

Chemical Analysis Report

SW-DIST-2022-07-06-01

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

Event Description: **SMP Run 20**
Request ID: **RQ-2022-07-04-08**
Customer: **SW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
13051 N. Telecom Parkway
Temple Terrace, FL 33637-0926
Attn: Ben Paswater

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: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 21-JUL-2022 11:13

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line above the first few letters of the last name.

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: 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: Bellows Lake Outlet @ Danny Bryan Rd

Collection Date/Time: 07/05/2022 10:15

Field ID: G1SW0111

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2339052	EPA 8270E	Aldrin	0.68	U	ng/L	P416118	
		Alpha-BHC	0.10	U	ng/L	P416118	
		Alpha-Chlordane	0.21	U	ng/L	P416118	
		PCB-1016	2.1	U	ng/L	P416118	
		Beta-BHC	0.10	U	ng/L	P416118	
		PCB-1221	2.1	U	ng/L	P416118	
		Beta-Cyfluthrin	1.3	U	ng/L	P416118	
		PCB-1232	2.1	U	ng/L	P416118	
		Bifenthrin	0.52	U	ng/L	P416118	
		PCB-1242	2.1	U	ng/L	P416118	
		Carbophenothion	0.94	U	ng/L	P416118	
		PCB-1248	2.1	U	ng/L	P416118	
		Chlorothalonil	1.3	U	ng/L	P416118	
		PCB-1254	2.1	U	ng/L	P416118	
		Cis-Nonachlor	0.21	U	ng/L	P416118	
		PCB-1260	2.1	U	ng/L	P416118	
		Cypermethrin	1.6	U	ng/L	P416118	
		Dacthal	0.16	U	ng/L	P416118	
		DDD-p,p'	0.26	U	ng/L	P416118	
		DDE-p,p'	0.21	U	ng/L	P416118	
		DDT-p,p'	0.26	U	ng/L	P416118	
		Delta-BHC	0.42	U	ng/L	P416118	
		Deltamethrin	1.3	U	ng/L	P416118	
		Dichlobenil	0.26	U	ng/L	P416118	
		Dicofol	1.3	U	ng/L	P416118	
		Dieldrin	0.42	U	ng/L	P416118	
		Endosulfan I	0.42	U	ng/L	P416118	
		Endosulfan II	0.42	U	ng/L	P416118	
		Endosulfan Sulfate	0.31	U	ng/L	P416118	
		Endrin	0.42	U	ng/L	P416118	
		Endrin Aldehyde	0.78	U	ng/L	P416118	
		Endrin Ketone	0.42	U	ng/L	P416118	
		Esfenvalerate	0.78	U	ng/L	P416118	
		Ethalfuralin	0.16	U	ng/L	P416118	
		Fenpropathrin	0.26	U	ng/L	P416118	
		Gamma-BHC	0.13	U	ng/L	P416118	
		Gamma-Chlordane	0.22	I	ng/L	P416118	
		Heptachlor	0.21	U	ng/L	P416118	
		Heptachlor Epoxide	0.26	U	ng/L	P416118	
		Hexachlorobenzene**	1.0	U	ng/L	P416118	
		Kepone	5.2	U	ng/L	P416118	
		Lambda-Cyhalothrin	0.78	U	ng/L	P416118	
		Methoprene	0.78	U	ng/L	P416118	
		Methoxychlor	0.31	U	ng/L	P416118	

Field ID: G1SW0111

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2339052	EPA 8270E	MGK-264	0.21	U	ng/L	P416118	
		Mirex	0.73	U	ng/L	P416118	
		Oxychlordane	0.31	U	ng/L	P416118	
		Permethrin	1.7	U	ng/L	P416118	
		Phenothrin	0.94	U	ng/L	P416118	
		Piperonyl Butoxide	0.49	I	ng/L	P416118	
		Prallethrin	2.1	U	ng/L	P416118	
		Tau-Fluvalinate	0.26	U	ng/L	P416118	
		Tetramethrin	0.78	U	ng/L	P416118	
		Trans-Nonachlor	0.21	U	ng/L	P416118	
		Triclosan Methyl	0.16	U	ng/L	P416118	
		Trifluralin	0.21	U	ng/L	P416118	
		Chlordane	2.6	U	ng/L	P416118	
		Toxaphene	16	U	ng/L	P416118	
2339054	EPA 8321B	2,4-D	0.0027	I	ug/L	P416352	
		Acesulfame K	0.10	I	ug/L	P416535	
		2,4,5-T	0.0040	U	ug/L	P416352	
		AMPA	0.99		ug/L	P416535	
		Acetaminophen	0.0080	U	ug/L	P416352	
		Acetamiprid	0.0020	U	ug/L	P416352	
		Endothall	0.25	U	ug/L	P416535	
		Glufosinate	0.10	U	ug/L	P416535	
		Glyphosate	3.1		ug/L	P416535	
		Afidopyropen	0.0020	U	ug/L	P416352	
		Bentazon	0.0031	I	ug/L	P416352	
		Sucralose	0.33		ug/L	P416535	
		Benzovindiflupyr	0.0020	U	ug/L	P416352	
		Carbamazepine	8.0E-04	U	ug/L	P416352	
		Clothianidin	0.0020	U	ug/L	P416352	
		Dinotefuran	0.0020	U	ug/L	P416352	
		Diuron	0.023		ug/L	P416352	
		Fenuron	0.032	U	ug/L	P416352	
		Fluridone	0.017		ug/L	P416352	
		Imazapyr	0.094		ug/L	P416352	
		Hydrocodone	0.0020	U	ug/L	P416352	
		Ibuprofen	0.080	U	ug/L	P416352	
		Imidacloprid	0.0020	U	ug/L	P416352	MS
		Linuron	0.0040	U	ug/L	P416352	
		Mandestrobin	0.0020	U	ug/L	P416352	
		MCPP	0.0040	U	ug/L	P416352	
		Naproxen	0.0080	U	ug/L	P416352	
		Primidone	0.010	I	ug/L	P416352	
		Pyraclostrobin	0.0020	U	ug/L	P416352	
		Silvex	0.0040	U	ug/L	P416352	
		Thiamethoxam	0.0020	U	ug/L	P416352	

Field ID: G1SW0111

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2339054	EPA 8321B	Tolfenpyrad	0.0020	U	ug/L	P416352	
		Triclopyr	0.0040	U	ug/L	P416352	

Ref. Method and Comment:
EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: Bellows Outlet

