

Chemical Analysis Report

SO-DIST-2024-01-25-01

Florida DEP Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

Event Description: **2024 SMP: Desoto Branches**
Request ID: **RQ-2024-01-29-21**
Customer: **SO-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FLDEP South District Office
2295 Victoria Ave. Suite 314
Fort Myers, FL 33901-3381
Attn: Nicole Reistad

For additional information please contact
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Certified by: Colin Wright, Program Administrator

Date Certified: 14-FEB-2024 15:01



NON-CONFORMANCE REPORT INCLUDED

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: BRANDY BRANCH AT SR 70

Collection Date/Time: 01/24/2024 09:00

Field ID: G3SD0083

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2463133	DEP SOP: NU-094-1	Color (true)	190		PCU	P440450	
	EPA 180.1 Rev. 2.0	Turbidity	4.7		NTU	P440458	
	EPA 300.0 Rev. 2.1	Chloride	20		mg Cl/L	P440678	
		Sulfate	170		mg SO4/L	P440898	
	SM 2320 B-2011	Total Alkalinity	12		mg CaCO3/L	P440872	
	SM 2540 C-2015	TDS	326	A	mg/L	P440997	
	SM 2540 D-2015	TSS	6	IA	mg/L	P440828	
2463135	SM 4500-F- C-2011	Fluoride	0.24		mg F/L	P440875	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.020		mg N/L	P440817	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P440562	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.25		mg N/L	P440683	
	EPA 365.1 Rev. 2.0	Total-P	0.12		mg P/L	P440797	
2463172	SM 5310 B-2014	Organic Carbon	25		mg C/L	P440786	
	EPA 8270E	Aldrin	0.67	U	ng/L	P440412	
		Alpha-BHC	0.10	U	ng/L	P440412	
		Alpha-Chlordane	0.21	U	ng/L	P440412	
		PCB-1016	2.1	U	ng/L	P440412	
		Beta-BHC	0.10	U	ng/L	P440412	
		PCB-1221	2.1	U	ng/L	P440412	
		Beta-Cyfluthrin	1.3	U	ng/L	P440412	
		PCB-1232	2.1	U	ng/L	P440412	
		Bifenthrin	0.51	U	ng/L	P440412	
		PCB-1242	2.1	U	ng/L	P440412	
		PCB-1248	2.1	U	ng/L	P440412	
		Chlorothalonil	3.7	U	ng/L	P440412	
		PCB-1254	2.1	U	ng/L	P440412	
		Cis-Nonachlor	0.21	U	ng/L	P440412	
		PCB-1260	2.1	U	ng/L	P440412	
		Cypermethrin	1.5	U	ng/L	P440412	
		Dacthal	0.15	U	ng/L	P440412	
		DDD-p,p'	0.26	U	ng/L	P440412	
		DDE-p,p'	0.21	U	ng/L	P440412	
		DDT-p,p'	0.82	U	ng/L	P440412	
		Delta-BHC	0.41	U	ng/L	P440412	
		Deltamethrin	1.3	U	ng/L	P440412	
		Dichlobenil	0.26	U	ng/L	P440412	
		Dicofol	1.3	U	ng/L	P440412	
		Diieldrin	0.41	U	ng/L	P440412	
		Endosulfan I	0.41	U	ng/L	P440412	MS, RPD
		Endosulfan II	0.92	U	ng/L	P440412	
		Endosulfan Sulfate	0.31	UJ	ng/L	P440412	LCS, MS
		Endrin	0.92	U	ng/L	P440412	
		Endrin Aldehyde	0.77	U	ng/L	P440412	
		Endrin Ketone	0.41	U	ng/L	P440412	

Field ID: G3SD0083

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2463172	EPA 8270E	Esfenvalerate	0.77	U	ng/L	P440412	
		Ethalfuralin	0.15	U	ng/L	P440412	
		Fenpropathrin	0.26	U	ng/L	P440412	
		Gamma-BHC	0.13	U	ng/L	P440412	
		Gamma-Chlordane	0.21	U	ng/L	P440412	
		Heptachlor	0.21	U	ng/L	P440412	
		Heptachlor Epoxide	0.26	U	ng/L	P440412	MS, RPD
		Hexachlorobenzene**	1.0	U	ng/L	P440412	
		Kepone	14	U	ng/L	P440412	
		Lambda-Cyhalothrin	0.77	U	ng/L	P440412	
		Methoprene	0.77	U	ng/L	P440412	
		Methoxychlor	0.31	U	ng/L	P440412	
		MGK-264	0.21	UJ	ng/L	P440412	LCS, MS
		Mirex	0.36	U	ng/L	P440412	
		Oxychlordane	0.31	U	ng/L	P440412	MS, RPD
		Permethrin	1.6	U	ng/L	P440412	
		Phenothrin	0.92	U	ng/L	P440412	
		Piperonyl Butoxide	0.15	U	ng/L	P440412	
		Prallethrin	2.1	U	ng/L	P440412	
		Tau-Fluvalinate	0.26	U	ng/L	P440412	
		Tetramethrin	0.77	U	ng/L	P440412	
		Trans-Nonachlor	0.21	U	ng/L	P440412	MS
		Triclosan Methyl	0.15	U	ng/L	P440412	MS, RPD
		Trifluralin	0.21	U	ng/L	P440412	
	EPA 8276	Chlordane	2.1	UJ	ng/L	P440412	SUR
		Toxaphene	15	UJ	ng/L	P440412	SUR

