

Chemical Analysis Report

NW-DIST-2023-09-14-02

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

Event Description: **11-Mile Creek Recovery Run**
Request ID: **RQ-2023-09-11-43**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
160 W Government Street
Suite 208
Pensacola, FL 32502-5794
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Certified by: Colin Wright, Program Administrator

Date Certified: 05-OCT-2023 15:26

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light gray rectangular background.

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: BAYOU CHICO DRAIN WEST ARM

Collection Date/Time: 09/13/2023 12:35

Field ID: G4NW0022

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2437177	EPA 8270E	Aldrin	0.69	U	ng/L	P435028	
		Alpha-BHC	0.11	U	ng/L	P435028	
		Alpha-Chlordane	0.83	I	ng/L	P435028	
		PCB-1016	2.1	U	ng/L	P435028	
		Beta-BHC	0.11	U	ng/L	P435028	
		PCB-1221	2.1	U	ng/L	P435028	
		Beta-Cyfluthrin	1.3	U	ng/L	P435028	
		PCB-1232	2.1	U	ng/L	P435028	
		Bifenthrin	0.53	U	ng/L	P435028	
		PCB-1242	2.1	U	ng/L	P435028	
		PCB-1248	2.1	U	ng/L	P435028	
		Chlorothalonil	3.8	U	ng/L	P435028	
		PCB-1254	2.1	U	ng/L	P435028	
		Cis-Nonachlor	0.21	U	ng/L	P435028	
		PCB-1260	2.1	U	ng/L	P435028	
		Cypermethrin	1.6	U	ng/L	P435028	
		Dacthal	0.16	U	ng/L	P435028	
		DDD-p,p'	0.26	U	ng/L	P435028	
		DDE-p,p'	0.21	U	ng/L	P435028	
		DDT-p,p'	0.85	U	ng/L	P435028	
		Delta-BHC	0.42	U	ng/L	P435028	
		Deltamethrin	1.3	U	ng/L	P435028	
		Dichlobenil	0.26	U	ng/L	P435028	
		Dicofol	1.3	U	ng/L	P435028	
		Dieldrin	9.0		ng/L	P435028	
		Endosulfan I	0.42	U	ng/L	P435028	
		Endosulfan II	0.95	U	ng/L	P435028	
		Endosulfan Sulfate	0.32	U	ng/L	P435028	
		Endrin	0.95	U	ng/L	P435028	
		Endrin Aldehyde	0.79	UJ	ng/L	P435028	CCV, MS
		Endrin Ketone	0.42	U	ng/L	P435028	
		Esfenvalerate	0.79	U	ng/L	P435028	
		Ethalfuralin	0.16	U	ng/L	P435028	
		Fenpropathrin	0.26	U	ng/L	P435028	
		Gamma-BHC	0.13	U	ng/L	P435028	
		Gamma-Chlordane	0.31	I	ng/L	P435028	
		Heptachlor	0.21	U	ng/L	P435028	
		Heptachlor Epoxide	5.0		ng/L	P435028	
		Hexachlorobenzene**	1.1	U	ng/L	P435028	
		Kepone	14	UJ	ng/L	P435028	LCS, MS
		Lambda-Cyhalothrin	0.79	U	ng/L	P435028	
		Methoprene	0.79	U	ng/L	P435028	
		Methoxychlor	0.32	U	ng/L	P435028	
		MGK-264	0.21	U	ng/L	P435028	

Field ID: G4NW0022

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2437177	EPA 8270E	Mirex	0.37	U	ng/L	P435028	CCV
		Oxychlordane	0.32	U	ng/L	P435028	
		Permethrin	1.7	U	ng/L	P435028	
		Phenothrin	0.95	UJ	ng/L	P435028	
		Piperonyl Butoxide	0.25	I	ng/L	P435028	
		Prallethrin	2.1	U	ng/L	P435028	
		Tau-Fluvalinate	0.26	U	ng/L	P435028	
		Tetramethrin	0.79	U	ng/L	P435028	
		Trans-Nonachlor	0.21	U	ng/L	P435028	
		Triclosan Methyl	0.16	U	ng/L	P435028	
		Trifluralin	0.21	U	ng/L	P435028	
	EPA 8276	Chlordane	6.0	I	ng/L	P435028	
		Toxaphene	16	U	ng/L	P435028	