Collection Date/Time: 07/05/2022 10:50

Field ID: G1SW0060

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2339053	EPA 8270E	Aldrin	0.68	U	ng/L	P416118	
		Alpha-BHC	0.10	U	ng/L	P416118	
		Alpha-Chlordane	0.21	U	ng/L	P416118	
		PCB-1016	2.1	U	ng/L	P416118	
		Beta-BHC	0.10	U	ng/L	P416118	
		PCB-1221	2.1	U	ng/L	P416118	
		Beta-Cyfluthrin	1.3	U	ng/L	P416118	
		PCB-1232	2.1	U	ng/L	P416118	
		Bifenthrin	0.52	U	ng/L	P416118	
		PCB-1242	2.1	U	ng/L	P416118	
		Carbophenothion	0.94	U	ng/L	P416118	
		PCB-1248	2.1	U	ng/L	P416118	
		Chlorothalonil	1.3	U	ng/L	P416118	
		PCB-1254	2.1	U	ng/L	P416118	
		Cis-Nonachlor	0.21	U	ng/L	P416118	
		PCB-1260	2.1	U	ng/L	P416118	
		Cypermethrin	1.6	U	ng/L	P416118	
		Dacthal	0.16	U	ng/L	P416118	
		DDD-p,p'	0.26	U	ng/L	P416118	
		DDE-p,p'	0.21	U	ng/L	P416118	
		DDT-p,p'	0.26	U	ng/L	P416118	
		Delta-BHC	0.42	U	ng/L	P416118	
		Deltamethrin	1.3	U	ng/L	P416118	
		Dichlobenil	0.26	U	ng/L	P416118	
		Dicofol	1.3	U	ng/L	P416118	
		Dieldrin	0.42	U	ng/L	P416118	
		Endosulfan I	0.42	U	ng/L	P416118	
		Endosulfan II	0.42	U	ng/L	P416118	
		Endosulfan Sulfate	0.31	U	ng/L	P416118	
		Endrin	0.42	U	ng/L	P416118	
		Endrin Aldehyde	0.78	U	ng/L	P416118	
		Endrin Ketone	0.42	U	ng/L	P416118	
		Esfenvalerate	0.78	U	ng/L	P416118	
		Ethalfuralin	0.16	U	ng/L	P416118	
		Fenpropathrin	0.26	U	ng/L	P416118	
		Gamma-BHC	0.13	U	ng/L	P416118	
		Gamma-Chlordane	0.28	I	ng/L	P416118	
		Heptachlor	0.21	U	ng/L	P416118	
		Heptachlor Epoxide	0.26	U	ng/L	P416118	
		Hexachlorobenzene**	1.0	U	ng/L	P416118	
		Kepone	5.2	U	ng/L	P416118	
		Lambda-Cyhalothrin	0.78	U	ng/L	P416118	
		Methoprene	0.78	U	ng/L	P416118	
		Methoxychlor	0.31	U	ng/L	P416118	

Field ID: G1SW0060

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2339053	EPA 8270E	MGK-264	0.21	U	ng/L	P416118	
		Mirex	0.73	U	ng/L	P416118	
		Oxychlordane	0.31	U	ng/L	P416118	
		Permethrin	1.7	U	ng/L	P416118	
		Phenothrin	0.94	U	ng/L	P416118	
		Piperonyl Butoxide	0.44	I	ng/L	P416118	
		Prallethrin	2.1	U	ng/L	P416118	
		Tau-Fluvalinate	0.26	U	ng/L	P416118	
		Tetramethrin	0.78	U	ng/L	P416118	
		Trans-Nonachlor	0.21	U	ng/L	P416118	
		Triclosan Methyl	0.16	U	ng/L	P416118	
		Trifluralin	0.21	U	ng/L	P416118	
		Chlordane	2.6	U	ng/L	P416118	
		Toxaphene	16	U	ng/L	P416118	
2339055	EPA 8321B	2,4-D	0.035		ug/L	P416352	
		Acesulfame K	0.10	U	ug/L	P416535	
		2,4,5-T	0.0040	U	ug/L	P416352	
		AMPA	0.10	U	ug/L	P416535	
		Acetaminophen	0.0080	U	ug/L	P416352	
		Acetamiprid	0.0020	U	ug/L	P416352	
		Endothall	0.25	U	ug/L	P416535	
		Glufosinate	0.10	U	ug/L	P416535	
		Glyphosate	0.10	U	ug/L	P416535	
		Afidopyropen	0.0020	U	ug/L	P416352	
		Bentazon	8.0E-04	U	ug/L	P416352	
		Sucralose	0.14		ug/L	P416535	
		Benzovindiflupyr	0.0020	U	ug/L	P416352	
		Carbamazepine	8.0E-04	U	ug/L	P416352	
		Clothianidin	0.0025	I	ug/L	P416352	
		Dinotefuran	0.0039	I	ug/L	P416352	
		Diuron	0.0020	U	ug/L	P416352	
		Fenuron	0.032	U	ug/L	P416352	
		Fluridone	0.033		ug/L	P416352	
		Imazapyr	0.099		ug/L	P416352	
		Hydrocodone	0.0020	U	ug/L	P416352	
		Ibuprofen	0.080	U	ug/L	P416352	
		Imidacloprid	0.0020	U	ug/L	P416352	MS
		Linuron	0.0040	U	ug/L	P416352	
		Mandestrobin	0.0020	U	ug/L	P416352	
		MCP	0.012	I	ug/L	P416352	
		Naproxen	0.0080	U	ug/L	P416352	
		Primidone	0.0040	U	ug/L	P416352	
		Pyraclostrobin	0.0020	U	ug/L	P416352	
		Silvex	0.0040	U	ug/L	P416352	
		Thiamethoxam	0.0020	U	ug/L	P416352	

Field ID: G1SW0060

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2339055	EPA 8321B	Tolfenpyrad	0.0020	U	ug/L	P416352	
		Triclopyr	0.0040	U	ug/L	P416352	

Ref. Method and Comment:
EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: Sandbag Ditch @ 45th

Collection Date/Time: 07/05/2022 11:30

Field ID: G1SW0094

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2339032	EPA 180.1 Rev. 2.0	Turbidity	16		NTU	P416234	
	SM 2320 B-2011	Total Alkalinity	191		mg CaCO3/L	P416387	
	SM 2540 D-2011	TSS	15		mg/L	P416551	
	SM 4500-F- C-2011	Fluoride	0.55		mg F/L	P416404	
2339033	EPA 350.1 Rev. 2.0	Ammonia-N	0.009		mg N/L	P416350	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	3.1		mg N/L	P416574	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P416416	
	EPA 365.1 Rev. 2.0	Total-P	0.26		mg P/L	P416319	
	SM 5310 B-2011	Organic Carbon	27		mg C/L	P416394	

Ref. Method and Comment:

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

Sample Location: Tadpole Creek @ Caraway Spice Ave

Collection Date/Time: 07/05/2022 14:05

Field ID: G1SW0112

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2339030	DEP SOP: NU-094-1	Color (true)	74		PCU	P416216	
	EPA 180.1 Rev. 2.0	Turbidity	3.6		NTU	P416234	
	EPA 300.0 Rev. 2.1	Chloride	28		mg Cl/L	P416559	
		Sulfate	25		mg SO4/L	P416564	
	SM 2320 B-2011	Total Alkalinity	55		mg CaCO3/L	P416387	
	SM 2540 C-2011	TDS	179		mg/L	P416545	
	SM 2540 D-2011	TSS	2	I	mg/L	P416548	
	SM 4500-F- C-2011	Fluoride	0.12		mg F/L	P416404	
2339031	EPA 350.1 Rev. 2.0	Ammonia-N	0.23		mg N/L	P416645	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P416577	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.28		mg N/L	P416484	
	EPA 365.1 Rev. 2.0	Total-P	0.071		mg P/L	P416337	
	SM 5310 B-2011	Organic Carbon	15		mg C/L	P416394	

