

Chemical Analysis Report

NE-DIST-2023-11-30-01

Florida DEP Laboratory
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Tallahassee, FL 32399-2400
DOH Accreditation E31780

Event Description: **Gainesville Lakes**
Request ID: **RQ-2023-11-13-23**
Customer: **NE-DIST**
Project ID: **SMP**

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Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 21-DEC-2023 11:12

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 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: BIVENS ARM LAKE

Collection Date/Time: 11/29/2023 11:45

Field ID: 20020097

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2453793	DEP SOP: NU-094-1	Color (true)	15	A	PCU	P438369	
	EPA 180.1 Rev. 2.0	Turbidity	22		NTU	P438376	
	EPA 300.0 Rev. 2.1	Chloride	12	A	mg Cl/L	P438738	
		Sulfate	14	A	mg SO4/L	P438741	
	SM 2320 B-2011	Total Alkalinity	75		mg CaCO3/L	P438460	
	SM 2540 C-2015	TDS	182		mg/L	P438847	
	SM 2540 D-2015	TSS	30	I	mg/L	P438774	
	SM 4500-F- C-2011	Fluoride	0.16		mg F/L	P438463	
2453796	EPA 350.1 Rev. 2.0	Ammonia-N	0.009		mg N/L	P438569	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	3.5		mg N/L	P438467	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P438474	
	EPA 365.1 Rev. 2.0	Total-P	0.18		mg P/L	P438576	
	SM 5310 B-2011	Organic Carbon	14		mg C/L	P438532	

Ref. Method and Comment:

SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample. The PQL was elevated because of sample matrix interference.

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: LAKE ALICE CENTER

Collection Date/Time: 11/29/2023 12:20

Field ID: 20020052

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2453791	DEP SOP: NU-094-1	Color (true)	30	A	PCU	P438368	
	EPA 180.1 Rev. 2.0	Turbidity	1.1		NTU	P438376	
	EPA 300.0 Rev. 2.1	Chloride	24		mg Cl/L	P438738	
		Sulfate	35		mg SO4/L	P438741	
	SM 2320 B-2011	Total Alkalinity	71		mg CaCO3/L	P438460	
	SM 2540 C-2015	TDS	159		mg/L	P438847	
	SM 2540 D-2015	TSS	2	I	mg/L	P438774	
	SM 4500-F- C-2011	Fluoride	0.28		mg F/L	P438463	
2453792	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P438569	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.51		mg N/L	P438467	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P438474	
	EPA 365.1 Rev. 2.0	Total-P	0.49		mg P/L	P438576	
	SM 5310 B-2011	Organic Carbon	7.8		mg C/L	P438532	
2453804	EPA 8270E	Aldrin	0.67	U	ng/L	P438496	MS
		Alpha-BHC	0.10	U	ng/L	P438496	
		Alpha-Chlordane	0.20	U	ng/L	P438496	
		PCB-1016	2.0	U	ng/L	P438496	
		Beta-BHC	0.10	U	ng/L	P438496	
		PCB-1221	2.0	U	ng/L	P438496	
		Beta-Cyfluthrin	1.3	U	ng/L	P438496	
		PCB-1232	2.0	U	ng/L	P438496	
		Bifenthrin	0.51	U	ng/L	P438496	
		PCB-1242	2.0	U	ng/L	P438496	
		PCB-1248	2.0	U	ng/L	P438496	
		Chlorothalonil	3.7	U	ng/L	P438496	
		PCB-1254	2.0	U	ng/L	P438496	
		Cis-Nonachlor	0.20	U	ng/L	P438496	
		PCB-1260	2.0	UJ	ng/L	P438496	LCS, MS
		Cypermethrin	1.5	U	ng/L	P438496	
		Dacthal	0.15	U	ng/L	P438496	
		DDD-p,p'	0.26	U	ng/L	P438496	
		DDE-p,p'	0.20	U	ng/L	P438496	
		DDT-p,p'	0.82	U	ng/L	P438496	
		Delta-BHC	0.43	I	ng/L	P438496	
		Deltamethrin	1.3	U	ng/L	P438496	
		Dichlobenil	0.26	U	ng/L	P438496	
		Dicofol	1.3	U	ng/L	P438496	
		Diieldrin	1.9	I	ng/L	P438496	
		Endosulfan I	0.41	U	ng/L	P438496	
		Endosulfan II	0.92	U	ng/L	P438496	
		Endosulfan Sulfate	0.31	U	ng/L	P438496	
		Endrin	0.92	U	ng/L	P438496	
		Endrin Aldehyde	0.77	U	ng/L	P438496	
		Endrin Ketone	0.41	U	ng/L	P438496	