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8276: Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: BUZZARD ROOST BRANCH AT SR70

Collection Date/Time: 01/24/2024 09:30

Field ID: G3SD0173					Matrix: W-SURF-FRH		
Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2463137	DEP SOP: NU-094-1	Color (true)	220		PCU	P440450	
	EPA 180.1 Rev. 2.0	Turbidity	1.7		NTU	P440458	
	EPA 300.0 Rev. 2.1	Chloride	19		mg Cl/L	P440678	
		Sulfate	110		mg SO4/L	P440898	
	SM 2320 B-2011	Total Alkalinity	14		mg CaCO3/L	P440872	
	SM 2540 C-2015	TDS	212		mg/L	P440997	
	SM 2540 D-2015	TSS	2	I	mg/L	P440828	
	SM 4500-F- C-2011	Fluoride	0.25		mg F/L	P440875	
2463140	EPA 350.1 Rev. 2.0	Ammonia-N	0.014		mg N/L	P440817	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P440562	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.040		mg N/L	P440683	
	EPA 365.1 Rev. 2.0	Total-P	0.18		mg P/L	P440656	MS
	SM 5310 B-2014	Organic Carbon	25		mg C/L	P440786	

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: BUD SLOUGH CLAY GULLY RD

Collection Date/Time: 01/24/2024 10:25

Field ID: G3SD0243

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2463138	DEP SOP: NU-094-1	Color (true)	160		PCU	P440450	
	EPA 180.1 Rev. 2.0	Turbidity	4.4		NTU	P440458	
	EPA 300.0 Rev. 2.1	Chloride	26		mg Cl/L	P440678	
		Sulfate	210		mg SO4/L	P441172	
	SM 2320 B-2011	Total Alkalinity	12		mg CaCO3/L	P440872	
	SM 2540 C-2015	TDS	384		mg/L	P440997	
	SM 2540 D-2015	TSS	3	I	mg/L	P440828	
	SM 4500-F- C-2011	Fluoride	0.35		mg F/L	P440875	
2463141	EPA 350.1 Rev. 2.0	Ammonia-N	0.090		mg N/L	P440817	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.5		mg N/L	P440562	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.37		mg N/L	P440683	
	EPA 365.1 Rev. 2.0	Total-P	0.37		mg P/L	P440657	
	SM 5310 B-2014	Organic Carbon	30		mg C/L	P440786	

Ref. Method and Comment:
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: LAKE MYAKKA (LOWER) AT MIDDLE

Collection Date/Time: 01/24/2024 11:50

Field ID: G3SD0107					Matrix: W-SURF-FRH		
Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2463139	DEP SOP: NU-094-1	Color (true)	140		PCU	P440450	
	EPA 180.1 Rev. 2.0	Turbidity	3.8		NTU	P440458	
	EPA 300.0 Rev. 2.1	Chloride	26		mg Cl/L	P440678	
		Sulfate	170		mg SO4/L	P441172	
	SM 2320 B-2011	Total Alkalinity	22		mg CaCO3/L	P440872	
	SM 2540 C-2015	TDS	357		mg/L	P440997	
	SM 2540 D-2015	TSS	4	I	mg/L	P440828	
	SM 4500-F- C-2011	Fluoride	0.17		mg F/L	P440875	
2463142	EPA 350.1 Rev. 2.0	Ammonia-N	0.010		mg N/L	P440817	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P440562	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.053		mg N/L	P440683	
	EPA 365.1 Rev. 2.0	Total-P	0.26		mg P/L	P440657	
	SM 5310 B-2014	Organic Carbon	22		mg C/L	P440787	

Ref. Method and Comment:
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Non-Conformance Report

NCR ID: 10286

Event(s)	Job(s)	Sample(s)	Test(s)
SO-DIST-2024-01-25-01			
NCR Type: SHIPPING/RECEIVING		NCR Category: Sample Integrity	
Observation: Sample container arrived empty.			
Site: G3SD0083 Tests: W-E8321-DI, W-E8321-MS			
Resolution: Unable to log in sample.			