Ref. Method and Comment:

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

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P416216

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P416234

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P416559

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P416564

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P416350

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P416645

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P416574

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P416577

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P416416

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P416484

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P416319

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P416337

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

Reference Method: EPA 8270E
Batch ID: P416118

Component	Result	Code	Units
Aldrin	0.65	U	ng/L
Aldrin	0.65	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Bifenthrin	0.50	U	ng/L
Bifenthrin	0.50	U	ng/L
Carbophenothion	0.90	U	ng/L
Carbophenothion	0.90	U	ng/L
Chlorothalonil	1.2	U	ng/L
Chlorothalonil	1.2	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cypermethrin	1.5	U	ng/L
Cypermethrin	1.5	U	ng/L
Dacthal	0.15	U	ng/L
Dacthal	0.15	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDT-p,p'	0.25	U	ng/L
DDT-p,p'	0.25	U	ng/L
Delta-BHC	0.40	U	ng/L
Delta-BHC	0.40	U	ng/L
Deltamethrin	1.2	U	ng/L
Deltamethrin	1.2	U	ng/L
Dichlobenil	0.25	U	ng/L
Dichlobenil	0.25	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P416118

Component	Result	Code	Units
Dicofol	1.2	U	ng/L
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.40	U	ng/L
Endrin	0.40	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Ketone	0.40	U	ng/L
Endrin Ketone	0.40	U	ng/L
Esfenvalerate	0.75	U	ng/L
Esfenvalerate	0.75	U	ng/L
Ethalfuralin	0.15	U	ng/L
Ethalfuralin	0.15	U	ng/L
Fenpropathrin	0.25	U	ng/L
Fenpropathrin	0.25	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Kepone	5.0	U	ng/L
Kepone	5.0	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoxychlor	0.30	U	ng/L
Methoxychlor	0.30	U	ng/L
MGK-264	0.20	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.70	U	ng/L
Mirex	0.70	U	ng/L
Oxychlordane	0.30	U	ng/L
Oxychlordane	0.30	U	ng/L
PCB-1016	2.0	U	ng/L
PCB-1016	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1232	2.0	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P416118

Component	Result	Code	Units
PCB-1242	2.0	U	ng/L
PCB-1242	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1254	2.0	U	ng/L
PCB-1254	2.0	U	ng/L
PCB-1260	2.0	U	ng/L
PCB-1260	2.0	U	ng/L
Permethrin	1.6	U	ng/L
Permethrin	1.6	U	ng/L
Phenothrin	0.90	U	ng/L
Phenothrin	0.90	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Prallethrin	2.0	U	ng/L
Prallethrin	2.0	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tetramethrin	0.75	U	ng/L
Tetramethrin	0.75	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Trifluralin	0.20	U	ng/L
Trifluralin	0.20	U	ng/L

Reference Method: EPA 8276

Batch ID: P416118

Component	Result	Code	Units
Chlordane	2.5	U	ng/L
Chlordane	2.5	U	ng/L
Toxaphene	15	U	ng/L
Toxaphene	15	U	ng/L

Reference Method: EPA 8321B

Batch ID: P416352

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.032	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P416352

Component	Result	Code	Units
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.080	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	0.0040	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Silvex	0.0040	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: P416535

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

Reference Method: SM 2320 B-2011

Batch ID: P416387

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

Reference Method: SM 2540 C-2011

Batch ID: P416545

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011

Batch ID: P416548

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011

Batch ID: P416551

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 4500-F- C-2011
Batch ID: P416404

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P416394

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: DEP SOP: NU-094-1
Batch ID: P416216

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.3		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P416234

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	95.6		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P416559

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P416564

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	98.3		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P416350

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	96.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P416645

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	97.6		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P416574

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P416577

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	97.1		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P416416

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P416484

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

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P416319

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

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P416337

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

Reference Method: EPA 8270E

Batch ID: P416118

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	62.1		P	10 - 93.0
Alpha-BHC	97.9		P	75 - 106
Alpha-Chlordane	91.2		P	50 - 109
Beta-BHC	121		P	36 - 138
Beta-Cyfluthrin	80.1		P	23 - 167
Bifenthrin	54.0		P	11 - 123
Carbophenothion	60.1		P	18 - 96.0
Chlorothalonil	94.0		P	27 - 190
Cis-Nonachlor	67.2		P	40 - 111
Cypermethrin	77.0		P	25 - 155
Dacthal	112		P	72 - 119
DDD-p,p'	65.9		P	47 - 108
DDE-p,p'	85.4		P	48 - 107
DDT-p,p'	76.0		P	49 - 111
Delta-BHC	133		P	54 - 138
Deltamethrin	83.0		P	22 - 189
Dichlobenil	101		P	32 - 113
Dicofol	78.8		P	50 - 108
Dieldrin	94.0		P	56 - 110
Endosulfan I	98.9		P	60 - 105
Endosulfan II	76.4		P	50 - 120
Endosulfan Sulfate	102		P	55 - 121
Endrin	73.6		P	31 - 119
Endrin Aldehyde	100		P	36 - 116
Endrin Ketone	98.5		P	69 - 177
Esfenvalerate	73.8		P	10 - 179
Ethalfuralin	78.6		P	49 - 99.0
Fenpropathrin	75.6		P	35 - 119
Gamma-BHC	112		P	69 - 120
Gamma-Chlordane	84.7		P	45 - 107
Heptachlor	72.7		P	41 - 100
Heptachlor Epoxide	93.3		P	58 - 106
Hexachlorobenzene	72.4		P	39 - 100
Kepone	76.7		P	10 - 191

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P416118

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Lambda-Cyhalothrin	62.3		P	21 - 206
Methoprene	68.9		P	10 - 129
Methoxychlor	88.5		P	61 - 111
MGK-264	104		P	20 - 123
Mirex	53.4		P	10 - 182
Oxychlordane	86.6		P	39 - 110
PCB-1016	81.4		P	48 - 112
PCB-1260	87.8		P	44 - 118
Permethrin	71.8		P	26 - 152
Phenothrin	61.6		P	10 - 109
Piperonyl Butoxide	139		P	19 - 147
Prallethrin	106		P	14 - 109
Tau-Fluvalinate	71.6		P	16 - 134
Tetramethrin	100		P	10 - 125
Trans-Nonachlor	86.9		P	45 - 107
Triclosan Methyl	101		P	60 - 110
Trifluralin	75.5		P	44 - 101

Reference Method: EPA 8276

Batch ID: P416118

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	99.0		P	61 - 116
Toxaphene	86.2		P	48 - 124