Field ID: 20020052

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2453804	EPA 8270E	Esfenvalerate	0.77	U	ng/L	P438496	
		Ethalfuralin	0.15	U	ng/L	P438496	
		Fenpropathrin	0.26	U	ng/L	P438496	
		Gamma-BHC	0.13	U	ng/L	P438496	
		Gamma-Chlordane	0.20	U	ng/L	P438496	
		Heptachlor	0.20	U	ng/L	P438496	
		Heptachlor Epoxide	0.26	U	ng/L	P438496	
		Hexachlorobenzene**	1.0	U	ng/L	P438496	
		Kepone	14	U	ng/L	P438496	
		Lambda-Cyhalothrin	0.77	U	ng/L	P438496	
		Methoprene	0.77	U	ng/L	P438496	
		Methoxychlor	0.31	U	ng/L	P438496	
		MGK-264	0.20	U	ng/L	P438496	
		Mirex	0.36	U	ng/L	P438496	
		Oxychlordane	0.31	U	ng/L	P438496	
		Permethrin	1.6	U	ng/L	P438496	
		Phenothrin	0.92	U	ng/L	P438496	
		Piperonyl Butoxide	0.15	U	ng/L	P438496	
		Prallethrin	2.0	U	ng/L	P438496	
		Tau-Fluvalinate	0.26	U	ng/L	P438496	
		Tetramethrin	0.77	U	ng/L	P438496	
		Trans-Nonachlor	0.20	U	ng/L	P438496	
		Triclosan Methyl	0.15	U	ng/L	P438496	
		Trifluralin	0.20	U	ng/L	P438496	
	EPA 8276	Chlordane	2.0	U	ng/L	P438496	
		Toxaphene	15	U	ng/L	P438496	

Ref. Method and Comment:

SM 2540 D-2015: 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.

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

Sample Location: GLEN SPRING

Collection Date/Time: 11/29/2023 13:55

Field ID: G1NE0952

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2453794	DEP SOP: NU-094-1	Color (true)	2.5	U	PCU	P438368	
	EPA 180.1 Rev. 2.0	Turbidity	0.10	I	NTU	P438376	
	EPA 300.0 Rev. 2.1	Chloride	23		mg Cl/L	P438738	
		Sulfate	19		mg SO4/L	P438741	
	SM 2320 B-2011	Total Alkalinity	137	A	mg CaCO3/L	P438460	
	SM 2540 C-2015	TDS	197		mg/L	P438847	
	SM 2540 D-2015	TSS	2	I	mg/L	P438774	
	SM 4500-F- C-2011	Fluoride	0.31		mg F/L	P438463	
2453797	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	I	mg N/L	P438569	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.091	I	mg N/L	P438467	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.4		mg N/L	P438474	
	EPA 365.1 Rev. 2.0	Total-P	0.34		mg P/L	P438576	
	SM 5310 B-2011	Organic Carbon	0.59	I	mg C/L	P438532	

Ref. Method and Comment:

SM 2540 D-2015: 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: HAMMOCK LAKE

Collection Date/Time: 11/29/2023 14:35

Field ID: G3NE0002

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2453795	DEP SOP: NU-094-1	Color (true)	26		PCU	P438368	
	EPA 180.1 Rev. 2.0	Turbidity	6.7	A	NTU	P438376	
	EPA 300.0 Rev. 2.1	Chloride	41		mg Cl/L	P438738	
		Sulfate	7.6		mg SO4/L	P438741	
	SM 2320 B-2011	Total Alkalinity	76		mg CaCO3/L	P438460	
	SM 2540 C-2015	TDS	170		mg/L	P438847	
	SM 2540 D-2015	TSS	9	I	mg/L	P438774	
	SM 4500-F- C-2011	Fluoride	0.24		mg F/L	P438463	
2453798	EPA 350.1 Rev. 2.0	Ammonia-N	0.25		mg N/L	P438505	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.6		mg N/L	P438526	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.071		mg N/L	P438475	
	EPA 365.1 Rev. 2.0	Total-P	0.18		mg P/L	P438576	
	SM 5310 B-2011	Organic Carbon	11		mg C/L	P438532	

Ref. Method and Comment:

SM 2540 D-2015: 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.

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P438368

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: DEP SOP: NU-094-1
Batch ID: P438369

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P438376

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438738

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438741

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438505

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438569

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P438467

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P438526

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438474

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438475

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P438576

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

Reference Method: EPA 8270E
Batch ID: P438496

Component	Result	Code	Units
Aldrin	0.65	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Bifenthrin	0.50	U	ng/L
Chlorothalonil	3.6	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cypermethrin	1.5	U	ng/L
Dacthal	0.15	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDT-p,p'	0.80	U	ng/L
Delta-BHC	0.40	U	ng/L
Deltamethrin	1.2	U	ng/L
Dichlobenil	0.25	U	ng/L
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.90	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.90	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Ketone	0.40	U	ng/L
Esfenvalerate	0.75	U	ng/L
Ethalfuralin	0.15	U	ng/L
Fenpropathrin	0.25	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Kepone	14	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P438496