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

Sample Location: BAYOU CHICO AT NAVY BVLD BRIDGE

Collection Date/Time: 09/13/2023 12:50

Field ID: G4NW0021

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2437178	EPA 8270E	Aldrin	0.72	U	ng/L	P435028	
		Alpha-BHC	0.11	U	ng/L	P435028	
		Alpha-Chlordane	0.47	I	ng/L	P435028	
		PCB-1016	2.2	U	ng/L	P435028	
		Beta-BHC	0.11	U	ng/L	P435028	
		PCB-1221	2.2	U	ng/L	P435028	
		Beta-Cyfluthrin	1.4	U	ng/L	P435028	
		PCB-1232	2.2	U	ng/L	P435028	
		Bifenthrin	0.55	U	ng/L	P435028	
		PCB-1242	2.2	U	ng/L	P435028	
		PCB-1248	2.2	U	ng/L	P435028	
		Chlorothalonil	4.0	U	ng/L	P435028	
		PCB-1254	2.2	U	ng/L	P435028	
		Cis-Nonachlor	0.22	U	ng/L	P435028	
		PCB-1260	2.2	U	ng/L	P435028	
		Cypermethrin	1.7	U	ng/L	P435028	
		Dacthal	0.17	U	ng/L	P435028	
		DDD-p,p'	0.28	U	ng/L	P435028	
		DDE-p,p'	0.22	U	ng/L	P435028	
		DDT-p,p'	0.88	U	ng/L	P435028	
		Delta-BHC	0.44	U	ng/L	P435028	
		Deltamethrin	1.4	U	ng/L	P435028	
		Dichlobenil	0.28	U	ng/L	P435028	
		Dicofol	1.4	U	ng/L	P435028	
		Dieldrin	5.6		ng/L	P435028	
		Endosulfan I	0.44	U	ng/L	P435028	
		Endosulfan II	0.99	U	ng/L	P435028	
		Endosulfan Sulfate	0.33	U	ng/L	P435028	
		Endrin	0.99	U	ng/L	P435028	
		Endrin Aldehyde	0.83	UJ	ng/L	P435028	CCV, MS
		Endrin Ketone	0.44	U	ng/L	P435028	
		Esfenvalerate	0.83	U	ng/L	P435028	
		Ethalfuralin	0.17	U	ng/L	P435028	
		Fenpropathrin	0.28	U	ng/L	P435028	
		Gamma-BHC	0.14	U	ng/L	P435028	
		Gamma-Chlordane	0.22	U	ng/L	P435028	
		Heptachlor	0.22	U	ng/L	P435028	
		Heptachlor Epoxide	3.4		ng/L	P435028	
		Hexachlorobenzene**	1.1	U	ng/L	P435028	
		Kepone	15	UJ	ng/L	P435028	LCS, MS
		Lambda-Cyhalothrin	0.83	U	ng/L	P435028	
		Methoprene	0.83	U	ng/L	P435028	
		Methoxychlor	0.33	U	ng/L	P435028	
		MGK-264	0.22	U	ng/L	P435028	

Field ID: G4NW0021

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2437178	EPA 8270E	Mirex	0.39	U	ng/L	P435028	CCV
		Oxychlordane	0.33	U	ng/L	P435028	
		Permethrin	1.8	U	ng/L	P435028	
		Phenothrin	0.99	UJ	ng/L	P435028	
		Piperonyl Butoxide	0.31	I	ng/L	P435028	
		Prallethrin	2.2	U	ng/L	P435028	
		Tau-Fluvalinate	0.28	U	ng/L	P435028	
		Tetramethrin	0.83	U	ng/L	P435028	
		Trans-Nonachlor	0.22	U	ng/L	P435028	
		Triclosan Methyl	0.17	U	ng/L	P435028	
		Trifluralin	0.22	U	ng/L	P435028	
		Chlordane	3.7	I	ng/L	P435028	
		Toxaphene	17	U	ng/L	P435028	
	EPA 8276						

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

Sample Location: TEA LAKE (CENTER)

