.3		P	80 - 120
Fonofos	103		P	80 - 120
Hexazinone	104		P	80 - 120
Malathion	91.1		P	80 - 120
Metalaxyl	103		P	80 - 120
Metolachlor	97.0		P	80 - 120
Metribuzin	104		P	80 - 120
Mevinphos	97.1		P	80 - 120
Molinate	98.1		P	80 - 120
Norflurazon	91.6		P	80 - 120
Oxadiazon	110		P	80 - 120
Parathion Ethyl	98.1		P	80 - 120
Parathion Methyl	98.3		P	80 - 120
Pendimethalin	98.9		P	80 - 120
Phorate	104		P	80 - 120
Prodiamine	95.3		P	80 - 120
Prometon	103		P	80 - 120
Prometryn	103		P	80 - 120
Simazine	102		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A95775

Included Lab Sample IDs: 2132730

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Tebuconazole	102		P	80 - 120
Terbufos	106		P	80 - 120
Terbuthylazine	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 180.1 Rev. 2.0	Turbidity							2.96	
	Turbidity							2.29	
EPA 200.7 Rev. 4.4	Barium	102		104	104	105			0.0785
	Calcium	102		103	101				0.207
	Iron	105		105	106	107			0.659
	Magnesium	109		108	110	103			0.961
	Manganese	100		101	101	103			0.0132
	Potassium	106		104	105	104			0.317
	Sodium	99.9		101	104	98.7			1.58
	Zinc	100		104	104	106			0.289
EPA 200.8 Rev. 5.4	Aluminum	98.1		99.0	97.7	96.9			1.01
	Antimony	103		104	104	105			0.179
	Arsenic	98.7		101	101	103			0.0211
	Boron	97.7		98.2	99.0	97.1			0.697
	Cadmium	97.4		100	97.7	101			2.56
	Chromium	98.0		101	101	100			0.638
	Copper	94.7		94.3	91.9	99.7			2.47
	Lead	98.5		102	102	102			0.534
	Nickel	97.6		100	100	97.2			0.237
	Selenium	93.5		87.0	85.9	94.9			1.23
	Silver	103		104	103	103			1.05
	Thallium	103		108	108	108			0.615
EPA 300.0	Bromide	100		96.8	98.4				0.815
EPA 300.0 Rev. 2.1	Chloride	98.6		99.4	99.3	98.9			0.0781
	Sulfate	98.4		99.5	99.0	99.3			0.518
EPA 350.1 Rev. 2.0	Ammonia-N	100		97.7	99.6				1.82
	Ammonia-N	99.8		102	103				0.806
	Ammonia-N	102		100	101				0.577
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	96.6		103	98.8				3.85
	Kjeldahl Nitrogen	101		97.7	95.0				2.14
EPA 353.2 Rev. 2.0	NO2NO3-N	99.0		100	100				0.0
	NO2NO3-N	100		97.8					0.0
EPA 365.1 Rev. 2.0	Total-P	104		105	106				0.758
	Total-P	101							1.80
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101		96.6	97.2				0.494
	O-Phosphate-P	99.1		94.0	93.1				0.867
EPA 8270E	Acetochlor	115	102	102	101		12.2		1.05
	Alachlor	109	99.6	113	100		9.40		12.1
	Aldrin	54.0	51.0	67.0	65.7		5.79		1.90
	Alpha-BHC	101	99.3	103	102		1.94		0.650
	Alpha-Chlordane	94.7	88.5	88.2	85.6		6.71		2.99
	Ametryn	101	125	115	114		20.7		0.821
	Atrazine	101	107				5.67		2.52
	Atrazine Desethyl	99.2	115	120	122		14.8		1.19
	Azinphos Methyl	122	123	109	106		0.925		2.28
	Beta-BHC	111	116	107	111		4.13		4.07
	Bifenthrin	108	108	104	106		0.0409		1.79
	Bromacil	110	119	115	144		7.79		22.1
	Butylate	66.3	65.5	58.2	58.7		1.22		0.811
	Carbophenothion	79.7	78.4	114	105		1.68		7.51
	Chlorothalonil	139	127	14.0	21.0		8.77		39.9
	Chlorpyrifos Ethyl	98.0	102	86.1	91.8		4.36		6.34
	Chlorpyrifos Methyl	101	94.6	98.0	95.2		6.76		2.92
	Cis-Nonachlor	100	93.4	90.4	87.3		7.17		3.52