Component	Result	Code	Units
Methoprene	0.75	U	ng/L
Methoxychlor	0.30	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.35	U	ng/L
Oxychlordane	0.30	U	ng/L
PCB-1016	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1242	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1254	2.0	U	ng/L
PCB-1260	2.0	U	ng/L
Permethrin	1.6	U	ng/L
Phenothrin	0.90	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Prallethrin	2.0	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tetramethrin	0.75	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Trifluralin	0.20	U	ng/L

Reference Method: EPA 8276

Batch ID: P438496

Component	Result	Code	Units
Chlordane	2.0	U	ng/L
Toxaphene	15	U	ng/L

Reference Method: SM 2320 B-2011

Batch ID: P438460

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

Reference Method: SM 2540 C-2015

Batch ID: P438847

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015

Batch ID: P438774

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011

Batch ID: P438463

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 5310 B-2011
Batch ID: P438532

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: P438368

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	102		P	90 - 110

Reference Method: DEP SOP: NU-094-1
Batch ID: P438369

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	103		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P438376

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438738

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438741

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438505

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	95.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438569

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P438467

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P438526

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438474

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438475

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P438576

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

Reference Method: EPA 8270E
Batch ID: P438496

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	51.2		P	30 - 96.0
Alpha-BHC	81.5		P	70 - 109
Alpha-Chlordane	69.5		P	45 - 107
Beta-BHC	77.1		P	64 - 138
Beta-Cyfluthrin	70.9		P	17 - 141
Bifenthrin	58.1		P	10 - 113
Chlorothalonil	68.2		P	26 - 180
Cis-Nonachlor	62.0		P	37 - 102
Cypermethrin	60.9		P	20 - 133
Dacthal	72.8		P	69 - 114
DDD-p,p'	70.4		P	42 - 105
DDE-p,p'	70.4		P	42 - 106
DDT-p,p'	74.2		P	42 - 107
Delta-BHC	79.4		P	67 - 144
Deltamethrin	74.0		P	15 - 149
Dichlobenil	76.4		P	46 - 117
Dicofol	69.2		P	34 - 114
Dieldrin	71.3		P	50 - 108
Endosulfan I	73.6		P	55 - 104
Endosulfan II	79.8		P	51 - 111
Endosulfan Sulfate	76.2		P	56 - 121
Endrin	82.7		P	10 - 106
Endrin Aldehyde	57.1		P	34 - 114
Endrin Ketone	98.5		P	63 - 177
Esfenvalerate	64.7		P	29 - 143
Ethalfuralin	76.5		P	46 - 96.0
Fenpropathrin	74.5		P	28 - 115
Gamma-BHC	91.3		P	65 - 121
Gamma-Chlordane	77.8		P	39 - 103
Heptachlor	58.1		P	39 - 94.0
Heptachlor Epoxide	68.1		P	54 - 104
Hexachlorobenzene	54.4		P	36 - 100
Kepone	77.9		P	10 - 225
Lambda-Cyhalothrin	58.1		P	10 - 135

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P438496

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Methoprene	65.7		P	10 - 109
Methoxychlor	79.9		P	52 - 112
MGK-264	82.3		P	44 - 117
Mirex	58.8		P	20 - 90.0
Oxychlordane	100		P	44 - 102
PCB-1016	90.8		P	45 - 107
PCB-1260	127		F	40 - 118
Permethrin	62.4		P	18 - 135
Phenothrin	54.2		P	10 - 102
Piperonyl Butoxide	95.3		P	28 - 156
Prallethrin	77.9		P	28 - 113
Tau-Fluvalinate	61.4		P	10 - 123
Tetramethrin	74.8		P	18 - 158
Trans-Nonachlor	66.1		P	39 - 104
Triclosan Methyl	80.1		P	54 - 108
Trifluralin	71.0		P	46 - 97.0

Reference Method: EPA 8276

Batch ID: P438496

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	105		P	52 - 117
Toxaphene	120		P	44 - 125

Reference Method: SM 2320 B-2011

Batch ID: P438460

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.1		P	92 - 105

Reference Method: SM 2540 C-2015

Batch ID: P438847

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	93.6		P	85 - 115

Reference Method: SM 2540 D-2015

Batch ID: P438774

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	97.6		P	85 - 115

Reference Method: SM 4500-F- C-2011

Batch ID: P438463

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	102		P	94 - 106

Reference Method: SM 5310 B-2011

Batch ID: P438532

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

Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P438532

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.6		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438738

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2453793	Chloride	102		P	90 - 110
2453940	Chloride	105		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438741

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2453793	Sulfate	99.8		P	90 - 110
2453940	Sulfate	104		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438505

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2452603	Ammonia-N	97.2	98.2	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438569