Collection Date/Time: 09/13/2023 11:15

Field ID: G5NW0035

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2437165	DEP SOP: NU-094-1	Color (true)	44		PCU	P435017	
	EPA 180.1 Rev. 2.0	Turbidity	3.5		NTU	P435019	
	EPA 300.0 Rev. 2.1	Chloride	5.2E+03		mg Cl/L	P435376	
		Sulfate	760		mg SO4/L	P435379	
	SM 2320 B-2011	Total Alkalinity	45		mg CaCO3/L	P435435	
	SM 2540 C-2015	TDS	8.78E+03		mg/L	P435610	
	SM 2540 D-2015	TSS	3	I	mg/L	P435613	RPD
	SM 4500-F- C-2011	Fluoride	0.33		mg F/L	P435590	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P435138	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.55		mg N/L	P435650	
2437166	EPA 353.2 Rev. 2.0	NO2NO3-N	0.009	I	mg N/L	P435633	
	EPA 365.1 Rev. 2.0	Total-P	0.023		mg P/L	P435229	
	SM 5310 B-2011	Organic Carbon	8.3		mg C/L	P435499	

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P435017

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P435019

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P435376

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P435379

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P435138

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P435650

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P435633

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P435229

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

Reference Method: EPA 8270E
Batch ID: P435028

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P435028

Component	Result	Code	Units
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
Chlorothalonil	3.6	U	ng/L
Chlorothalonil	3.6	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'	0.80	U	ng/L
DDT-p,p'	0.80	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
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	0.90	U	ng/L
Endosulfan II	0.90	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.90	U	ng/L
Endrin	0.90	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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P435028

Component	Result	Code	Units
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	14	U	ng/L
Kepone	14	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	0.35	U	ng/L
Mirex	0.35	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
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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P435028

Component	Result	Code	Units
Trifluralin	0.20	U	ng/L
Trifluralin	0.20	U	ng/L

Reference Method: EPA 8276
Batch ID: P435028

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

Reference Method: SM 2320 B-2011
Batch ID: P435435

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

Reference Method: SM 2540 C-2015
Batch ID: P435610

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P435613

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P435590

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P435499

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: P435017

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

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P435019

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P435376

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	90.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P435379

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P435138

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P435650

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	106		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P435633

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P435229

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

Reference Method: EPA 8270E
Batch ID: P435028

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	52.2		P	30 - 96.0
Alpha-BHC	82.1		P	70 - 109
Alpha-Chlordane	106		P	45 - 107
Beta-BHC	70.0		P	64 - 138

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P435028

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Beta-Cyfluthrin	54.6		P	17 - 141
Bifenthrin	47.0		P	10 - 113
Chlorothalonil	125		P	26 - 180
Cis-Nonachlor	88.7		P	37 - 102
Cypermethrin	45.3		P	20 - 133
Dacthal	83.2		P	69 - 114
DDD-p,p'	58.8		P	42 - 105
DDE-p,p'	66.1		P	42 - 106
DDT-p,p'	66.7		P	42 - 107
Delta-BHC	70.4		P	67 - 144
Deltamethrin	56.1		P	15 - 149
Dichlobenil	80.5		P	46 - 117
Dicofol	87.3		P	34 - 114
Dieldrin	68.3		P	50 - 108
Endosulfan I	68.3		P	55 - 104
Endosulfan II	80.1		P	51 - 111
Endosulfan Sulfate	101		P	56 - 121
Endrin	65.2		P	10 - 106
Endrin Aldehyde	112		P	34 - 114
Endrin Ketone	77.7		P	63 - 177
Esfenvalerate	47.5		P	29 - 143
Ethalfuralin	67.0		P	46 - 96.0
Fenpropathrin	62.0		P	28 - 115
Gamma-BHC	91.4		P	65 - 121
Gamma-Chlordane	61.0		P	39 - 103
Heptachlor	86.6		P	39 - 94.0
Heptachlor Epoxide	77.4		P	54 - 104
Hexachlorobenzene	82.7		P	36 - 100
Kepone	277		F	10 - 225
Lambda-Cyhalothrin	44.0		P	10 - 135
Methoprene	44.0		P	10 - 109
Methoxychlor	65.2		P	52 - 112
MGK-264	88.5		P	44 - 117
Mirex	55.0		P	20 - 90.0
Oxychlordane	71.2		P	44 - 102
PCB-1016	71.3		P	45 - 107
PCB-1260	89.4		P	40 - 118
Permethrin	46.3		P	18 - 135
Phenothrin	39.3		P	10 - 102
Piperonyl Butoxide	71.6		P	28 - 156
Prallethrin	54.3		P	28 - 113
Tau-Fluvalinate	50.7		P	10 - 123
Tetramethrin	57.1		P	18 - 158
Trans-Nonachlor	72.7		P	39 - 104
Triclosan Methyl	67.4		P	54 - 108
Trifluralin	69.3		P	46 - 97.0