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270E	Cyanazine	180	156	198	193	14.1		2.91
	Cypermethrin	113	116	116	110	2.69		5.30
	DDD-p,p'	102	98.2	92.3	90.7	4.29		1.74
	DDE-p,p'	95.3	86.3	89.5	87.5	9.90		2.29
	DDT-p,p'	87.3	86.5	87.8	86.5	1.00		1.51
	Delta-BHC	122	123	134	131	0.595		1.94
	Demeton	89.3	83.2	90.5	90.8	7.08		0.300
	Diazinon	114	101	119	116	11.6		2.93
	Dicofol	101	102	95.1	102	1.02		6.97
	Dieldrin	100	93.3	90.7	87.4	7.24		3.68
	Dimethenamid	113	101	90.5	87.1	11.3		3.74
	Disulfoton	104	92.9	110	109	11.7		0.170
	Dithiopyr	109	99.2	103	97.7	9.10		5.48
	Endosulfan I	106	98.8	100	95.4	7.26		4.93
	Endosulfan II	118	100	107	102	16.5		4.19
	Endosulfan Sulfate	109	113	92.2	93.4	3.61		1.27
	Endrin	103	98.4	90.9	89.8	4.12		1.16
	Endrin Aldehyde	114	106	84.8	86.2	6.94		1.61
	Endrin Ketone	108	110	95.8	95.4	2.03		0.461
	EPTC	70.2	68.1	65.5	63.8	3.05		2.55
	Ethalfuralin	98.5	98.5	98.2	96.6	0.0347		1.68
	Ethion	99.9	97.8	24.5	26.9	2.11		9.56
	Ethoprop	105	93.4	105	105	11.5		0.0550
	Fenamiphos	106	104	62.6	61.8	2.03		1.36
	Fipronil	110	123	109	109	10.5		0.125
	Fipronil Desulfinyl	110	122	110	105	10.6		4.14
	Fipronil Sulfide	97.6	104	106	95.1	6.77		10.5
	Fipronil Sulfone	103	113	90.6	92.1	9.45		1.66
	Fonofos	90.8	98.4	108	110	7.98		2.44
	Gamma-BHC	103	101	111	110	1.71		1.30
	Gamma-Chlordane	93.0	87.6	85.8	83.4	6.05		2.81
	Heptachlor	92.5	86.5	83.8	81.9	6.61		2.36
	Heptachlor Epoxide	98.5	91.7	91.1	88.4	7.19		3.00
	Hexachlorobenzene	86.7	88.8	84.9	89.0	2.48		4.66
	Hexazinone	106	119	116	110	11.5		5.19
	Malathion	94.8	106	102	86.3	10.8		16.3
	Metalaxyl	103	113	99.8	93.8	8.95		6.21
	Methoxychlor	97.1	96.0	95.7	93.9	1.11		1.82
	Metolachlor	99.5	107	98.8	94.7	7.04		3.70
	Metribuzin	185	186	247	237	0.660		4.00
	Mevinphos	92.7	101	99.9	102	8.60		2.38
	Mirex	83.1	83.1	86.6	86.7	0.0277		0.142
	Molinate	76.1	78.5	77.7	77.9	3.11		0.143
	Norflurazon	111	119	100	98.6	6.90		1.88
	Oxadiazon	96.0	103	88.9	86.9	7.34		2.24
	Parathion Ethyl	91.6	98.2	93.2	92.1	6.92		1.17
	Parathion Methyl	99.9	107	104	105	7.26		0.468
	Pendimethalin	82.6	85.1	85.9	83.8	2.93		2.51
	Permethrin	102	103	108	101	0.370		7.05
	Phorate	90.6	98.5	111	107	8.30		4.09
	Prodiamine	43.8	44.0	44.5	41.6	0.581		6.77
	Prometon	91.3	96.7	89.3	85.9	5.75		3.86
	Prometryn	97.1	103	101	99.2	6.09		2.23
	Simazine	103	110	112	113	6.28		0.705