Reference Method: EPA 8321B

Batch ID: P416352

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	71.2		P	40 - 150
2,4,5-T	52.8		P	40 - 150
Acetaminophen	89.6		P	30 - 150
Acetamiprid	68.2		P	40 - 150
Afidopyropen	40.1		P	30 - 150
Bentazon	53.8		P	30 - 150
Benzovindiflupyr	76.8		P	40 - 150
Carbamazepine	83.5		P	40 - 150
Clothianidin	96.4		P	40 - 150
Dinotefuran	94.1		P	40 - 150
Diuron	76.0		P	40 - 150
Fenuron	92.0		P	40 - 150
Fluridone	79.4		P	40 - 150
Hydrocodone	87.9		P	40 - 150
Ibuprofen	64.6		P	40 - 150
Imazapyr	89.1		P	40 - 150
Imidacloprid	97.8		P	40 - 150
Linuron	63.1		P	40 - 150
Mandestrobin	79.2		P	40 - 150
MCPP	73.0		P	40 - 150
Naproxen	43.8		P	40 - 150
Primidone	81.3		P	40 - 150
Pyraclostrobin	69.8		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P416352

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Silvex	58.4		P	40 - 150
Thiamethoxam	87.1		P	40 - 150
Tolfenpyrad	33.6		P	30 - 150
Triclopyr	54.8		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P416535

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	78.7		P	40 - 150
AMPA	111		P	40 - 150
Endothall	103		P	40 - 150
Glufosinate	123		P	40 - 150
Glyphosate	104		P	40 - 150
Sucralose	97.1		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P416387

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	94 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P416404

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	102		P	96 - 104

Reference Method: SM 5310 B-2011
Batch ID: P416394

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.3		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P416559

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2338902	Chloride	98.8		P	90 - 110
2338904	Chloride	98.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P416564

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2338902	Sulfate	97.8		P	90 - 110
2338904	Sulfate	95.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P416350

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2339345	Ammonia-N	97.8	99.6	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P416645

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2339926	Ammonia-N	97.0	96.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P416574

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2339101	Kjeldahl Nitrogen	102	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P416577

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2339023	Kjeldahl Nitrogen	98.0	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P416416

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2338401	NO2NO3-N	101	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P416484

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2338938	NO2NO3-N	103	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P416319

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2339097	Total-P	100	101	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P416337

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2339023	Total-P	104	104	P/P	90 - 110

Reference Method: EPA 8270E
 Batch ID: P416118

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2338795	Aldrin	53.5	54.9	P/P	10 - 89.0
2338795	Alpha-BHC	91.0	94.3	P/P	71 - 105
2338795	Alpha-Chlordane	76.7	78.2	P/P	43 - 107
2338795	Beta-BHC	113	109	P/P	57 - 152
2338795	Beta-Cyfluthrin	72.1	64.1	P/P	29 - 186
2338795	Bifenthrin	50.0	37.9	P/P	19 - 119
2338795	Carbophenothion	54.4	49.9	P/P	19 - 107
2338795	Chlorothalonil	118	125	P/P	10 - 245
2338795	Cis-Nonachlor	61.8	56.2	P/P	36 - 110
2338795	Cypermethrin	70.1	63.4	P/P	24 - 169
2338795	Dacthal	99.0	102	P/P	62 - 115
2338795	DDD-p,p'	59.0	55.2	P/P	36 - 109
2338795	DDE-p,p'	74.6	77.3	P/P	30 - 114
2338795	DDT-p,p'	74.3	70.0	P/P	42 - 108
2338795	Delta-BHC	121	123	P/P	60 - 164
2338795	Deltamethrin	79.6	69.1	P/P	10 - 210
2338795	Dichlobenil	86.2	88.4	P/P	23 - 108
2338795	Dicofol	74.1	74.2	P/P	44 - 109
2338795	Dieldrin	80.2	82.9	P/P	37 - 119
2338795	Endosulfan I	88.5	87.8	P/P	52 - 105
2338795	Endosulfan II	68.3	65.2	P/P	35 - 127
2338795	Endosulfan Sulfate	85.3	86.4	P/P	39 - 130
2338795	Endrin	72.7	66.3	P/P	30 - 116
2338795	Endrin Aldehyde	66.1	68.8	P/P	20 - 110
2338795	Endrin Ketone	92.7	89.6	P/P	48 - 134
2338795	Esfenvalerate	73.7	60.8	P/P	10 - 199
2338795	Ethalfuralin	75.2	73.2	P/P	48 - 95.0
2338795	Fenpropathrin	63.3	60.7	P/P	37 - 121
2338795	Gamma-BHC	105	108	P/P	61 - 126
2338795	Gamma-Chlordane	75.5	75.6	P/P	39 - 105
2338795	Heptachlor	69.1	69.1	P/P	38 - 96.0
2338795	Heptachlor Epoxide	84.0	87.3	P/P	42 - 114
2338795	Hexachlorobenzene	72.5	68.6	P/P	39 - 93.0
2338795	Kepone	64.6	70.3	P/P	10 - 215
2338795	Lambda-Cyhalothrin	56.4	48.0	P/P	10 - 204
2338795	Methoprene	52.8	46.5	P/P	17 - 108
2338795	Methoxychlor	81.9	81.5	P/P	56 - 115
2338795	MGK-264	81.4	91.1	P/P	35 - 120
2338795	Mirex	48.0	46.4	P/P	10 - 178
2338795	Oxychlordane	77.5	82.2	P/P	47 - 91.0
2338795	Permethrin	69.1	59.0	P/P	27 - 170
2338795	Phenothrin	56.0	44.7	P/P	10 - 133
2338795	Piperonyl Butoxide	123	131	P/P	23 - 150
2338795	Prallethrin	79.2	84.6	P/P	21 - 113
2338795	Tau-Fluvalinate	74.4	58.7	P/P	16 - 158
2338795	Tetramethrin	83.7	83.2	P/P	22 - 132

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P416118

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2338795	Trans-Nonachlor	72.4	75.7	P/P	43 - 102
2338795	Triclosan Methyl	88.1	88.3	P/P	49 - 109
2338795	Trifluralin	73.0	70.5	P/P	48 - 93.0
2339052	PCB-1016	89.8	95.4	P/P	46 - 111
2339052	PCB-1260	86.1	89.5	P/P	45 - 114

Reference Method: EPA 8276

Batch ID: P416118

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2339052	Chlordane	87.4	101	P/P	53 - 126
2339052	Toxaphene	103	107	P/P	56 - 211