Authorized by/Date: Kyle Klug 1/29/2024

The Non-Conformance Report details exceptions or problems encountered with the events/jobs/samples/test.
Please address questions to:

Chemistry	Colin Wright	(850) 245-8085
Biology	Cheryl Swanson	(850) 245-8177

Quality Assurance Report

Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P440450

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P440458

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P440678

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P440898

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P441172

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P440817

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P440562

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P440683

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P440656

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P440657

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P440797

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

Reference Method: EPA 8270E
Batch ID: P440412

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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E
Batch ID: P440412

Component	Result	Code	Units
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: P440412

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

Reference Method: SM 2320 B-2011
Batch ID: P440872

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

Reference Method: SM 2540 C-2015
Batch ID: P440997

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P440828

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P440875

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2014
Batch ID: P440786

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

Quality Assurance Report

Method Blank Results

Reference Method: SM 5310 B-2014
Batch ID: P440787

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: P440450

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	100		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P440458

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P440678

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P440898

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P441172

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P440817

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P440562

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P440683

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: P440656

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	107		P	90 - 110

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P440657

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	108		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P440797

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

Reference Method: EPA 8270E
Batch ID: P440412

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	64.4		P	30 - 96.0
Alpha-BHC	81.4		P	70 - 109
Alpha-Chlordane	103		P	45 - 107
Beta-BHC	96.5		P	64 - 138
Beta-Cyfluthrin	108		P	17 - 141
Bifenthrin	37.3		P	10 - 113
Chlorothalonil	102		P	26 - 180
Cis-Nonachlor	57.0		P	37 - 102
Cypermethrin	58.2		P	20 - 133
Dacthal	95.5		P	69 - 114
DDD-p,p'	57.7		P	42 - 105
DDE-p,p'	57.7		P	42 - 106
DDT-p,p'	71.4		P	42 - 107
Delta-BHC	71.7		P	67 - 144
Deltamethrin	125		P	15 - 149
Dichlobenil	90.0		P	46 - 117
Dicofol	72.7		P	34 - 114
Dieldrin	85.1		P	50 - 108
Endosulfan I	88.0		P	55 - 104
Endosulfan II	86.2		P	51 - 111
Endosulfan Sulfate	127		F	56 - 121
Endrin	94.5		P	10 - 106
Endrin Aldehyde	93.1		P	34 - 114
Endrin Ketone	101		P	63 - 177
Esfenvalerate	103		P	29 - 143
Ethalfuralin	91.6		P	46 - 96.0
Fenpropathrin	41.9		P	28 - 115
Gamma-BHC	80.4		P	65 - 121
Gamma-Chlordane	62.5		P	39 - 103
Heptachlor	47.6		P	39 - 94.0
Heptachlor Epoxide	101		P	54 - 104
Hexachlorobenzene	48.8		P	36 - 100
Kepone	129		P	10 - 225
Lambda-Cyhalothrin	67.9		P	10 - 135
Methoprene	38.5		P	10 - 109
Methoxychlor	64.7		P	52 - 112
MGK-264	129		F	44 - 117
Mirex	36.8		P	20 - 90.0
Oxychlordane	83.4		P	44 - 102
PCB-1016	73.3		P	45 - 107

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P440412

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
PCB-1260	77.4		P	40 - 118
Permethrin	97.2		P	18 - 135
Phenothrin	71.1		P	10 - 102
Piperonyl Butoxide	105		P	28 - 156
Prallethrin	110		P	28 - 113
Tau-Fluvalinate	51.9		P	10 - 123
Tetramethrin	103		P	18 - 158
Trans-Nonachlor	78.6		P	39 - 104
Triclosan Methyl	94.2		P	54 - 108
Trifluralin	92.1		P	46 - 97.0

Reference Method: EPA 8276
Batch ID: P440412

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	101		P	52 - 117
Toxaphene	110		P	44 - 125

Reference Method: SM 2320 B-2011
Batch ID: P440872

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.6		P	92 - 105

Reference Method: SM 2540 C-2015
Batch ID: P440997

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	96.4		P	85 - 115

Reference Method: SM 2540 D-2015
Batch ID: P440828

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	92.8		P	85 - 115

Reference Method: SM 4500-F- C-2011
Batch ID: P440875

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

Reference Method: SM 5310 B-2014
Batch ID: P440786

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.1		P	85 - 115

Reference Method: SM 5310 B-2014
Batch ID: P440787

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-2014
Batch ID: P440787

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.9		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P440678

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2463089	Chloride	102		P	90 - 110
2463137	Chloride	104		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P440898

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2463726	Sulfate	102		P	90 - 110
2463914	Sulfate	102		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P441172

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2465249	Sulfate	99.4		P	90 - 110
2465264	Sulfate	99.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P440817

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2463122	Ammonia-N	91.6	97.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P440562

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2463123	Kjeldahl Nitrogen	95.3	108	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P440683

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2463122	NO2NO3-N	98.8	98.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P440656

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2463064	Total-P	110	108	F/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P440657

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2463223	Total-P	106	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P440797