Reference Method: EPA 8276

Batch ID: P435028

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	77.7		P	52 - 117

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8276
Batch ID: P435028

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Toxaphene	86.2		P	44 - 125

Reference Method: SM 2320 B-2011
Batch ID: P435435

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	95.6		P	92 - 105

Reference Method: SM 2540 C-2015
Batch ID: P435610

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	98.1		P	90 - 110

Reference Method: SM 2540 D-2015
Batch ID: P435613

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	95.3		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P435590

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.7		P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P435499

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P435376

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2437034	Chloride	94.2		P	90 - 110
2437093	Chloride	94.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P435379

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2437034	Sulfate	98.4		P	90 - 110
2437093	Sulfate	95.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P435138

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2436560	Ammonia-N	99.0	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P435650

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2437405	Kjeldahl Nitrogen	97.7	98.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P435633

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2436502	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P435229

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2437166	Total-P	106	106	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P435028

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2437224	Aldrin	48.6	63.3	P/P	24 - 81.0
2437224	Alpha-BHC	82.2	80.5	P/P	65 - 110
2437224	Alpha-Chlordane	86.0	87.8	P/P	43 - 119
2437224	Beta-BHC	62.5	67.5	P/P	54 - 165
2437224	Beta-Cyfluthrin	59.5	65.6	P/P	27 - 165
2437224	Bifenthrin	41.4	51.8	P/P	17 - 117
2437224	Chlorothalonil	123	142	P/P	10 - 255
2437224	Cis-Nonachlor	70.3	81.9	P/P	34 - 98.0
2437224	Cypermethrin	45.5	50.3	P/P	25 - 143
2437224	Dacthal	87.1	101	P/P	55 - 139
2437224	DDD-p,p'	60.0	66.3	P/P	30 - 109
2437224	DDE-p,p'	49.5	56.1	P/P	35 - 106
2437224	DDT-p,p'	65.0	73.9	P/P	41 - 101
2437224	Delta-BHC	79.7	111	P/P	58 - 165

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P435028

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2437224	Deltamethrin	49.9	66.1	P/P	10 - 194
2437224	Dichlobenil	86.3	73.9	P/P	22 - 114
2437224	Dicofol	92.2	104	P/P	17 - 133
2437224	Dieldrin	63.5	64.5	P/P	45 - 129
2437224	Endosulfan I	57.9	69.4	P/P	49 - 104
2437224	Endosulfan II	80.1	81.9	P/P	37 - 117
2437224	Endosulfan Sulfate	82.2	115	P/P	38 - 128
2437224	Endrin	65.0	67.9	P/P	35 - 116
2437224	Endrin Aldehyde	73.9	129	P/F	19 - 108
2437224	Endrin Ketone	66.9	89.8	P/P	44 - 134
2437224	Esfenvalerate	34.7	57.4	P/P	27 - 176
2437224	Ethalfuralin	68.5	75.5	P/P	49 - 100
2437224	Fenpropathrin	62.7	71.4	P/P	34 - 117
2437224	Gamma-BHC	91.5	81.7	P/P	59 - 129
2437224	Gamma-Chlordane	54.5	73.9	P/P	33 - 107
2437224	Heptachlor	73.9	74.6	P/P	37 - 94.0
2437224	Heptachlor Epoxide	84.3	111	P/P	38 - 118
2437224	Hexachlorobenzene	74.8	89.9	P/P	35 - 97.0
2437224	Kepone	303	299	F/F	10 - 221
2437224	Lambda-Cyhalothrin	39.6	47.6	P/P	23 - 190
2437224	Methoprene	36.0	49.8	P/P	21 - 109
2437224	Methoxychlor	68.4	81.6	P/P	46 - 118
2437224	MGK-264	90.0	96.4	P/P	39 - 122
2437224	Mirex	63.9	78.7	P/P	25 - 90.0
2437224	Oxychlordane	66.5	89.1	P/P	42 - 100
2437224	Permethrin	41.8	50.2	P/P	33 - 181
2437224	Phenothrin	53.9	62.8	P/P	12 - 125
2437224	Piperonyl Butoxide	55.5	63.2	P/P	10 - 178
2437224	Prallethrin	52.1	55.4	P/P	24 - 122
2437224	Tau-Fluvalinate	51.3	74.2	P/P	13 - 151
2437224	Tetramethrin	59.3	63.5	P/P	16 - 172
2437224	Trans-Nonachlor	59.0	70.7	P/P	39 - 100
2437224	Triclosan Methyl	66.4	77.0	P/P	43 - 110
2437224	Trifluralin	65.5	76.1	P/P	45 - 94.0
2437232	PCB-1016	79.1	79.0	P/P	45 - 107
2437232	PCB-1260	84.7	83.4	P/P	40 - 112

