

Chemical Analysis Report

NW-DIST-2023-07-26-02

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

Event Description: **Pace Run**
Request ID: **RQ-2023-07-24-19**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
160 W Government Street
Suite 208
Pensacola, FL 32502-5794
Attn: Myranda Butler

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Certified by: Thekkekalathil Chandrasekhar, Environmental Consultant

Date Certified: 09-AUG-2023 10:13



Case Narrative

Unless otherwise noted, all samples included in this report were received in accordance with protocols referenced in Chapter 62-160, Florida Administrative Code (F.A.C.). Results published in this report pertain only to the samples as submitted to, and received by the laboratory. All times in this report are adjusted to the applicable Eastern Time Zone (EST or EDT).

Results for the following analytical groups are included in this report: Metals, Nutrients and Pesticides.

Scientific notation may be used in reporting very large or small values. Values reported using scientific notation will take the form of the following example: 1.3E+03, which is equivalent to 1.3×10^3 or 1300.

Unless otherwise noted, analytical values for soil and sediment samples are reported on a dry weight basis, and analytical values for waste and tissue samples are reported on a wet weight basis.

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited by the Florida Department of Health Environmental Laboratory Certification Program or where accreditation for that field of testing is not applicable.

Any significant anomalies or deviations from established protocols are documented in Non-Conformance Reports, which, where appropriate, are included within this analytical report. Additional comments related to specific analytical tests may be included as remarks following the analytical results for each sample. Such comments and remarks are for informational purposes only and are not intended to convey judgement about the usability of the reported data.

A quality control report on the performance of the test method for the submitted samples is included. Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published quality control acceptance limits for each analytical test. Matrix quality control results (matrix spike recoveries and matrix sample precision) pertain only to the matrix sample tested and do not necessarily reflect test method performance for other samples.

Typical matrix quality control (QC) measurements may include matrix spike recovery, matrix spike duplicate recovery, matrix spike precision and matrix sample precision. Not all matrix QC results may be available or reportable; where they are not an explanation is provided. Typical reasons for unavailable QC results include, but are not limited to, a) insufficient matrix sample to perform some or all QC measurements; b) analyte concentration in the sample replicated was too low for a meaningful measurement of precision and c) analyte concentration in the matrix sample spiked was too high (relative to the amount of analyte spiked) for a meaningful measurement of recovery. Where matrix QC results are unavailable, other method performance metrics (e.g., LCS recovery, LCS precision, surrogate recovery) may be used to assess performance of the method. Comments explaining any missing QC measurements are not intended to convey any adverse conclusions about the quality of the reported data.

Precision is reported as relative percent difference unless otherwise noted.

Quality Control codes as defined below may be used in this report to indicate results that are associated with one or more quality control elements which did not fall within established test method criteria. Such results may be qualified as estimates using a J qualifier as required by 62-160 F.A.C. Explanations are included in the report for any results that were reported as estimates for other reasons.

QC Codes used in this report may include:

- LCS – Recovery for the batch Laboratory Control Sample (LCS) was outside existing control limits;
- MS – Recovery for the batch matrix spike (MS) was outside existing control limits;
- CCV – Recovery for a continuing calibration verification (CCV) standard was outside existing control limits;
- SUR – Recovery of a surrogate (SUR) for associated analytes was outside existing control limits;
- RPD – The precision, measured as relative percent difference (RPD), of batch replicate measurements was outside existing control limits;
- RSD – The precision, measured as relative standard deviation (RSD), of batch replicate measurements was outside existing control limits;
- SMP – Sample - used precision derived from replicate analyses of a sample;

The following data qualifiers are used, where applicable, in this report as specified in 62-160 F.A.C.

- A - Value reported is the mean of two or more determinations.
- B - Results based on colony counts outside the acceptable range.
- I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J - Estimated value and/or the analysis did not meet established quality control criteria.
- K - Actual value is known to be less than value given.
- L - Actual value is known to be greater than value given.
- N - Presumptive evidence of presence of material.
- O - Sampled, but analysis lost or not performed.
- Q - Sample held beyond normal holding time.
- T - Value reported is less than the criterion of detection.
- U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
- V - Analyte was detected in both sample and method blank.
- X - Too few individuals to calculate SCI value.
- Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
- Z - Colonies were too numerous to count (TNTC).