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2464015	Total-P	101	107	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P440412

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2462903	Aldrin	72.7	56.8	P/P	24 - 81.0
2462903	Alpha-BHC	65.0	70.8	P/P	65 - 110
2462903	Alpha-Chlordane	118	76.1	P/P	43 - 119
2462903	Beta-BHC	116	107	P/P	54 - 165
2462903	Beta-Cyfluthrin	106	90.1	P/P	27 - 165
2462903	Bifenthrin	48.8	46.7	P/P	17 - 117
2462903	Chlorothalonil	43.1	56.6	P/P	10 - 255
2462903	Cis-Nonachlor	69.5	72.4	P/P	34 - 98.0
2462903	Cypermethrin	74.4	58.5	P/P	25 - 143
2462903	Dacthal	73.3	95.8	P/P	55 - 139
2462903	DDD-p,p'	65.0	58.2	P/P	30 - 109
2462903	DDE-p,p'	83.2	71.0	P/P	35 - 106
2462903	DDT-p,p'	62.7	73.9	P/P	41 - 101
2462903	Delta-BHC	67.6	67.3	P/P	58 - 165
2462903	Deltamethrin	80.9	132	P/P	10 - 194
2462903	Dichlobenil	52.1	54.0	P/P	22 - 114
2462903	Dicofol	63.8	73.3	P/P	17 - 133
2462903	Dieldrin	126	109	P/P	45 - 129
2462903	Endosulfan I	109	83.3	F/P	49 - 104
2462903	Endosulfan II	99.8	96.8	P/P	37 - 117
2462903	Endosulfan Sulfate	119	134	P/F	38 - 128
2462903	Endrin	81.4	97.1	P/P	35 - 116
2462903	Endrin Aldehyde	82.9	73.5	P/P	19 - 108
2462903	Endrin Ketone	89.7	103	P/P	44 - 134
2462903	Esfenvalerate	96.4	110	P/P	27 - 176
2462903	Ethalfuralin	82.3	86.4	P/P	49 - 100
2462903	Fenpropathrin	54.0	47.6	P/P	34 - 117
2462903	Gamma-BHC	88.2	82.6	P/P	59 - 129
2462903	Gamma-Chlordane	106	94.0	P/P	33 - 107
2462903	Heptachlor	49.7	52.0	P/P	37 - 94.0
2462903	Heptachlor Epoxide	125	77.8	F/P	38 - 118
2462903	Hexachlorobenzene	45.8	47.4	P/P	35 - 97.0
2462903	Kepone	101	94.6	P/P	10 - 221
2462903	Lambda-Cyhalothrin	48.7	61.2	P/P	23 - 190
2462903	Methoprene	61.3	50.5	P/P	21 - 109
2462903	Methoxychlor	72.0	68.7	P/P	46 - 118
2462903	MGK-264	137	93.9	F/P	39 - 122
2462903	Mirex	45.7	44.7	P/P	25 - 90.0
2462903	Oxychlordane	114	82.0	F/P	42 - 100
2462903	Permethrin	83.3	92.8	P/P	33 - 181
2462903	Phenothrin	88.0	74.3	P/P	12 - 125
2462903	Piperonyl Butoxide	114	108	P/P	10 - 178
2462903	Prallethrin	108	79.3	P/P	24 - 122
2462903	Tau-Fluvalinate	47.9	74.0	P/P	13 - 151
2462903	Tetramethrin	82.2	80.8	P/P	16 - 172
2462903	Trans-Nonachlor	107	111	F/F	39 - 100
2462903	Triclosan Methyl	135	91.2	F/P	43 - 110
2462903	Trifluralin	75.0	86.7	P/P	45 - 94.0
2463408	PCB-1016	71.6	63.3	P/P	45 - 107
2463408	PCB-1260	77.6	66.6	P/P	40 - 112

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8276
Batch ID: P440412

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2463408	Chlordane	94.0	85.2	P/P	43 - 123
2463408	Toxaphene	94.5	87.6	P/P	27 - 156

Reference Method: SM 4500-F- C-2011
Batch ID: P440875

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2463058	Fluoride	101	102	P/P	94 - 106

Reference Method: SM 5310 B-2014
Batch ID: P440786

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2463063	Organic Carbon	98.4	99.8	P/P	85 - 115

Reference Method: SM 5310 B-2014
Batch ID: P440787

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2463142	Organic Carbon	98.4	102	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P440450

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2463272	Color (true)	1.05	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P440458

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2463055	Turbidity	0.0	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P440678

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2463089	Chloride	0.715	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P441172

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2465249	Sulfate	0.287	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P440817

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2463122	Ammonia-N	4.55	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P440562

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2463123	Kjeldahl Nitrogen	7.26	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P440683

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2463122	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P440656

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2463064	Total-P	2.34	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P440657

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2463223	Total-P	0.0219	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P440797