Reference Method: EPA 8321B

Batch ID: P416352

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2339492	2,4-D	82.4	76.3	P/P	40 - 150
2339492	2,4,5-T	56.3	46.9	P/P	40 - 150
2339492	Acetaminophen	123	115	P/P	30 - 150
2339492	Acetamiprid	90.4	112	P/P	40 - 150
2339492	Afidopyropen	64.5	75.4	P/P	30 - 150
2339492	Bentazon	43.2	46.3	P/P	30 - 150
2339492	Benzovindiflupyr	82.8	89.3	P/P	40 - 150
2339492	Carbamazepine	87.9	89.8	P/P	40 - 150
2339492	Clothianidin	109	121	P/P	40 - 150
2339492	Diuron	69.9	73.9	P/P	40 - 150
2339492	Fenuron	91.6	91.6	P/P	40 - 150
2339492	Fluridone	85.3	82.1	P/P	40 - 150
2339492	Hydrocodone	110	107	P/P	40 - 150
2339492	Ibuprofen	65.8	71.4	P/P	40 - 150
2339492	Imazapyr	90.1	88.7	P/P	40 - 150
2339492	Imidacloprid	132	151	P/F	40 - 150
2339492	Linuron	68.2	79.8	P/P	40 - 150
2339492	Mandestrobin	83.8	87.8	P/P	40 - 150
2339492	MCPP	70.1	72.4	P/P	40 - 150
2339492	Naproxen	68.2	66.9	P/P	40 - 150
2339492	Primidone	113	111	P/P	40 - 150
2339492	Pyraclostrobin	84.1	87.4	P/P	40 - 150
2339492	Silvex	68.5	67.3	P/P	40 - 150
2339492	Tolfenpyrad	43.2	48.6	P/P	30 - 150
2339492	Triclopyr	58.5	56.7	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P416535

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2338847	Acesulfame K	74.7	77.2	P/P	40 - 150
2338847	AMPA	116	118	P/P	40 - 150
2338847	Endothall	100	97.4	P/P	40 - 150
2338847	Glufosinate	110	117	P/P	40 - 150
2338847	Glyphosate	106	105	P/P	40 - 150

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P416535

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2338847	Sucralose	96.6	96.7	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P416404

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2339553	Fluoride	104	103	P/P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P416394

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2339375	Organic Carbon	100	101	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P416216

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2338937	Color (true)	2.83	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P416234

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2338937	Turbidity	3.29	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P416559

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2338902	Chloride	2.57	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P416564

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2338902	Sulfate	0.374	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P416350

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2339345	Ammonia-N	1.82	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P416645

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2339926	Ammonia-N	0.572	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P416574

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2339101	Kjeldahl Nitrogen	0.438	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P416577

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2339023	Kjeldahl Nitrogen	1.61	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P416416

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2338401	NO2NO3-N	0.922	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P416484

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2338938	NO2NO3-N	2.47	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P416319

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2339097	Total-P	0.297	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P416337

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2339023	Total-P	0.299	Spike	P	0 - 20

Reference Method: EPA 8270E

Batch ID: P416118

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2338795	Aldrin	2.54	Spike	P	0 - 37
2338795	Alpha-BHC	3.59	Spike	P	0 - 16
2338795	Alpha-Chlordane	1.83	Spike	P	0 - 28
2338795	Beta-BHC	3.28	Spike	P	0 - 32
2338795	Beta-Cyfluthrin	11.8	Spike	P	0 - 41
2338795	Bifenthrin	27.3	Spike	P	0 - 36
2338795	Carbophenothion	8.70	Spike	P	0 - 30
2338795	Chlorothalonil	5.47	Spike	P	0 - 54
2338795	Cis-Nonachlor	9.40	Spike	P	0 - 33
2338795	Cypermethrin	10.0	Spike	P	0 - 38
2338795	Dacthal	3.04	Spike	P	0 - 23
2338795	DDD-p,p'	6.60	Spike	P	0 - 35
2338795	DDE-p,p'	3.52	Spike	P	0 - 27
2338795	DDT-p,p'	5.97	Spike	P	0 - 31
2338795	Delta-BHC	1.47	Spike	P	0 - 30
2338795	Deltamethrin	14.1	Spike	P	0 - 76
2338795	Dichlobenil	2.62	Spike	P	0 - 33
2338795	Dicofol	0.0659	Spike	P	0 - 24
2338795	Dieldrin	3.25	Spike	P	0 - 35
2338795	Endosulfan I	0.774	Spike	P	0 - 25
2338795	Endosulfan II	4.75	Spike	P	0 - 31
2338795	Endosulfan Sulfate	1.33	Spike	P	0 - 38
2338795	Endrin	9.14	Spike	P	0 - 53

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P416118

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2338795	Endrin Aldehyde	4.00	Spike	P	0 - 81
2338795	Endrin Ketone	3.45	Spike	P	0 - 33
2338795	Esfenvalerate	19.1	Spike	P	0 - 46
2338795	Ethalfuralin	2.64	Spike	P	0 - 22
2338795	Fenpropathrin	4.09	Spike	P	0 - 29
2338795	Gamma-BHC	2.74	Spike	P	0 - 17
2338795	Gamma-Chlordane	0.201	Spike	P	0 - 28
2338795	Heptachlor	0.0384	Spike	P	0 - 28
2338795	Heptachlor Epoxide	3.83	Spike	P	0 - 23
2338795	Hexachlorobenzene	5.51	Spike	P	0 - 22
2338795	Kepone	8.37	Spike	P	0 - 61
2338795	Lambda-Cyhalothrin	16.1	Spike	P	0 - 52
2338795	Methoprene	12.7	Spike	P	0 - 38
2338795	Methoxychlor	0.482	Spike	P	0 - 29
2338795	MGK-264	11.3	Spike	P	0 - 41
2338795	Mirex	3.24	Spike	P	0 - 39
2338795	Oxychlordane	5.97	Spike	P	0 - 33
2338795	Permethrin	15.8	Spike	P	0 - 39
2338795	Phenothrin	22.5	Spike	P	0 - 52
2338795	Piperonyl Butoxide	6.43	Spike	P	0 - 91
2338795	Prallethrin	6.50	Spike	P	0 - 34
2338795	Tau-Fluvalinate	23.6	Spike	P	0 - 41
2338795	Tetramethrin	0.620	Spike	P	0 - 43
2338795	Trans-Nonachlor	4.34	Spike	P	0 - 31
2338795	Triclosan Methyl	0.188	Spike	P	0 - 24
2338795	Trifluralin	3.48	Spike	P	0 - 23
2339052	PCB-1016	6.09	Spike	P	0 - 32
2339052	PCB-1260	3.82	Spike	P	0 - 31

Reference Method: EPA 8276

Batch ID: P416118

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2339052	Chlordane	14.4	Spike	P	0 - 25
2339052	Toxaphene	4.27	Spike	P	0 - 26

Reference Method: EPA 8321B

Batch ID: P416352

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2339492	2,4-D	7.75	Spike	P	0 - 30
2339492	2,4,5-T	18.1	Spike	P	0 - 30
2339492	Acetaminophen	6.53	Spike	P	0 - 30
2339492	Acetamiprid	21.5	Spike	P	0 - 30
2339492	Afidopyropen	15.5	Spike	P	0 - 30
2339492	Bentazon	6.92	Spike	P	0 - 30
2339492	Benzovindiflupyr	7.54	Spike	P	0 - 30
2339492	Carbamazepine	2.16	Spike	P	0 - 30
2339492	Clothianidin	6.59	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P416352