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2453797	Ammonia-N	95.6	97.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P438467

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2453854	Kjeldahl Nitrogen	105	90.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P438526

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2454259	Kjeldahl Nitrogen	97.8	105	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438474

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2453696	NO2NO3-N	99.5	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438475

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2453798	NO2NO3-N	101	100	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P438496

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2453358	Aldrin	95.6	110	F/F	24 - 81.0
2453358	Alpha-BHC	93.6	87.4	P/P	65 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P438496

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2453358	Alpha-Chlordane	74.7	81.2	P/P	43 - 119
2453358	Beta-BHC	92.0	96.1	P/P	54 - 165
2453358	Beta-Cyfluthrin	101	102	P/P	27 - 165
2453358	Bifenthrin	71.3	74.0	P/P	17 - 117
2453358	Chlorothalonil	91.6	73.7	P/P	10 - 255
2453358	Cis-Nonachlor	69.1	70.2	P/P	34 - 98.0
2453358	Cypermethrin	68.8	77.8	P/P	25 - 143
2453358	Dacthal	93.2	92.2	P/P	55 - 139
2453358	DDD-p,p'	70.3	76.8	P/P	30 - 109
2453358	DDE-p,p'	75.1	77.4	P/P	35 - 106
2453358	DDT-p,p'	76.8	81.3	P/P	41 - 101
2453358	Delta-BHC	110	109	P/P	58 - 165
2453358	Deltamethrin	81.9	97.4	P/P	10 - 194
2453358	Dichlobenil	90.4	87.7	P/P	22 - 114
2453358	Dicofol	77.6	79.2	P/P	17 - 133
2453358	Dieldrin	78.2	80.8	P/P	45 - 129
2453358	Endosulfan I	99.2	99.2	P/P	49 - 104
2453358	Endosulfan II	97.4	100	P/P	37 - 117
2453358	Endosulfan Sulfate	81.9	80.6	P/P	38 - 128
2453358	Endrin	97.3	99.6	P/P	35 - 116
2453358	Endrin Aldehyde	79.1	74.1	P/P	19 - 108
2453358	Endrin Ketone	101	116	P/P	44 - 134
2453358	Esfenvalerate	73.2	85.3	P/P	27 - 176
2453358	Ethalfuralin	73.8	77.5	P/P	49 - 100
2453358	Fenpropathrin	83.0	87.8	P/P	34 - 117
2453358	Gamma-BHC	122	121	P/P	59 - 129
2453358	Gamma-Chlordane	92.4	98.6	P/P	33 - 107
2453358	Heptachlor	81.4	88.5	P/P	37 - 94.0
2453358	Heptachlor Epoxide	89.8	87.2	P/P	38 - 118
2453358	Hexachlorobenzene	51.5	60.3	P/P	35 - 97.0
2453358	Kepone	85.7	49.0	P/P	10 - 221
2453358	Lambda-Cyhalothrin	59.1	66.1	P/P	23 - 190
2453358	Methoprene	81.2	84.2	P/P	21 - 109
2453358	Methoxychlor	77.9	83.2	P/P	46 - 118
2453358	MGK-264	88.8	92.1	P/P	39 - 122
2453358	Mirex	67.8	76.3	P/P	25 - 90.0
2453358	Oxychlordane	80.4	80.0	P/P	42 - 100
2453358	Permethrin	64.0	75.1	P/P	33 - 181
2453358	Phenothrin	57.9	65.6	P/P	12 - 125
2453358	Piperonyl Butoxide	92.4	97.3	P/P	10 - 178
2453358	Prallethrin	85.1	83.6	P/P	24 - 122
2453358	Tau-Fluvalinate	74.7	85.4	P/P	13 - 151
2453358	Tetramethrin	73.4	78.4	P/P	16 - 172
2453358	Trans-Nonachlor	74.6	76.4	P/P	39 - 100
2453358	Triclosan Methyl	95.1	95.4	P/P	43 - 110
2453358	Trifluralin	71.2	75.5	P/P	45 - 94.0
2453465	PCB-1016	91.8	87.7	P/P	45 - 107
2453465	PCB-1260	137	124	F/F	40 - 112

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8276
Batch ID: P438496

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2453465	Chlordane	115	106	P/P	43 - 123
2453465	Toxaphene	139	129	P/P	27 - 156

Reference Method: SM 4500-F- C-2011
Batch ID: P438463

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2453794	Fluoride	102	101	P/P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P438532

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2453721	Organic Carbon	96.6	95.6	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P438368

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2453791	Color (true)	0.381	Sample	P	0 - 20

Reference Method: DEP SOP: NU-094-1
Batch ID: P438369

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2453793	Color (true)	1.43	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P438376

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2453795	Turbidity	0.148	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438738

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2453793	Chloride	0.661	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438741

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2453793	Sulfate	0.756	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438505