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2464015	Total-P	5.16	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P440412

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2462903	Aldrin	24.6	Spike	P	0 - 41
2462903	Alpha-BHC	8.52	Spike	P	0 - 25
2462903	Alpha-Chlordane	21.6	Spike	P	0 - 32
2462903	Beta-BHC	8.01	Spike	P	0 - 33
2462903	Beta-Cyfluthrin	16.3	Spike	P	0 - 43
2462903	Bifenthrin	4.35	Spike	P	0 - 52
2462903	Chlorothalonil	27.2	Spike	P	0 - 82
2462903	Cis-Nonachlor	4.12	Spike	P	0 - 33
2462903	Cypermethrin	24.0	Spike	P	0 - 51
2462903	Dacthal	26.6	Spike	P	0 - 27
2462903	DDD-p,p'	11.1	Spike	P	0 - 39
2462903	DDE-p,p'	15.8	Spike	P	0 - 31
2462903	DDT-p,p'	16.3	Spike	P	0 - 29
2462903	Delta-BHC	0.472	Spike	P	0 - 35
2462903	Deltamethrin	47.7	Spike	P	0 - 100
2462903	Dichlobenil	3.19	Spike	P	0 - 40
2462903	Dicofol	13.8	Spike	P	0 - 37
2462903	Dieldrin	12.5	Spike	P	0 - 27
2462903	Endosulfan I	27.2	Spike	F	0 - 23
2462903	Endosulfan II	3.05	Spike	P	0 - 34
2462903	Endosulfan Sulfate	12.1	Spike	P	0 - 36
2462903	Endrin	17.6	Spike	P	0 - 45
2462903	Endrin Aldehyde	12.0	Spike	P	0 - 76
2462903	Endrin Ketone	13.6	Spike	P	0 - 43
2462903	Esfenvalerate	13.6	Spike	P	0 - 51
2462903	Ethalfuralin	4.88	Spike	P	0 - 22
2462903	Fenpropathrin	12.6	Spike	P	0 - 49
2462903	Gamma-BHC	6.49	Spike	P	0 - 28
2462903	Gamma-Chlordane	9.46	Spike	P	0 - 40
2462903	Heptachlor	4.49	Spike	P	0 - 29
2462903	Heptachlor Epoxide	39.7	Spike	F	0 - 33
2462903	Hexachlorobenzene	3.36	Spike	P	0 - 36
2462903	Kepone	6.14	Spike	P	0 - 85
2462903	Lambda-Cyhalothrin	22.6	Spike	P	0 - 55
2462903	Methoprene	19.3	Spike	P	0 - 53
2462903	Methoxychlor	4.80	Spike	P	0 - 50
2462903	MGK-264	37.3	Spike	P	0 - 43

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P440412

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2462903	Mirex	2.14	Spike	P	0 - 40
2462903	Oxychlordane	32.3	Spike	F	0 - 31
2462903	Permethrin	10.8	Spike	P	0 - 50
2462903	Phenothrin	16.9	Spike	P	0 - 58
2462903	Piperonyl Butoxide	5.93	Spike	P	0 - 100
2462903	Prallethrin	30.2	Spike	P	0 - 39
2462903	Tau-Fluvalinate	42.7	Spike	P	0 - 54
2462903	Tetramethrin	1.67	Spike	P	0 - 51
2462903	Trans-Nonachlor	2.80	Spike	P	0 - 39
2462903	Triclosan Methyl	38.6	Spike	F	0 - 31
2462903	Trifluralin	14.5	Spike	P	0 - 22
2463408	PCB-1016	12.3	Spike	P	0 - 25
2463408	PCB-1260	15.3	Spike	P	0 - 30

Reference Method: EPA 8276
Batch ID: P440412

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2463408	Chlordane	9.84	Spike	P	0 - 28
2463408	Toxaphene	7.56	Spike	P	0 - 27

Reference Method: SM 2320 B-2011
Batch ID: P440872

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2463058	Total Alkalinity	1.10	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P440997

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2463133	TDS	2.76	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P440875

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2463058	Fluoride	0.527	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2014
Batch ID: P440786

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2463063	Organic Carbon	1.39	Spike	P	0 - 15

Quality Assurance Report
Precision

Reference Method: SM 5310 B-2014
Batch ID: P440787

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2463142	Organic Carbon	2.13	Spike	P	0 - 15

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

Quality Assurance Report
Surrogates

Lab Sample ID: 2463172
Field Sample ID: G3SD0083

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	115	P	37 - 129
EPA 8270E	Decachlorobiphenyl	86.7	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	55.0	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	84.0	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	94.1	P	23 - 110
EPA 8276	PCNB	130	F	51 - 130

Quality Assurance Report
Calibration Verification

Reference Method: DEP SOP: NU-094-1
Run ID: A123821
Included Lab Sample IDs: 2463133, 2463137, 2463138, 2463139