Reference Method: EPA 8276

Batch ID: P435028

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2437232	Chlordane	83.4	81.0	P/P	43 - 123
2437232	Toxaphene	125	109	P/P	27 - 156

Reference Method: SM 4500-F- C-2011

Batch ID: P435590

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2438194	Fluoride	97.2	98.0	P/P	94 - 106

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P435499

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2437166	Organic Carbon	89.6	90.1	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P435017

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2437118	Color (true)	0.990	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P435019

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2437054	Turbidity	5.19	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P435376

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2437034	Chloride	0.363	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P435379

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2437034	Sulfate	0.480	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P435138

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2436560	Ammonia-N	1.50	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P435650

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2437405	Kjeldahl Nitrogen	0.294	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P435633

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2436502	NO2NO3-N	0.489	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P435229

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2437166	Total-P	0.0707	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P435028

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2437224	Aldrin	26.2	Spike	P	0 - 41
2437224	Alpha-BHC	2.11	Spike	P	0 - 25
2437224	Alpha-Chlordane	2.05	Spike	P	0 - 32
2437224	Beta-BHC	7.70	Spike	P	0 - 33
2437224	Beta-Cyfluthrin	9.72	Spike	P	0 - 43
2437224	Bifenthrin	22.2	Spike	P	0 - 52
2437224	Chlorothalonil	14.4	Spike	P	0 - 82
2437224	Cis-Nonachlor	15.2	Spike	P	0 - 33
2437224	Cypermethrin	9.92	Spike	P	0 - 51
2437224	Dacthal	14.7	Spike	P	0 - 27
2437224	DDD-p,p'	9.99	Spike	P	0 - 39
2437224	DDE-p,p'	12.5	Spike	P	0 - 31
2437224	DDT-p,p'	12.8	Spike	P	0 - 29
2437224	Delta-BHC	32.4	Spike	P	0 - 35
2437224	Deltamethrin	28.0	Spike	P	0 - 100
2437224	Dichlobenil	15.5	Spike	P	0 - 40
2437224	Dicofol	12.5	Spike	P	0 - 37
2437224	Dieldrin	1.51	Spike	P	0 - 27
2437224	Endosulfan I	18.1	Spike	P	0 - 23
2437224	Endosulfan II	2.21	Spike	P	0 - 34
2437224	Endosulfan Sulfate	33.7	Spike	P	0 - 36
2437224	Endrin	4.38	Spike	P	0 - 45
2437224	Endrin Aldehyde	54.6	Spike	P	0 - 76
2437224	Endrin Ketone	29.2	Spike	P	0 - 43
2437224	Esfenvalerate	49.3	Spike	P	0 - 51
2437224	Ethalfuralin	9.79	Spike	P	0 - 22
2437224	Fenpropathrin	12.9	Spike	P	0 - 49
2437224	Gamma-BHC	11.3	Spike	P	0 - 28
2437224	Gamma-Chlordane	30.3	Spike	P	0 - 40
2437224	Heptachlor	0.914	Spike	P	0 - 29
2437224	Heptachlor Epoxide	27.7	Spike	P	0 - 33
2437224	Hexachlorobenzene	18.4	Spike	P	0 - 36
2437224	Kepone	1.29	Spike	P	0 - 85
2437224	Lambda-Cyhalothrin	18.4	Spike	P	0 - 55
2437224	Methoprene	32.1	Spike	P	0 - 53
2437224	Methoxychlor	17.5	Spike	P	0 - 50
2437224	MGK-264	6.90	Spike	P	0 - 43
2437224	Mirex	20.8	Spike	P	0 - 40
2437224	Oxychlordane	29.1	Spike	P	0 - 31
2437224	Permethrin	18.4	Spike	P	0 - 50
2437224	Phenothrin	15.3	Spike	P	0 - 58
2437224	Piperonyl Butoxide	13.0	Spike	P	0 - 100
2437224	Prallethrin	6.20	Spike	P	0 - 39
2437224	Tau-Fluvalinate	36.5	Spike	P	0 - 54
2437224	Tetramethrin	6.85	Spike	P	0 - 51
2437224	Trans-Nonachlor	18.0	Spike	P	0 - 39
2437224	Triclosan Methyl	14.8	Spike	P	0 - 31
2437224	Trifluralin	14.9	Spike	P	0 - 22
2437232	PCB-1016	0.0793	Spike	P	0 - 25
2437232	PCB-1260	1.47	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8276