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2452603	Ammonia-N	0.864	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438569

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2453797	Ammonia-N	1.39	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P438467

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2453854	Kjeldahl Nitrogen	10.9	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P438526

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2454259	Kjeldahl Nitrogen	4.17	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P438474

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2453696	NO2NO3-N	0.468	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P438475

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2453798	NO2NO3-N	0.368	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P438576

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2453792	Total-P	1.86	Spike	P	0 - 20

Reference Method: EPA 8270E

Batch ID: P438496

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2453358	Aldrin	13.7	Spike	P	0 - 41
2453358	Alpha-BHC	6.84	Spike	P	0 - 25
2453358	Alpha-Chlordane	8.33	Spike	P	0 - 32
2453358	Beta-BHC	4.40	Spike	P	0 - 33
2453358	Beta-Cyfluthrin	0.477	Spike	P	0 - 43
2453358	Bifenthrin	3.75	Spike	P	0 - 52
2453358	Chlorothalonil	21.7	Spike	P	0 - 82
2453358	Cis-Nonachlor	1.66	Spike	P	0 - 33
2453358	Cypermethrin	12.2	Spike	P	0 - 51
2453358	Dacthal	1.10	Spike	P	0 - 27
2453358	DDD-p,p'	8.77	Spike	P	0 - 39
2453358	DDE-p,p'	3.03	Spike	P	0 - 31
2453358	DDT-p,p'	5.74	Spike	P	0 - 29
2453358	Delta-BHC	1.17	Spike	P	0 - 35
2453358	Deltamethrin	17.3	Spike	P	0 - 100
2453358	Dichlobenil	2.99	Spike	P	0 - 40
2453358	Dicofol	1.98	Spike	P	0 - 37
2453358	Dieldrin	3.20	Spike	P	0 - 27
2453358	Endosulfan I	0.0283	Spike	P	0 - 23
2453358	Endosulfan II	2.66	Spike	P	0 - 34
2453358	Endosulfan Sulfate	1.60	Spike	P	0 - 36
2453358	Endrin	2.35	Spike	P	0 - 45
2453358	Endrin Aldehyde	6.58	Spike	P	0 - 76

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P438496

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2453358	Endrin Ketone	13.4	Spike	P	0 - 43
2453358	Esfenvalerate	15.3	Spike	P	0 - 51
2453358	Ethalfuralin	4.84	Spike	P	0 - 22
2453358	Fenpropathrin	5.65	Spike	P	0 - 49
2453358	Gamma-BHC	0.366	Spike	P	0 - 28
2453358	Gamma-Chlordane	6.55	Spike	P	0 - 40
2453358	Heptachlor	8.41	Spike	P	0 - 29
2453358	Heptachlor Epoxide	2.98	Spike	P	0 - 33
2453358	Hexachlorobenzene	15.9	Spike	P	0 - 36
2453358	Kepone	54.4	Spike	P	0 - 85
2453358	Lambda-Cyhalothrin	11.1	Spike	P	0 - 55
2453358	Methoprene	3.67	Spike	P	0 - 53
2453358	Methoxychlor	6.58	Spike	P	0 - 50
2453358	MGK-264	3.73	Spike	P	0 - 43
2453358	Mirex	11.8	Spike	P	0 - 40
2453358	Oxychlordane	0.522	Spike	P	0 - 31
2453358	Permethrin	15.9	Spike	P	0 - 50
2453358	Phenothrin	12.4	Spike	P	0 - 58
2453358	Piperonyl Butoxide	5.17	Spike	P	0 - 100
2453358	Prallethrin	1.75	Spike	P	0 - 39
2453358	Tau-Fluvalinate	13.4	Spike	P	0 - 54
2453358	Tetramethrin	6.47	Spike	P	0 - 51
2453358	Trans-Nonachlor	2.38	Spike	P	0 - 39
2453358	Triclosan Methyl	0.348	Spike	P	0 - 31
2453358	Trifluralin	5.74	Spike	P	0 - 22
2453465	PCB-1016	4.65	Spike	P	0 - 25
2453465	PCB-1260	10.4	Spike	P	0 - 30

Reference Method: EPA 8276

Batch ID: P438496

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2453465	Chlordane	7.70	Spike	P	0 - 28
2453465	Toxaphene	8.02	Spike	P	0 - 27

Reference Method: SM 2320 B-2011

Batch ID: P438460

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2453794	Total Alkalinity	0.161	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015

Batch ID: P438847

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2453694	TDS	4.48	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 4500-F- C-2011
Batch ID: P438463

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2453794	Fluoride	0.476	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2011
Batch ID: P438532

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2453721	Organic Carbon	0.817	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2453804
Field Sample ID: 20020052

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	73.4	P	37 - 129
EPA 8270E	Decachlorobiphenyl	100	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	44.7	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	52.5	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	72.2	P	28 - 102
EPA 8276	PCNB	98.7	P	49 - 115