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2339492	Dinotefuran	2.99	Spike	P	0 - 30
2339492	Diuron	5.58	Spike	P	0 - 30
2339492	Fenuron	0.0265	Spike	P	0 - 30
2339492	Fluridone	3.83	Spike	P	0 - 30
2339492	Hydrocodone	3.28	Spike	P	0 - 30
2339492	Ibuprofen	8.19	Spike	P	0 - 30
2339492	Imazapyr	1.02	Spike	P	0 - 30
2339492	Imidacloprid	9.31	Spike	P	0 - 30
2339492	Linuron	15.8	Spike	P	0 - 30
2339492	Mandestrobin	4.57	Spike	P	0 - 30
2339492	MCPPP	3.20	Spike	P	0 - 30
2339492	Naproxen	1.85	Spike	P	0 - 30
2339492	Primidone	2.01	Spike	P	0 - 30
2339492	Pyraclostrobin	3.87	Spike	P	0 - 30
2339492	Silvex	1.80	Spike	P	0 - 30
2339492	Thiamethoxam	9.03	Spike	P	0 - 30
2339492	Tolfenpyrad	11.8	Spike	P	0 - 30
2339492	Triclopyr	3.24	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P416535

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2338847	Acesulfame K	3.24	Spike	P	0 - 30
2338847	AMPA	1.64	Spike	P	0 - 30
2338847	Endothall	2.65	Spike	P	0 - 30
2338847	Glufosinate	5.62	Spike	P	0 - 30
2338847	Glyphosate	0.887	Spike	P	0 - 30
2338847	Sucralose	0.148	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P416387

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2339553	Total Alkalinity	0.0629	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2011
Batch ID: P416545

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2338875	TDS	5.46	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P416404

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2339553	Fluoride	0.480	Spike	P	0 - 1.6

Quality Assurance Report Precision

Reference Method: SM 5310 B-2011
Batch ID: P416394

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2339375	Organic Carbon	0.331	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2339052

Field Sample ID: G1SW0111

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	85.2	P	29 - 130
EPA 8270E	Decachlorobiphenyl	46.2	P	31 - 118
EPA 8270E	Tetrachloro-m-xylene	55.0	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	53.6	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	75.3	P	30 - 101
EPA 8276	PCNB	104	P	48 - 121

Lab Sample ID: 2339053

Field Sample ID: G1SW0060

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	83.0	P	29 - 130
EPA 8270E	Decachlorobiphenyl	42.6	P	31 - 118
EPA 8270E	Tetrachloro-m-xylene	57.4	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	50.2	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	66.0	P	30 - 101
EPA 8276	PCNB	102	P	48 - 121

Lab Sample ID: 2339054

Field Sample ID: G1SW0111

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	66.7	P	30 - 160
EPA 8321B	Acetaminophen-d4	103	P	30 - 160
EPA 8321B	Carbamazepine-d10	80.4	P	30 - 160
EPA 8321B	Diuron-d6	54.7	P	30 - 160
EPA 8321B	Endothall-d6	116	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	84.7	P	30 - 160
EPA 8321B	Ibuprofen-d3	64.8	P	30 - 160
EPA 8321B	Primidone-d5	101	P	30 - 160
EPA 8321B	Sucralose-d6	101	P	30 - 160

Lab Sample ID: 2339055

Field Sample ID: G1SW0060

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	58.3	P	30 - 160
EPA 8321B	Acetaminophen-d4	113	P	30 - 160
EPA 8321B	Carbamazepine-d10	59.4	P	30 - 160
EPA 8321B	Diuron-d6	39.5	P	30 - 160
EPA 8321B	Endothall-d6	115	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	110	P	30 - 160
EPA 8321B	Ibuprofen-d3	53.6	P	30 - 160
EPA 8321B	Primidone-d5	98.1	P	30 - 160
EPA 8321B	Sucralose-d6	101	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A113309

Included Lab Sample IDs: 2339030

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.4	99.5	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A113313

Included Lab Sample IDs: 2339030, 2339032

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.0	99.0	P/P	95 - 105

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A113377

Included Lab Sample IDs: 2339033

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.4	97.8	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A113396

Included Lab Sample IDs: 2339052, 2339053

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	104		P	80 - 120
PCB-1260	98.7		P	80 - 120

Reference Method: EPA 8270E

Run ID: A113402

Included Lab Sample IDs: 2339052, 2339053

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	99.8		P	80 - 120
Alpha-BHC	97.0		P	80 - 120
Alpha-Chlordane	99.5		P	80 - 120
Beta-BHC	98.6		P	80 - 120
Beta-Cyfluthrin	106		P	80 - 120
Bifenthrin	92.3		P	80 - 120
Carbophenothion	113		P	80 - 120
Chlorothalonil	99.9		P	80 - 120
Cis-Nonachlor	96.7		P	80 - 120
Cypermethrin	97.6		P	80 - 120
Dacthal	99.2		P	80 - 120
DDD-p,p'	94.4		P	80 - 120
DDE-p,p'	97.5		P	80 - 120
DDT-p,p'	102		P	80 - 120
Delta-BHC	95.6		P	80 - 120
Deltamethrin	102		P	80 - 120
Dichlobenil	86.9		P	80 - 120
Dicofol	99.7		P	80 - 120
Dieldrin	97.7		P	80 - 120
Endosulfan I	101		P	80 - 120
Endosulfan II	103		P	80 - 120
Endosulfan Sulfate	105		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A113402

Included Lab Sample IDs: 2339052, 2339053

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Endrin	102		P	80 - 120
Endrin Aldehyde	110		P	80 - 120
Endrin Ketone	98.8		P	80 - 120
Esfenvalerate	107		P	80 - 120
Ethalfuralin	103		P	80 - 120
Fenpropathrin	102		P	80 - 120
Gamma-BHC	103		P	80 - 120
Gamma-Chlordane	99.9		P	80 - 120
Heptachlor	103		P	80 - 120
Heptachlor Epoxide	95.0		P	80 - 120
Hexachlorobenzene	95.8		P	80 - 120
Kepone	115		P	80 - 120
Lambda-Cyhalothrin	98.0		P	80 - 120
Methoprene	102		P	80 - 120
Methoxychlor	93.7		P	80 - 120
MGK-264	92.9		P	80 - 120
Mirex	97.0		P	80 - 120
Oxychlordane	97.2		P	80 - 120
Permethrin	98.4		P	80 - 120
Phenothrin	99.2		P	80 - 120
Piperonyl Butoxide	86.9		P	80 - 120
Prallethrin	103		P	80 - 120
Tau-Fluvalinate	107		P	80 - 120
Tetramethrin	92.2		P	80 - 120
Trans-Nonachlor	99.7		P	80 - 120
Triclosan Methyl	101		P	80 - 120
Trifluralin	92.6		P	80 - 120