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.7	101	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A123828
Included Lab Sample IDs: 2463133, 2463137, 2463138, 2463139

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.5	100	P/P	95 - 105

Reference Method: EPA 8270E
Run ID: A123893
Included Lab Sample IDs: 2463172

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	95.0		P	80 - 120
PCB-1260	96.9		P	80 - 120

Reference Method: EPA 8276
Run ID: A123904
Included Lab Sample IDs: 2463172

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	99.3		P	80 - 120
Toxaphene	98.3		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A123908
Included Lab Sample IDs: 2463133, 2463137, 2463138, 2463139

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	102	P/P	90 - 110
Chloride	101	101	P/P	90 - 110
Sulfate	99.5	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A123909
Included Lab Sample IDs: 2463135, 2463140, 2463141, 2463142

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

Reference Method: EPA 8270E
Run ID: A123912
Included Lab Sample IDs: 2463172

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	92.2		P	80 - 120
Alpha-BHC	93.3		P	80 - 120
Alpha-Chlordane	101		P	80 - 120
Beta-BHC	101		P	80 - 120
Beta-Cyfluthrin	106		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A123912
Included Lab Sample IDs: 2463172

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bifenthrin	107		P	80 - 120
Chlorothalonil	98.7		P	80 - 120
Cis-Nonachlor	113		P	80 - 120
Cypermethrin	105		P	80 - 120
Dacthal	92.1		P	80 - 120
DDD-p,p'	113		P	80 - 120
DDE-p,p'	113		P	80 - 120
DDT-p,p'	99.6		P	80 - 120
Delta-BHC	99.5		P	80 - 120
Deltamethrin	95.8		P	80 - 120
Dichlobenil	84.5		P	80 - 120
Dicofol	103		P	80 - 120
Dieldrin	103		P	80 - 120
Endosulfan I	95.0		P	80 - 120
Endosulfan II	97.0		P	80 - 120
Endosulfan Sulfate	106		P	80 - 120
Endrin	105		P	80 - 120
Endrin Aldehyde	93.6		P	80 - 120
Endrin Ketone	106		P	80 - 120
Esfenvalerate	104		P	80 - 120
Ethalfuralin	96.0		P	80 - 120
Fenpropathrin	117		P	80 - 120
Gamma-BHC	88.3		P	80 - 120
Gamma-Chlordane	94.1		P	80 - 120
Heptachlor	88.4		P	80 - 120
Heptachlor Epoxide	89.6		P	80 - 120
Hexachlorobenzene	96.4		P	80 - 120
Kepone	107		P	80 - 120
Lambda-Cyhalothrin	104		P	80 - 120
Methoprene	95.6		P	80 - 120
Methoxychlor	117		P	80 - 120
MGK-264	100		P	80 - 120
Mirex	95.2		P	80 - 120
Oxychlordane	86.0		P	80 - 120
Permethrin	104		P	80 - 120
Phenothrin	95.2		P	80 - 120
Piperonyl Butoxide	115		P	80 - 120
Prallethrin	102		P	80 - 120
Tau-Fluvalinate	106		P	80 - 120
Tetramethrin	94.2		P	80 - 120
Trans-Nonachlor	93.5		P	80 - 120
Triclosan Methyl	87.7		P	80 - 120
Trifluralin	108		P	80 - 120

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A123913
Included Lab Sample IDs: 2463140, 2463141, 2463142

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	101	99.0	P/P	90 - 110
Total-P	99.8	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A123929

Included Lab Sample IDs: 2463135, 2463140, 2463141, 2463142

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	107	104	P/P	90 - 110

Reference Method: SM 5310 B-2014

Run ID: A123942

Included Lab Sample IDs: 2463135, 2463140, 2463141, 2463142

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	118	96.3	P/P	70 - 130
Organic Carbon	97.0	118	P/P	85 - 115

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A123952

Included Lab Sample IDs: 2463135, 2463140, 2463141, 2463142

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.2	98.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A123974

Included Lab Sample IDs: 2463135

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	102	100	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A123977

Included Lab Sample IDs: 2463133, 2463137, 2463138, 2463139

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.0	95.4	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A123977