Batch ID: P435028

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2437232	Chlordane	2.88	Spike	P	0 - 28
2437232	Toxaphene	12.9	Spike	P	0 - 27

Reference Method: SM 2320 B-2011

Batch ID: P435435

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2437957	Total Alkalinity	0.921	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015

Batch ID: P435610

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2437620	TDS	6.67	Sample	P	0 - 10

Reference Method: SM 2540 D-2015

Batch ID: P435613

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2437188	TSS	10.2	Sample	F	0 - 10

Reference Method: SM 4500-F- C-2011

Batch ID: P435590

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2438194	Fluoride	0.480	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2011

Batch ID: P435499

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2437166	Organic Carbon	0.452	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2437177

Field Sample ID: G4NW0022

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	82.2	P	37 - 129
EPA 8270E	Decachlorobiphenyl	61.4	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	53.9	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	60.9	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	72.0	P	28 - 102
EPA 8276	PCNB	90.3	P	49 - 115

Lab Sample ID: 2437178

Field Sample ID: G4NW0021

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	82.8	P	37 - 129
EPA 8270E	Decachlorobiphenyl	78.4	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	58.8	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	59.9	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	72.6	P	28 - 102
EPA 8276	PCNB	100	P	49 - 115

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A121541

Included Lab Sample IDs: 2437165

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.2	98.6	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A121543

Included Lab Sample IDs: 2437165

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	98.5	98.5	P/P	95 - 105

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A121599

Included Lab Sample IDs: 2437166

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.0	98.5	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A121647

Included Lab Sample IDs: 2437177, 2437178

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	92.4		P	80 - 120
PCB-1260	99.6		P	80 - 120

Reference Method: EPA 8270E

Run ID: A121668

Included Lab Sample IDs: 2437177, 2437178

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	112		P	80 - 120
Alpha-BHC	96.6		P	80 - 120
Alpha-Chlordane	92.2		P	80 - 120
Beta-BHC	106		P	80 - 120
Beta-Cyfluthrin	82.5		P	80 - 120
Bifenthrin	89.7		P	80 - 120
Chlorothalonil	99.0		P	80 - 120
Cis-Nonachlor	112		P	80 - 120
Cypermethrin	83.5		P	80 - 120
Dacthal	97.6		P	80 - 120
DDD-p,p'	93.1		P	80 - 120
DDE-p,p'	101		P	80 - 120
DDT-p,p'	95.4		P	80 - 120
Delta-BHC	92.5		P	80 - 120
Deltamethrin	83.8		P	80 - 120
Dichlobenil	95.0		P	80 - 120
Dicofol	99.9		P	80 - 120
Dieldrin	95.6		P	80 - 120
Endosulfan I	108		P	80 - 120
Endosulfan II	93.4		P	80 - 120
Endosulfan Sulfate	106		P	80 - 120
Endrin	98.4		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A121668