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270E	Tebuconazole	84.5	98.8	26.2	26.6	15.6		1.30
	Terbufos	91.3	99.7	117	116	8.84		1.19
	Terbuthylazine	94.7	102	99.0	95.1	7.18		4.07
	Trans-Nonachlor	94.7	87.9	86.5	83.6	7.41		3.45
	Trifluralin	96.4	96.0	96.6	96.5	0.470		0.163
EPA 8276	Chlordane	92.6	93.3	69.7	70.4	0.701		1.02
	Toxaphene	80.4	78.4	71.4	64.0	2.52		10.8
EPA 8321B	2,4-D	136		157	162			2.60
	3-Hydroxycarbofuran	91.8		101	91.8			9.89
	Acesulfame K	51.3		79.0	80.8			2.30
	Acetaminophen	83.8		92.6	92.4			0.200
	Acetamiprid	92.7		123	119			3.31
	Afidopyropen	97.4		118	114			3.22
	Aldicarb	90.3		80.5	94.6			16.2
	Aldicarb Sulfone	89.8		111	95.8			14.9
	Aldicarb Sulfoxide	95.8		48.7	42.4			14.0
	AMPA	85.5		94.5	91.7			2.41
	Bentazon	105		83.7	85.5			2.08
	Benzovindiflupyr	94.2		101	105			3.56
	Carbamazepine	103		117	116			1.08
	Carbaryl	85.9		89.3	102			13.4
	Carbofuran	92.7		81.8	80.9			0.996
	Clothianidin	92.3		113	105			7.10
	Dinotefuran	93.2		124	123			0.679
	Diuron	100		103	105			1.39
	Endothall	97.1		83.3	87.3			4.67
	Fenuron	99.4		104	103			0.564
	Fluridone	96.4		106	111			4.57
	Glufosinate	103		100	98.0			2.47
	Glyphosate	89.7		80.5	88.8			9.89
	Hydrocodone	89.0		108	111			3.01
	Ibuprofen	93.5		106	112			6.06
	Imazapyr	92.6		130	121			4.31
	Imidacloprid	111		188	186			1.18
	Linuron	82.0		85.2	93.8			9.63
	Mandestrobin	93.1		102	104			2.60
	MCPP	149		169	165			2.31
	Methiocarb	70.8		66.5	75.3			12.4
	Methomyl	91.9		90.4	85.5			5.58
	Naproxen	73.0		106	105			1.36
	Oxamyl	100		106	95.1			10.8
	Primidone	92.3		112	117			4.71
	Propoxur	89.8		82.0	80.7			1.54
	Pyraclostrobin	83.8		99.9	98.6			1.31
	Sucralose	86.2		73.8	96.2			25.5
	Thiamethoxam	98.8		153	153			0.0825
	Tolfenpyrad	52.0		65.6	64.9			0.963
	Triclopyr	117		136	130			4.56
SM 2120 B	Color (true)	98.3					0.665	
	Color (true)	99.2					0.586	
SM 2320 B-97	Total Alkalinity	100					0.249	
SM 2540 C-97	TDS						5.77	
SM 4500 F-C-97	Fluoride	97.8		100	97.6			1.99
SM 5310 B-00	Organic Carbon	103		105	105			0.291

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2132707, 2132710, 2132713
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2132731, 2132732, 2132733, 2132734
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2132731, 2132732, 2132733, 2132734
EPA 300.0 / E31780	Bromide in aqueous matrices	2132713
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2132707, 2132710, 2132713
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2132707, 2132710
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2132708, 2132711, 2132714
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2132708, 2132711, 2132714
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2132708, 2132711, 2132714
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2132708, 2132711, 2132714
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2132709, 2132712, 2132715
EPA 8270E / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	2132729
EPA 8270E / E31780	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2132730
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2132729
EPA 8321B / E31780	Carbamates in water matrices by HPLC/MS/MS	2132727
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2132728
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2132728
SM 2120 B / E31780	True Color measured at 450 nm	2132707, 2132710
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2132707, 2132710, 2132713
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2132707, 2132710
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2132707, 2132710, 2132713
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2132707, 2132710, 2132713
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2132708, 2132711, 2132714