Reference Method: SM 2320 B-2011

Run ID: A113406

Included Lab Sample IDs: 2339030, 2339032

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.3	101	P/P	90 - 110
Total Alkalinity	99.1	98.3	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A113406

Included Lab Sample IDs: 2339030, 2339032

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

Reference Method: SM 5310 B-2011

Run ID: A113409

Included Lab Sample IDs: 2339031, 2339033

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	99.4	98.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A113414

Included Lab Sample IDs: 2339033

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	102	99.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A113433

Included Lab Sample IDs: 2339031

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A113435

Included Lab Sample IDs: 2339031, 2339033

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.5	97.4	P/P	90 - 110
Total-P	98.7	99.1	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A113460

Included Lab Sample IDs: 2339054, 2339055

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	114	120	P/P	60 - 160
Endothall	106	97.0	P/P	60 - 160
Glufosinate	106	106	P/P	60 - 160
Glyphosate	102	112	P/P	60 - 160

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A113462

Included Lab Sample IDs: 2339030

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	97.7	97.3	P/P	90 - 110
Sulfate	97.6	97.5	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A113464

Included Lab Sample IDs: 2339054, 2339055

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	109	109	P/P	50 - 150
2,4,5-T	128	115	P/P	50 - 150
Acetaminophen	105	107	P/P	60 - 160
Acetamiprid	106	112	P/P	50 - 150
Afidopyropen	99.2	102	P/P	50 - 150
Bentazon	101	89.9	P/P	50 - 160
Benzovindiflupyr	111	109	P/P	50 - 150
Carbamazepine	111	112	P/P	60 - 150
Clothianidin	107	107	P/P	60 - 150
Dinotefuran	106	107	P/P	50 - 150
Diuron	102	105	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A113464

Included Lab Sample IDs: 2339054, 2339055

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fenuron	101	104	P/P	60 - 150
Fluridone	118	109	P/P	60 - 160
Hydrocodone	107	105	P/P	60 - 150
Ibuprofen	138	113	P/P	50 - 160
Imazapyr	110	101	P/P	50 - 150
Imidacloprid	103	98.8	P/P	60 - 150
Linuron	107	109	P/P	60 - 150
Mandestrobin	112	110	P/P	50 - 150
MCPP	111	112	P/P	50 - 150
Naproxen	95.5	108	P/P	50 - 160
Primidone	84.7	93.8	P/P	60 - 150
Pyraclostrobin	110	108	P/P	60 - 150
Silvex	115	104	P/P	50 - 150
Thiamethoxam	105	103	P/P	50 - 150
Tolfenpyrad	105	99.3	P/P	60 - 150
Triclopyr	124	125	P/P	50 - 150

Reference Method: EPA 8321B

Run ID: A113494

Included Lab Sample IDs: 2339054, 2339055

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	73.5	92.5	P/P	60 - 160
Sucralose	96.9	98.9	P/P	60 - 160

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A113498

Included Lab Sample IDs: 2339031

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.5	97.9	P/P	90 - 110

Reference Method: EPA 8276

Run ID: A113500

Included Lab Sample IDs: 2339052, 2339053

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	97.8		P	80 - 120
Chlordane	98.8		P	80 - 120
Toxaphene	113		P	80 - 120
Toxaphene	99.9		P	80 - 120

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A113548

Included Lab Sample IDs: 2339031, 2339033

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	102	P/P	90 - 110
Kjeldahl Nitrogen	96.7	96.9	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		Precision	
					LCS	SMP MS
DEP SOP: NU-094-1	Color (true)	98.3				2.83
EPA 180.1 Rev. 2.0	Turbidity	95.6				3.29
EPA 300.0 Rev. 2.1	Chloride	98.8	98.8	98.2		2.57
	Sulfate	98.3	97.8	95.9		0.374
EPA 350.1 Rev. 2.0	Ammonia-N	96.0	97.8	99.6		1.82
	Ammonia-N	97.6	97.0	96.4		0.572
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101	102	101		0.438
	Kjeldahl Nitrogen	97.1	98.0	101		1.61
EPA 353.2 Rev. 2.0	NO2NO3-N	100	101	100		0.922
	NO2NO3-N	102	103	106		2.47
EPA 365.1 Rev. 2.0	Total-P	103	100	101		0.297
	Total-P	104	104	104		0.299
EPA 8270E	Aldrin	62.1	53.5	54.9		2.54
	Alpha-BHC	97.9	91.0	94.3		3.59
	Alpha-Chlordane	91.2	76.7	78.2		1.83
	Beta-BHC	121	113	109		3.28
	Beta-Cyfluthrin	80.1	72.1	64.1		11.8
	Bifenthrin	54.0	50.0	37.9		27.3
	Carbophenothion	60.1	54.4	49.9		8.70
	Chlorothalonil	94.0	118	125		5.47
	Cis-Nonachlor	67.2	61.8	56.2		9.40
	Cypermethrin	77.0	70.1	63.4		10.0
	Dacthal	112	99.0	102		3.04
	DDD-p,p'	65.9	59.0	55.2		6.60
	DDE-p,p'	85.4	74.6	77.3		3.52
	DDT-p,p'	76.0	74.3	70.0		5.97
	Delta-BHC	133	121	123		1.47
	Deltamethrin	83.0	79.6	69.1		14.1
	Dichlobenil	101	86.2	88.4		2.62
	Dicofol	78.8	74.1	74.2		0.0659
	Dieldrin	94.0	80.2	82.9		3.25
	Endosulfan I	98.9	88.5	87.8		0.774
	Endosulfan II	76.4	68.3	65.2		4.75
	Endosulfan Sulfate	102	85.3	86.4		1.33
	Endrin	73.6	72.7	66.3		9.14
	Endrin Aldehyde	100	66.1	68.8		4.00
	Endrin Ketone	98.5	92.7	89.6		3.45
	Esfenvalerate	73.8	73.7	60.8		19.1
	Ethalfuralin	78.6	75.2	73.2		2.64
	Fenpropathrin	75.6	63.3	60.7		4.09
	Gamma-BHC	112	105	108		2.74
	Gamma-Chlordane	84.7	75.5	75.6		0.201
	Heptachlor	72.7	69.1	69.1		0.0384
	Heptachlor Epoxide	93.3	84.0	87.3		3.83
	Hexachlorobenzene	72.4	72.5	68.6		5.51
	Kepone	76.7	64.6	70.3		8.37
	Lambda-Cyhalothrin	62.3	56.4	48.0		16.1
	Methoprene	68.9	52.8	46.5		12.7
	Methoxychlor	88.5	81.9	81.5		0.482
	MGK-264	104	81.4	91.1		11.3
	Mirex	53.4	48.0	46.4		3.24
	Oxychlordane	86.6	77.5	82.2		5.97
	PCB-1016	81.4	89.8	95.4		6.09
	PCB-1260	87.8	86.1	89.5		3.82