Included Lab Sample IDs: 2463133, 2463137, 2463138, 2463139

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A124027

Included Lab Sample IDs: 2463138, 2463139

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

* 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)	100				1.05	
EPA 180.1 Rev. 2.0	Turbidity	104				0.0	
EPA 300.0 Rev. 2.1	Chloride	103	102	104		0.715	
	Sulfate	101	102	102			
	Sulfate	101	99.4	99.2		0.287	
	Ammonia-N	96.6	91.6	97.0			4.55
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103	95.3	108			7.26
EPA 353.2 Rev. 2.0	NO2NO3-N	102	98.8	98.8			0.0
EPA 365.1 Rev. 2.0	Total-P	107	110	108			2.34
	Total-P	108	106	106			0.0219
	Total-P	104	101	107			5.16
EPA 8270E	Aldrin	64.4	72.7	56.8			24.6
	Alpha-BHC	81.4	65.0	70.8			8.52
	Alpha-Chlordane	103	118	76.1			21.6
	Beta-BHC	96.5	116	107			8.01
	Beta-Cyfluthrin	108	106	90.1			16.3
	Bifenthrin	37.3	48.8	46.7			4.35
	Chlorothalonil	102	43.1	56.6			27.2
	Cis-Nonachlor	57.0	69.5	72.4			4.12
	Cypermethrin	58.2	74.4	58.5			24.0
	Dacthal	95.5	73.3	95.8			26.6
	DDD-p,p'	57.7	65.0	58.2			11.1
	DDE-p,p'	57.7	83.2	71.0			15.8
	DDT-p,p'	71.4	62.7	73.9			16.3
	Delta-BHC	71.7	67.6	67.3			0.472
	Deltamethrin	125	80.9	132			47.7
	Dichlobenil	90.0	52.1	54.0			3.19
	Dicofol	72.7	63.8	73.3			13.8
	Dieldrin	85.1	126	109			12.5
	Endosulfan I	88.0	109	83.3			27.2
	Endosulfan II	86.2	99.8	96.8			3.05
	Endosulfan Sulfate	127	119	134			12.1
	Endrin	94.5	81.4	97.1			17.6
	Endrin Aldehyde	93.1	82.9	73.5			12.0
	Endrin Ketone	101	89.7	103			13.6
	Esfenvalerate	103	96.4	110			13.6
	Ethalfuralin	91.6	82.3	86.4			4.88
	Fenpropathrin	41.9	54.0	47.6			12.6
	Gamma-BHC	80.4	88.2	82.6			6.49
	Gamma-Chlordane	62.5	106	94.0			9.46
	Heptachlor	47.6	49.7	52.0			4.49
	Heptachlor Epoxide	101	125	77.8			39.7
	Hexachlorobenzene	48.8	45.8	47.4			3.36
	Kepone	129	101	94.6			6.14
	Lambda-Cyhalothrin	67.9	48.7	61.2			22.6
	Methoprene	38.5	61.3	50.5			19.3
	Methoxychlor	64.7	72.0	68.7			4.80
	MGK-264	129	137	93.9			37.3
	Mirex	36.8	45.7	44.7			2.14
	Oxychlordane	83.4	114	82.0			32.3
	PCB-1016	73.3	71.6	63.3			12.3
	PCB-1260	77.4	77.6	66.6			15.3
	Permethrin	97.2	83.3	92.8			10.8
	Phenothrin	71.1	88.0	74.3			16.9

Quality Assurance Report

Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	SMP
EPA 8270E	Piperonyl Butoxide	105	114	108		5.93
	Prallethrin	110	108	79.3		30.2
	Tau-Fluvalinate	51.9	47.9	74.0		42.7
	Tetramethrin	103	82.2	80.8		1.67
	Trans-Nonachlor	78.6	107	111		2.80
	Triclosan Methyl	94.2	135	91.2		38.6
	Trifluralin	92.1	75.0	86.7		14.5
EPA 8276	Chlordane	101	94.0	85.2		9.84
	Toxaphene	110	94.5	87.6		7.56
SM 2320 B-2011	Total Alkalinity	97.6				1.10
SM 2540 C-2015	TDS	96.4				2.76
SM 2540 D-2015	TSS	92.8				
SM 4500-F- C-2011	Fluoride	101	101	102		0.527
SM 5310 B-2014	Organic Carbon	99.1	98.4	99.8		1.39
	Organic Carbon	98.9	98.4	102		2.13

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2463133, 2463137, 2463138, 2463139
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2463133, 2463137, 2463138, 2463139
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2463133, 2463137, 2463138, 2463139
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2463133, 2463137, 2463138, 2463139
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2463135, 2463140, 2463141, 2463142
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2463135, 2463140, 2463141, 2463142
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2463135, 2463140, 2463141, 2463142
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2463135, 2463140, 2463141, 2463142
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2463172
EPA 8270E	PCBs in water matrices by GC/MS/MS	2463172
EPA 8276	Chlordane and Toxaphene in water matrices by GC/MS with Negative Chemical Ionization	2463172
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2463133, 2463137, 2463138, 2463139
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2463133, 2463137, 2463138, 2463139
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2463133, 2463137, 2463138, 2463139
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2463133, 2463137, 2463138, 2463139
SM 5310 B-2014	Nonpurgeable Organic Carbon in aqueous matrices	2463135, 2463140, 2463141, 2463142