Included Lab Sample IDs: 2437177, 2437178

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Endrin Aldehyde	123*		F	80 - 120
Endrin Ketone	110		P	80 - 120
Esfenvalerate	92.6		P	80 - 120
Ethalfuralin	94.0		P	80 - 120
Fenpropathrin	95.3		P	80 - 120
Gamma-BHC	94.4		P	80 - 120
Gamma-Chlordane	99.3		P	80 - 120
Heptachlor	101		P	80 - 120
Heptachlor Epoxide	96.8		P	80 - 120
Hexachlorobenzene	96.9		P	80 - 120
Kepone	112		P	80 - 120
Lambda-Cyhalothrin	82.9		P	80 - 120
Methoprene	91.7		P	80 - 120
Methoxychlor	87.9		P	80 - 120
MGK-264	89.3		P	80 - 120
Mirex	90.8		P	80 - 120
Oxychlordane	91.4		P	80 - 120
Permethrin	83.1		P	80 - 120
Phenothrin	77.1*		F	80 - 120
Piperonyl Butoxide	82.7		P	80 - 120
Prallethrin	90.2		P	80 - 120
Tau-Fluvalinate	85.8		P	80 - 120
Tetramethrin	80.9		P	80 - 120
Trans-Nonachlor	91.1		P	80 - 120
Triclosan Methyl	93.0		P	80 - 120
Trifluralin	97.7		P	80 - 120

Reference Method: EPA 8276

Run ID: A121670

Included Lab Sample IDs: 2437177, 2437178

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	98.6		P	80 - 120
Toxaphene	100		P	80 - 120

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A121683

Included Lab Sample IDs: 2437166

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.5	93.8	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A121711

Included Lab Sample IDs: 2437165

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.8	99.2	P/P	90 - 110
Sulfate	99.8	99.6	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-2011

Run ID: A121739

Included Lab Sample IDs: 2437165

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	96.6	93.8	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A121761

Included Lab Sample IDs: 2437166

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	99.6	97.4	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A121790

Included Lab Sample IDs: 2437165

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A121809

Included Lab Sample IDs: 2437166

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A121848

Included Lab Sample IDs: 2437166

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	103	104	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)	101				0.990	
EPA 180.1 Rev. 2.0	Turbidity	102				5.19	
EPA 300.0 Rev. 2.1	Chloride	90.8	94.2	94.2		0.363	
	Sulfate	101	98.4	95.9		0.480	
EPA 350.1 Rev. 2.0	Ammonia-N	98.6	99.0	101			1.50
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	106	97.7	98.0			0.294
EPA 353.2 Rev. 2.0	NO2NO3-N	99.5	102	102			0.489
EPA 365.1 Rev. 2.0	Total-P	103	106	106			0.0707
EPA 8270E	Aldrin	52.2	48.6	63.3			26.2
	Alpha-BHC	82.1	82.2	80.5			2.11
	Alpha-Chlordane	106	86.0	87.8			2.05
	Beta-BHC	70.0	62.5	67.5			7.70
	Beta-Cyfluthrin	54.6	59.5	65.6			9.72
	Bifenthrin	47.0	41.4	51.8			22.2
	Chlorothalonil	125	123	142			14.4
	Cis-Nonachlor	88.7	70.3	81.9			15.2
	Cypermethrin	45.3	45.5	50.3			9.92
	Dacthal	83.2	87.1	101			14.7
	DDD-p,p'	58.8	60.0	66.3			9.99
	DDE-p,p'	66.1	49.5	56.1			12.5
	DDT-p,p'	66.7	65.0	73.9			12.8
	Delta-BHC	70.4	79.7	111			32.4
	Deltamethrin	56.1	49.9	66.1			28.0
	Dichlobenil	80.5	86.3	73.9			15.5
	Dicofol	87.3	92.2	104			12.5
	Dieldrin	68.3	63.5	64.5			1.51
	Endosulfan I	68.3	57.9	69.4			18.1
	Endosulfan II	80.1	80.1	81.9			2.21
	Endosulfan Sulfate	101	82.2	115			33.7
	Endrin	65.2	65.0	67.9			4.38
	Endrin Aldehyde	112	73.9	129			54.6
	Endrin Ketone	77.7	66.9	89.8			29.2
	Esfenvalerate	47.5	34.7	57.4			49.3
	Ethalfuralin	67.0	68.5	75.5			9.79
	Fenpropathrin	62.0	62.7	71.4			12.9
	Gamma-BHC	91.4	91.5	81.7			11.3
	Gamma-Chlordane	61.0	54.5	73.9			30.3
	Heptachlor	86.6	73.9	74.6			0.914
	Heptachlor Epoxide	77.4	84.3	111			27.7
	Hexachlorobenzene	82.7	74.8	89.9			18.4
	Kepone	277	303	299			1.29
	Lambda-Cyhalothrin	44.0	39.6	47.6			18.4
	Methoprene	44.0	36.0	49.8			32.1
	Methoxychlor	65.2	68.4	81.6			17.5
	MGK-264	88.5	90.0	96.4			6.90
	Mirex	55.0	63.9	78.7			20.8
	Oxychlordane	71.2	66.5	89.1			29.1
	PCB-1016	71.3	79.1	79.0			0.0793
	PCB-1260	89.4	84.7	83.4			1.47
	Permethrin	46.3	41.8	50.2			18.4
	Phenothrin	39.3	53.9	62.8			15.3
	Piperonyl Butoxide	71.6	55.5	63.2			13.0
	Prallethrin	54.3	52.1	55.4			6.20
	Tau-Fluvalinate	50.7	51.3	74.2			36.5