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A122963

Included Lab Sample IDs: 2453791, 2453793, 2453794, 2453795

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	102	102	P/P	90 - 110
Color (true)	102	102	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A122967

Included Lab Sample IDs: 2453791, 2453793, 2453794, 2453795

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.5	99.5	P/P	95 - 105

Reference Method: SM 2320 B-2011

Run ID: A123013

Included Lab Sample IDs: 2453791, 2453793, 2453794, 2453795

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	94.5	98.3	P/P	90 - 110
Total Alkalinity	98.3	96.5	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A123013

Included Lab Sample IDs: 2453791, 2453793, 2453794, 2453795

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A123014

Included Lab Sample IDs: 2453792, 2453796, 2453797, 2453798

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	101	101	P/P	90 - 110
NO2NO3-N	101	102	P/P	90 - 110
NO2NO3-N	101	102	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A123027

Included Lab Sample IDs: 2453798

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.6	99.9	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A123034

Included Lab Sample IDs: 2453792, 2453796, 2453797, 2453798

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.8	97.5	P/P	90 - 110
Organic Carbon	97.5	98.4	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A123049

Included Lab Sample IDs: 2453792, 2453796, 2453797

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A123057

Included Lab Sample IDs: 2453792, 2453796, 2453797

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.6	98.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A123082

Included Lab Sample IDs: 2453792, 2453796, 2453797, 2453798

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	97.8	97.3	P/P	90 - 110
Total-P	98.8	97.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A123101

Included Lab Sample IDs: 2453798

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	94.5	98.3	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A123118

Included Lab Sample IDs: 2453791, 2453793, 2453794, 2453795

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	103	103	P/P	90 - 110
Sulfate	102	101	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A123183

Included Lab Sample IDs: 2453804

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	117		P	80 - 120
Alpha-BHC	98.0		P	80 - 120
Alpha-Chlordane	111		P	80 - 120
Beta-BHC	108		P	80 - 120
Beta-Cyfluthrin	96.9		P	80 - 120
Bifenthrin	101		P	80 - 120
Chlorothalonil	105		P	80 - 120
Cis-Nonachlor	101		P	80 - 120
Cypermethrin	101		P	80 - 120
Dacthal	113		P	80 - 120
DDD-p,p'	108		P	80 - 120
DDE-p,p'	109		P	80 - 120
DDT-p,p'	99.5		P	80 - 120
Delta-BHC	101		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A123183
Included Lab Sample IDs: 2453804

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Deltamethrin	98.0		P	80 - 120
Dichlobenil	120		P	80 - 120
Dicofol	101		P	80 - 120
Dieldrin	111		P	80 - 120
Endosulfan I	101		P	80 - 120
Endosulfan II	102		P	80 - 120
Endosulfan Sulfate	108		P	80 - 120
Endrin	101		P	80 - 120
Endrin Aldehyde	99.4		P	80 - 120
Endrin Ketone	96.4		P	80 - 120
Esfenvalerate	99.9		P	80 - 120
Ethalfuralin	98.9		P	80 - 120
Fenpropathrin	102		P	80 - 120
Gamma-BHC	116		P	80 - 120
Gamma-Chlordane	116		P	80 - 120
Heptachlor	102		P	80 - 120
Heptachlor Epoxide	111		P	80 - 120
Hexachlorobenzene	101		P	80 - 120
Kepone	92.2		P	80 - 120
Lambda-Cyhalothrin	98.9		P	80 - 120
Methoprene	98.3		P	80 - 120
Methoxychlor	103		P	80 - 120
MGK-264	110		P	80 - 120
Mirex	96.4		P	80 - 120
Oxychlordane	110		P	80 - 120
Permethrin	104		P	80 - 120
Phenothrin	101		P	80 - 120
Piperonyl Butoxide	98.9		P	80 - 120
Prallethrin	107		P	80 - 120
Tau-Fluvalinate	101		P	80 - 120
Tetramethrin	100		P	80 - 120
Trans-Nonachlor	113		P	80 - 120
Triclosan Methyl	97.6		P	80 - 120
Trifluralin	96.8		P	80 - 120

Reference Method: EPA 8270E
Run ID: A123194
Included Lab Sample IDs: 2453804

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	98.7		P	80 - 120
PCB-1260	99.5		P	80 - 120

Reference Method: EPA 8276
Run ID: A123295
Included Lab Sample IDs: 2453804

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	98.0		P	80 - 120
Toxaphene	103		P	80 - 120