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	01/25/2024			01/25/2024 13:44	Chandler E Cox	2463133
	01/25/2024			01/25/2024 13:45	Chandler E Cox	2463137
	01/25/2024			01/25/2024 13:46	Chandler E Cox	2463138
	01/25/2024			01/25/2024 13:47	Chandler E Cox	2463139
EPA 180.1 Rev. 2.0	01/25/2024			01/25/2024 13:06	Anna M. Plaviak	2463133
	01/25/2024			01/25/2024 13:07	Anna M. Plaviak	2463137
	01/25/2024			01/25/2024 13:08	Anna M. Plaviak	2463138, 2463139
EPA 300.0 Rev. 2.1	01/25/2024			01/30/2024 12:40	James L Waggeberby	2463137
	01/25/2024			01/30/2024 16:10	James L Waggeberby	2463133
	01/25/2024			01/30/2024 16:25	James L Waggeberby	2463138
	01/25/2024			01/30/2024 16:40	James L Waggeberby	2463139
	01/25/2024			02/01/2024 11:09	James L Waggeberby	2463133
	01/25/2024			02/01/2024 11:24	James L Waggeberby	2463137
EPA 350.1 Rev. 2.0	01/25/2024			02/07/2024 14:00	James L Waggeberby	2463138
	01/25/2024			02/07/2024 14:15	James L Waggeberby	2463139
	01/25/2024			02/01/2024 13:48	Khloe J Berg	2463135
	01/25/2024			02/01/2024 13:49	Khloe J Berg	2463140
	01/25/2024			02/01/2024 13:51	Khloe J Berg	2463141
	01/25/2024			02/01/2024 13:52	Khloe J Berg	2463142
EPA 351.2 Rev. 2.0	01/25/2024	01/30/2024 13:09	Simonne.V. Calhoun	01/31/2024 14:52	Samantha L Bates	2463135
	01/25/2024	01/30/2024 13:09	Simonne.V. Calhoun	01/31/2024 14:54	Samantha L Bates	2463140
	01/25/2024	01/30/2024 13:09	Simonne.V. Calhoun	01/31/2024 14:56	Samantha L Bates	2463141
	01/25/2024	01/30/2024 13:09	Simonne.V. Calhoun	01/31/2024 14:57	Samantha L Bates	2463142
EPA 353.2 Rev. 2.0	01/25/2024			01/30/2024 14:28	Fadila Guebre	2463135
	01/25/2024			01/30/2024 14:29	Fadila Guebre	2463140
	01/25/2024			01/30/2024 14:30	Fadila Guebre	2463141
	01/25/2024			01/30/2024 14:32	Fadila Guebre	2463142
EPA 365.1 Rev. 2.0	01/25/2024	01/30/2024 14:24	Adam P Silver	01/31/2024 10:33	Elise M. Gillis	2463140
	01/25/2024	01/30/2024 14:24	Adam P Silver	01/31/2024 10:40	Elise M. Gillis	2463141
	01/25/2024	01/30/2024 14:24	Adam P Silver	01/31/2024 10:41	Elise M. Gillis	2463142
	01/25/2024	02/01/2024 15:22	Adam P Silver	02/02/2024 11:37	Simonne.V. Calhoun	2463135
EPA 8270E	01/25/2024	01/26/2024 08:00	Fe-Val Siddell	01/30/2024 02:56	Lipi Saha	2463172
	01/25/2024	01/26/2024 08:00	Fe-Val Siddell	01/30/2024 21:19	Julie Wi	2463172
EPA 8276	01/25/2024	01/26/2024 08:00	Fe-Val Siddell	01/30/2024 19:59	Arthur Maknenko	2463172
SM 2320 B-2011	01/25/2024			02/01/2024 03:36	Dale L. Simmons	2463133
	01/25/2024			02/01/2024 03:48	Dale L. Simmons	2463137
	01/25/2024			02/01/2024 04:00	Dale L. Simmons	2463138
	01/25/2024			02/01/2024 04:13	Dale L. Simmons	2463139
SM 2540 C-2015	01/25/2024			01/30/2024 15:39	Yijie Li	2463133, 2463137, 2463138, 2463139
SM 2540 D-2015	01/25/2024			01/30/2024 15:39	Yijie Li	2463133, 2463137, 2463138, 2463139

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 4500-F- C-2011	01/25/2024			02/01/2024 03:36	Dale L. Simmons	2463133
	01/25/2024			02/01/2024 03:48	Dale L. Simmons	2463137
	01/25/2024			02/01/2024 04:00	Dale L. Simmons	2463138
	01/25/2024			02/01/2024 04:13	Dale L. Simmons	2463139
SM 5310 B-2014	01/25/2024			02/01/2024 04:07	Khloe J Berg	2463135
	01/25/2024			02/01/2024 04:23	Khloe J Berg	2463140
	01/25/2024			02/01/2024 04:38	Khloe J Berg	2463141
	01/25/2024			02/01/2024 05:59	Khloe J Berg	2463142