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Permethrin	71.8	69.1	59.0			15.8
	Phenothrin	61.6	56.0	44.7			22.5
	Piperonyl Butoxide	139	123	131			6.43
	Prallethrin	106	79.2	84.6			6.50
	Tau-Fluvalinate	71.6	74.4	58.7			23.6
	Tetramethrin	100	83.7	83.2			0.620
	Trans-Nonachlor	86.9	72.4	75.7			4.34
	Triclosan Methyl	101	88.1	88.3			0.188
	Trifluralin	75.5	73.0	70.5			3.48
EPA 8276	Chlordane	99.0	87.4	101			14.4
	Toxaphene	86.2	103	107			4.27
EPA 8321B	2,4-D	71.2	82.4	76.3			7.75
	2,4,5-T	52.8	56.3	46.9			18.1
	Acesulfame K	78.7	74.7	77.2			3.24
	Acetaminophen	89.6	123	115			6.53
	Acetamiprid	68.2	90.4	112			21.5
	Afidopyropen	40.1	64.5	75.4			15.5
	AMPA	111	116	118			1.64
	Bentazon	53.8	43.2	46.3			6.92
	Benzovindiflupyr	76.8	82.8	89.3			7.54
	Carbamazepine	83.5	87.9	89.8			2.16
	Clothianidin	96.4	109	121			6.59
	Dinotefuran	94.1					2.99
	Diuron	76.0	69.9	73.9			5.58
	Endothall	103	100	97.4			2.65
	Fenuron	92.0	91.6	91.6			0.0265
	Fluridone	79.4	85.3	82.1			3.83
	Glufosinate	123	110	117			5.62
	Glyphosate	104	106	105			0.887
	Hydrocodone	87.9	110	107			3.28
	Ibuprofen	64.6	65.8	71.4			8.19
	Imazapyr	89.1	90.1	88.7			1.02
	Imidacloprid	97.8	132	151			9.31
	Linuron	63.1	68.2	79.8			15.8
	Mandestrobin	79.2	83.8	87.8			4.57
	MCPP	73.0	70.1	72.4			3.20
	Naproxen	43.8	68.2	66.9			1.85
	Primidone	81.3	113	111			2.01
	Pyraclostrobin	69.8	84.1	87.4			3.87
	Silvex	58.4	68.5	67.3			1.80
	Sucralose	97.1	96.6	96.7			0.148
	Thiamethoxam	87.1					9.03
	Tolfenpyrad	33.6	43.2	48.6			11.8
	Triclopyr	54.8	58.5	56.7			3.24
SM 2320 B-2011	Total Alkalinity	101				0.0629	
SM 2540 C-2011	TDS					5.46	
SM 4500-F- C-2011	Fluoride	102	104	103			0.480
SM 5310 B-2011	Organic Carbon	97.3	100	101			0.331

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2339030

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2339030, 2339032
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2339030
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2339030
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2339031, 2339033
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2339031, 2339033
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2339031, 2339033
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2339031, 2339033
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2339052, 2339053
EPA 8270E	PCBs in water matrices by GC/MS/MS	2339052, 2339053
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2339052, 2339053
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2339054, 2339055
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2339030, 2339032
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2339030
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2339030, 2339032
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2339030, 2339032
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2339031, 2339033

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: NU-094-1	07/06/2022			07/06/2022 13:46	Samantha L Bates	2339030
EPA 180.1 Rev. 2.0	07/06/2022			07/06/2022 13:54	Anna M. Plaviak	2339030
	07/06/2022			07/06/2022 13:55	Anna M. Plaviak	2339032
EPA 300.0 Rev. 2.1	07/06/2022			07/12/2022 11:25	Anna M. Plaviak	2339030
EPA 350.1 Rev. 2.0	07/06/2022			07/08/2022 12:30	Ping Hua	2339033
	07/06/2022			07/13/2022 13:04	Ping Hua	2339031
EPA 351.2 Rev. 2.0	07/06/2022	07/14/2022 13:49	Samantha L Bates	07/15/2022 17:35	Alexandra J Mattheus	2339033
	07/06/2022	07/14/2022 13:55	Samantha L Bates	07/15/2022 19:13	Alexandra J Mattheus	2339031
EPA 353.2 Rev. 2.0	07/06/2022			07/11/2022 09:50	Beverly Y. Sanders	2339033
	07/06/2022			07/12/2022 12:43	Judith K. Clark	2339031
EPA 365.1 Rev. 2.0	07/06/2022	07/08/2022 17:39	Adam P Silver	07/11/2022 17:02	James L Waggeberby	2339033
	07/06/2022	07/08/2022 17:39	Adam P Silver	07/11/2022 17:39	James L Waggeberby	2339031
EPA 8270E	07/06/2022	07/07/2022 08:00	Fe-Val Siddell	07/09/2022 01:54	Arthur Maknenko	2339052
	07/06/2022	07/07/2022 08:00	Fe-Val Siddell	07/09/2022 04:54	Arthur Maknenko	2339053
	07/06/2022	07/07/2022 08:00	Fe-Val Siddell	07/10/2022 06:09	Michael Poppell	2339052
	07/06/2022	07/07/2022 08:00	Fe-Val Siddell	07/10/2022 06:39	Michael Poppell	2339053
EPA 8276	07/06/2022	07/07/2022 08:00	Fe-Val Siddell	07/13/2022 04:54	Julie Wi	2339052
	07/06/2022	07/07/2022 08:00	Fe-Val Siddell	07/13/2022 16:00	Julie Wi	2339053
EPA 8321B	07/06/2022	07/11/2022 10:00	Umesh Chiluwal	07/11/2022 12:16	Umesh Chiluwal	2339054
	07/06/2022	07/11/2022 10:00	Umesh Chiluwal	07/11/2022 12:29	Umesh Chiluwal	2339055
	07/06/2022	07/11/2022 10:00	Umesh Chiluwal	07/11/2022 21:36	Umesh Chiluwal	2339054
	07/06/2022	07/11/2022 10:00	Umesh Chiluwal	07/11/2022 21:51	Umesh Chiluwal	2339055
	07/06/2022	07/12/2022 09:00	June Rhew	07/12/2022 18:50	Juyoung Kim	2339054
	07/06/2022	07/12/2022 09:00	June Rhew	07/12/2022 19:11	Juyoung Kim	2339055
SM 2320 B-2011	07/06/2022			07/09/2022 09:09	Dale L. Simmons	2339030
	07/06/2022			07/09/2022 13:06	Dale L. Simmons	2339032
SM 2540 C-2011	07/06/2022			07/08/2022 15:22	Yijie Li	2339030
SM 2540 D-2011	07/06/2022			07/08/2022 15:22	Yijie Li	2339030, 2339032
SM 4500-F- C-2011	07/06/2022			07/09/2022 09:09	Dale L. Simmons	2339030
	07/06/2022			07/09/2022 13:06	Dale L. Simmons	2339032
SM 5310 B-2011	07/06/2022			07/08/2022 15:15	Khloe J Berg	2339031
	07/06/2022			07/08/2022 15:30	Khloe J Berg	2339033