Quality Assurance Report

Calibration Verification

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

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

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
DEP SOP: NU-094-1	Color (true)	102				0.381	
	Color (true)	103				1.43	
EPA 180.1 Rev. 2.0	Turbidity	104				0.148	
EPA 300.0 Rev. 2.1	Chloride	101	102	105		0.661	
	Sulfate	101	99.8	104		0.756	
EPA 350.1 Rev. 2.0	Ammonia-N	95.0	97.2	98.2			0.864
	Ammonia-N	96.4	95.6	97.0			1.39
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	102	105	90.5			10.9
	Kjeldahl Nitrogen	99.8	97.8	105			4.17
EPA 353.2 Rev. 2.0	NO2NO3-N	100	99.5	100			0.468
	NO2NO3-N	101	101	100			0.368
EPA 365.1 Rev. 2.0	Total-P	104					1.86
EPA 8270E	Aldrin	51.2	95.6	110			13.7
	Alpha-BHC	81.5	93.6	87.4			6.84
	Alpha-Chlordane	69.5	74.7	81.2			8.33
	Beta-BHC	77.1	92.0	96.1			4.40
	Beta-Cyfluthrin	70.9	101	102			0.477
	Bifenthrin	58.1	71.3	74.0			3.75
	Chlorothalonil	68.2	91.6	73.7			21.7
	Cis-Nonachlor	62.0	69.1	70.2			1.66
	Cypermethrin	60.9	68.8	77.8			12.2
	Dacthal	72.8	93.2	92.2			1.10
	DDD-p,p'	70.4	70.3	76.8			8.77
	DDE-p,p'	70.4	75.1	77.4			3.03
	DDT-p,p'	74.2	76.8	81.3			5.74
	Delta-BHC	79.4	110	109			1.17
	Deltamethrin	74.0	81.9	97.4			17.3
	Dichlobenil	76.4	90.4	87.7			2.99
	Dicofol	69.2	77.6	79.2			1.98
	Dieldrin	71.3	78.2	80.8			3.20
	Endosulfan I	73.6	99.2	99.2			0.0283
	Endosulfan II	79.8	97.4	100			2.66
	Endosulfan Sulfate	76.2	81.9	80.6			1.60
	Endrin	82.7	97.3	99.6			2.35
	Endrin Aldehyde	57.1	79.1	74.1			6.58
	Endrin Ketone	98.5	101	116			13.4
	Esfenvalerate	64.7	73.2	85.3			15.3
	Ethalfuralin	76.5	73.8	77.5			4.84
	Fenpropathrin	74.5	83.0	87.8			5.65
	Gamma-BHC	91.3	122	121			0.366
	Gamma-Chlordane	77.8	92.4	98.6			6.55
	Heptachlor	58.1	81.4	88.5			8.41
	Heptachlor Epoxide	68.1	89.8	87.2			2.98
	Hexachlorobenzene	54.4	51.5	60.3			15.9
	Kepone	77.9	85.7	49.0			54.4
	Lambda-Cyhalothrin	58.1	59.1	66.1			11.1
	Methoprene	65.7	81.2	84.2			3.67
	Methoxychlor	79.9	77.9	83.2			6.58
	MGK-264	82.3	88.8	92.1			3.73
	Mirex	58.8	67.8	76.3			11.8
	Oxychlordane	100	80.4	80.0			0.522
	PCB-1016	90.8	91.8	87.7			4.65
	PCB-1260	127	137	124			10.4
	Permethrin	62.4	64.0	75.1			15.9

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	SMP
EPA 8270E	Phenothrin	54.2	57.9	65.6		
	Piperonyl Butoxide	95.3	92.4	97.3		
	Prallethrin	77.9	85.1	83.6		
	Tau-Fluvalinate	61.4	74.7	85.4		
	Tetramethrin	74.8	73.4	78.4		
	Trans-Nonachlor	66.1	74.6	76.4		
	Triclosan Methyl	80.1	95.1	95.4		
	Trifluralin	71.0	71.2	75.5		
EPA 8276	Chlordane	105	115	106		
	Toxaphene	120	139	129		
SM 2320 B-2011	Total Alkalinity	97.1				0.161
SM 2540 C-2015	TDS	93.6				4.48
SM 2540 D-2015	TSS	97.6				
SM 4500-F- C-2011	Fluoride	102	102	101		
SM 5310 B-2011	Organic Carbon	95.6	96.6	95.6		

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2453791, 2453793, 2453794, 2453795
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2453791, 2453793, 2453794, 2453795
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2453791, 2453793, 2453794, 2453795
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2453791, 2453793, 2453794, 2453795
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2453792, 2453796, 2453797, 2453798
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2453792, 2453796, 2453797, 2453798
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2453792, 2453796, 2453797, 2453798
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2453792, 2453796, 2453797, 2453798
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2453804
EPA 8270E	PCBs in water matrices by GC/MS/MS	2453804
EPA 8276	Chlordane and Toxaphene in water matrices by GC/MS with Negative Chemical Ionization	2453804
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2453791, 2453793, 2453794, 2453795
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2453791, 2453793, 2453794, 2453795
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2453791, 2453793, 2453794, 2453795
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2453791, 2453793, 2453794, 2453795
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2453792, 2453796, 2453797, 2453798