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8270E	Tetramethrin	57.1	59.3	63.5		6.85
	Trans-Nonachlor	72.7	59.0	70.7		18.0
	Triclosan Methyl	67.4	66.4	77.0		14.8
	Trifluralin	69.3	65.5	76.1		14.9
EPA 8276	Chlordane	77.7	83.4	81.0		2.88
	Toxaphene	86.2	125	109		12.9
SM 2320 B-2011	Total Alkalinity	95.6			0.921	
SM 2540 C-2015	TDS	98.1			6.67	
SM 2540 D-2015	TSS	95.3			10.2	
SM 4500-F- C-2011	Fluoride	99.7	97.2	98.0		0.480
SM 5310 B-2011	Organic Carbon	98.2	89.6	90.1		0.452

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2437165
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2437165
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2437165
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2437165
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2437166
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2437166
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2437166
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2437166
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2437177, 2437178
EPA 8270E	PCBs in water matrices by GC/MS/MS	2437177, 2437178
EPA 8276	Chlordane and Toxaphene in water matrices by GC/MS with Negative Chemical Ionization	2437177, 2437178
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2437165
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2437165
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2437165
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2437165
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2437166

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	09/14/2023			09/14/2023 14:11	Samantha L. Bates	2437165
EPA 180.1 Rev. 2.0	09/14/2023			09/14/2023 13:19	Alexis Price	2437165
EPA 300.0 Rev. 2.1	09/14/2023			09/21/2023 05:35	James L. Waggenerby	2437165
EPA 350.1 Rev. 2.0	09/14/2023			09/18/2023 11:53	Ping Hua	2437166
EPA 351.2 Rev. 2.0	09/14/2023	09/28/2023 13:28	Simonne.V. Calhoun	09/29/2023 11:31	Ping Hua	2437166
EPA 353.2 Rev. 2.0	09/14/2023			09/26/2023 12:11	Anna M. Plaviak	2437166
EPA 365.1 Rev. 2.0	09/14/2023	09/19/2023 16:30	Alexis Price	09/21/2023 11:52	Simonne.V. Calhoun	2437166
EPA 8270E	09/14/2023	09/18/2023 08:00	Fe-Val Siddell	09/19/2023 23:29	Lipi Saha	2437177
	09/14/2023	09/18/2023 08:00	Fe-Val Siddell	09/20/2023 00:00	Lipi Saha	2437178
	09/14/2023	09/18/2023 08:00	Fe-Val Siddell	09/20/2023 21:26	Vandana T. Nagar	2437177
	09/14/2023	09/18/2023 08:00	Fe-Val Siddell	09/20/2023 21:58	Vandana T. Nagar	2437178
EPA 8276	09/14/2023	09/18/2023 08:00	Fe-Val Siddell	09/20/2023 12:53	Arthur Maknenko	2437177
	09/14/2023	09/18/2023 08:00	Fe-Val Siddell	09/20/2023 13:49	Arthur Maknenko	2437178
SM 2320 B-2011	09/14/2023			09/22/2023 19:13	Dale L. Simmons	2437165
SM 2540 C-2015	09/14/2023			09/19/2023 15:12	Yijie Li	2437165
SM 2540 D-2015	09/14/2023			09/19/2023 15:12	Yijie Li	2437165
SM 4500-F- C-2011	09/14/2023			09/27/2023 08:35	Adam P. Silver	2437165
SM 5310 B-2011	09/14/2023			09/25/2023 23:21	Elise M. Gillis	2437166