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	10/31/2019			10/31/2019 16:52	Rosalyn Ballman	2132707, 2132710, 2132713
EPA 200.7 Rev. 4.4	10/31/2019	11/04/2019 12:55	Elliott D. Healy	11/05/2019 15:28	Betina Topolski	2132731
	10/31/2019	11/04/2019 12:55	Elliott D. Healy	11/05/2019 15:59	Betina Topolski	2132732
	10/31/2019	11/04/2019 12:55	Elliott D. Healy	11/05/2019 16:06	Betina Topolski	2132733
	10/31/2019	11/04/2019 12:55	Elliott D. Healy	11/05/2019 16:14	Betina Topolski	2132734
EPA 200.8 Rev. 5.4	10/31/2019	11/04/2019 12:55	Elliott D. Healy	11/05/2019 20:53	Robert K Palmer	2132731
	10/31/2019	11/04/2019 12:55	Elliott D. Healy	11/05/2019 21:03	Robert K Palmer	2132732
	10/31/2019	11/04/2019 12:55	Elliott D. Healy	11/05/2019 21:13	Robert K Palmer	2132733
	10/31/2019	11/04/2019 12:55	Elliott D. Healy	11/05/2019 21:22	Robert K Palmer	2132734
EPA 300.0	10/31/2019			11/05/2019 11:00	Jhamieka S. Greenwood	2132713
EPA 300.0 Rev. 2.1	10/31/2019			11/07/2019 01:20	Jhamieka S. Greenwood	2132707
	10/31/2019			11/07/2019 01:32	Jhamieka S. Greenwood	2132710
	10/31/2019			11/07/2019 01:44	Jhamieka S. Greenwood	2132713
EPA 350.1 Rev. 2.0	10/31/2019			11/01/2019 13:23	Ping Hua	2132708
	10/31/2019			11/01/2019 14:10	Ping Hua	2132714
	10/31/2019			11/04/2019 11:53	Ping Hua	2132711
EPA 351.2 Rev. 2.0	10/31/2019	11/07/2019 11:50	Sima Feizi	11/08/2019 11:19	Virginia P. Brown	2132714
	10/31/2019	11/07/2019 11:50	Sima Feizi	11/08/2019 11:39	Virginia P. Brown	2132708
	10/31/2019	11/07/2019 11:50	Sima Feizi	11/08/2019 11:47	Virginia P. Brown	2132711
EPA 353.2 Rev. 2.0	10/31/2019			11/01/2019 10:35	Beverly Y. Sanders	2132708
	10/31/2019			11/01/2019 10:36	Beverly Y. Sanders	2132711
	10/31/2019			11/05/2019 08:44	Beverly Y. Sanders	2132714
EPA 365.1 Rev. 2.0	10/31/2019	11/07/2019 14:35	Yen Ta	11/08/2019 13:39	Benjamin T. Nordmann	2132714
	10/31/2019	11/08/2019 13:00	Lipi Saha	11/12/2019 12:49	Benjamin T. Nordmann	2132708
	10/31/2019	11/08/2019 13:00	Lipi Saha	11/12/2019 15:41	Benjamin T. Nordmann	2132711
EPA 365.1 Rev. 2.0 dissolved	10/31/2019			10/31/2019 15:45	Samantha Davila	2132712
	10/31/2019			10/31/2019 15:53	Samantha Davila	2132715
	10/31/2019			10/31/2019 16:21	Samantha Davila	2132709
EPA 8270E	10/31/2019	11/04/2019 09:00	Rasheda Ghaffari	11/07/2019 14:58	Vandana T. Nagar	2132730
	10/31/2019	11/05/2019 13:00	Rasheda Ghaffari	11/09/2019 02:45	Arthur Maknenko	2132729
EPA 8276	10/31/2019	11/05/2019 13:00	Rasheda Ghaffari	11/09/2019 06:44	Michael Poppell	2132729
EPA 8321B	10/31/2019	11/04/2019 10:30	Rebecca Ware	11/04/2019 15:08	Rebecca Ware	2132728
	10/31/2019	11/04/2019 10:30	Rebecca Ware	11/05/2019 14:17	Rebecca Ware	2132728
	10/31/2019	11/04/2019 10:30	Rebecca Ware	11/06/2019 15:27	Rebecca Ware	2132728
	10/31/2019	11/06/2019 08:00	Hoor Shaik	11/08/2019 02:12	Juyoung Kim	2132727
	10/31/2019	11/06/2019 08:00	Hoor Shaik	11/09/2019 13:15	Juyoung Kim	2132728
SM 2120 B	10/31/2019			10/31/2019 17:05	Madeline Funaro	2132707
	10/31/2019			10/31/2019 17:09	Madeline Funaro	2132710
SM 2320 B-97	10/31/2019			11/08/2019 06:16	Dale L. Simmons	2132707
	10/31/2019			11/08/2019 06:28	Dale L. Simmons	2132710

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2320 B-97	10/31/2019			11/08/2019 06:40	Dale L. Simmons	2132713
SM 2540 C-97	10/31/2019			11/01/2019 14:20	Rosalyn Ballman	2132707, 2132710
SM 2540 D-97	10/31/2019			11/01/2019 14:20	Rosalyn Ballman	2132707, 2132710, 2132713
SM 4500 F-C-97	10/31/2019			11/08/2019 06:16	Dale L. Simmons	2132707
	10/31/2019			11/08/2019 06:28	Dale L. Simmons	2132710
	10/31/2019			11/08/2019 06:40	Dale L. Simmons	2132713
	10/31/2019			11/01/2019 19:28	Madeline Funaro	2132708
SM 5310 B-00	10/31/2019			11/01/2019 19:49	Madeline Funaro	2132711
	10/31/2019			11/01/2019 20:13	Madeline Funaro	2132714