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	11/30/2023			11/30/2023 14:15	Blanca Fach	2453791
	11/30/2023			11/30/2023 14:17	Blanca Fach	2453794, 2453795
	11/30/2023			11/30/2023 14:26	Blanca Fach	2453793
EPA 180.1 Rev. 2.0	11/30/2023			11/30/2023 13:47	Khloe J Berg	2453791
	11/30/2023			11/30/2023 13:48	Khloe J Berg	2453793
	11/30/2023			11/30/2023 13:52	Khloe J Berg	2453794
EPA 300.0 Rev. 2.1	11/30/2023			11/30/2023 13:53	Khloe J Berg	2453795
	11/30/2023			12/07/2023 22:37	James L Waggeberby	2453793
	11/30/2023			12/08/2023 00:08	James L Waggeberby	2453791
EPA 350.1 Rev. 2.0	11/30/2023			12/08/2023 00:23	James L Waggeberby	2453794
	11/30/2023			12/08/2023 00:38	James L Waggeberby	2453795
	11/30/2023			12/05/2023 15:02	Ping Hua	2453798
EPA 351.2 Rev. 2.0	11/30/2023			12/06/2023 12:07	Ping Hua	2453797
	11/30/2023			12/06/2023 12:12	Ping Hua	2453792
	11/30/2023			12/06/2023 12:13	Ping Hua	2453796
EPA 353.2 Rev. 2.0	11/30/2023	12/05/2023 11:47	Simonne.V. Calhoun	12/06/2023 11:32	Samantha L Bates	2453792
	11/30/2023	12/05/2023 11:47	Simonne.V. Calhoun	12/06/2023 11:34	Samantha L Bates	2453796
	11/30/2023	12/05/2023 11:47	Simonne.V. Calhoun	12/06/2023 11:36	Samantha L Bates	2453797
EPA 365.1 Rev. 2.0	11/30/2023	12/06/2023 11:57	Simonne.V. Calhoun	12/07/2023 15:36	Ping Hua	2453798
	11/30/2023			12/04/2023 14:01	Fadila Guebre	2453792
	11/30/2023			12/04/2023 14:03	Fadila Guebre	2453796
EPA 8270E	11/30/2023			12/04/2023 14:11	Fadila Guebre	2453798
	11/30/2023			12/04/2023 15:11	Fadila Guebre	2453797
	11/30/2023	12/06/2023 13:01	Adam P Silver	12/07/2023 10:46	Chandler E Cox	2453792
EPA 8276	11/30/2023	12/06/2023 13:01	Adam P Silver	12/07/2023 10:53	Chandler E Cox	2453796
	11/30/2023	12/06/2023 13:01	Adam P Silver	12/07/2023 10:54	Chandler E Cox	2453797
	11/30/2023	12/06/2023 13:01	Adam P Silver	12/07/2023 10:55	Chandler E Cox	2453798
SM 2320 B-2011	11/30/2023	12/04/2023 08:00	Fe-Val Siddell	12/08/2023 06:17	Lipi Saha	2453804
	11/30/2023	12/04/2023 08:00	Fe-Val Siddell	12/12/2023 06:37	Julie Wi	2453804
	11/30/2023	12/04/2023 08:00	Fe-Val Siddell	12/16/2023 13:31	Arthur Maknenko	2453804
SM 2540 C-2015	11/30/2023			12/02/2023 06:42	Dale L. Simmons	2453794
	11/30/2023			12/02/2023 08:32	Dale L. Simmons	2453791
	11/30/2023			12/02/2023 09:19	Dale L. Simmons	2453793
SM 2540 D-2015	11/30/2023			12/02/2023 09:32	Dale L. Simmons	2453795
	11/30/2023			12/05/2023 16:11	Yijie Li	2453791, 2453793, 2453794, 2453795
	11/30/2023			12/05/2023 16:11	Yijie Li	2453791, 2453793, 2453794, 2453795
SM 4500-F- C-2011	11/30/2023			12/02/2023 06:31	Dale L. Simmons	2453794
	11/30/2023			12/02/2023 08:32	Dale L. Simmons	2453791
	11/30/2023			12/02/2023 09:19	Dale L. Simmons	2453793
	11/30/2023			12/02/2023 09:32	Dale L. Simmons	2453795

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 5310 B-2011	11/30/2023			12/05/2023 17:07	Kenneth H Lee	2453792
	11/30/2023			12/05/2023 17:47	Kenneth H Lee	2453796
	11/30/2023			12/05/2023 18:00	Kenneth H Lee	2453797
	11/30/2023			12/05/2023 18:13	Kenneth H Lee	2453798