Quality control information from overflow laboratories may not be included in this report. Please refer to the associated report from the overflow laboratory for additional information.

Sample Location: BEAR CREEK 40M BLW LAKE DAM OUTFALL Collection Date/Time: 07/25/2023 10:45

Field ID: G4NW0001

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2426693	DEP SOP: NU-094-1	Color (true)	31	A	PCU	P433045	
	EPA 180.1 Rev. 2.0	Turbidity	2.6		NTU	P433057	
	EPA 300.0 Rev. 2.1	Chloride	2.8		mg Cl/L	P433206	
		Sulfate	0.47	I	mg SO4/L	P433208	
	SM 2320 B-2011	Total Alkalinity	4.1		mg CaCO3/L	P433201	
	SM 2540 C-2015	TDS	18	I	mg/L	P433342	
	SM 2540 D-2015	TSS	3	I	mg/L	P433235	
	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P433204	
2426694	EPA 350.1 Rev. 2.0	Ammonia-N	0.021		mg N/L	P433228	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.47		mg N/L	P433101	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.008	I	mg N/L	P433111	
	EPA 365.1 Rev. 2.0	Total-P	0.022		mg P/L	P433297	
	SM 5310 B-2011	Organic Carbon	5.1		mg C/L	P433313	
2426715	EPA 200.7 Rev. 4.4	Calcium	1.54		mg/L	P433098	
		Iron	1.19E+03		ug/L	P433098	
		Magnesium	0.72		mg/L	P433098	
		Potassium	0.30	U	mg/L	P433098	
		Sodium	1.5	I	mg/L	P433098	
		Strontium	3.3	I	ug/L	P433098	
		Tin	3.0	U	ug/L	P433098	
		Titanium	0.75	U	ug/L	P433098	
		Vanadium	2.0	U	ug/L	P433098	
		Zinc	5.0	U	ug/L	P433098	
	EPA 200.8 Rev. 5.4	Aluminum	21		ug/L	P433098	
		Antimony	0.050	U	ug/L	P433098	MS
		Arsenic	0.42		ug/L	P433098	
		Barium	6.31		ug/L	P433098	
		Beryllium	0.010	I	ug/L	P433098	
		Boron	9.1		ug/L	P433098	
		Cadmium	0.020	U	ug/L	P433098	
		Chromium	0.40	U	ug/L	P433098	
		Cobalt	0.082		ug/L	P433098	
		Copper	0.40	U	ug/L	P433098	
		Lead	0.20	U	ug/L	P433098	
		Manganese	34.8		ug/L	P433098	
		Molybdenum	0.15	U	ug/L	P433098	
		Nickel	0.50	U	ug/L	P433098	
		Selenium	0.20	U	ug/L	P433098	
		Silver	0.010	U	ug/L	P433098	
		Thallium	0.10	U	ug/L	P433098	
		Hardness	6.8		mg/L	P433098	
	SM 2340 B-2011						

Field ID: G4NW0001

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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Ref. Method and Comment:
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for potassium, sodium, titanium and vanadium are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.
EPA 200.8 Rev. 5.4: Batch matrix spike recoveries for many elements are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

Sample Location: COLDWATER CREEK WEST FORK ON CR 178 Collection Date/Time: 07/25/2023 12:00

Field ID: G4NW0016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2426695	DEP SOP: NU-094-1	Color (true)	24		PCU	P433045	
	EPA 180.1 Rev. 2.0	Turbidity	5.1		NTU	P433057	
	EPA 300.0 Rev. 2.1	Chloride	6.7		mg Cl/L	P433206	
		Sulfate	1.6		mg SO4/L	P433208	
	SM 2320 B-2011	Total Alkalinity	4.2		mg CaCO3/L	P433201	
	SM 2540 C-2015	TDS	33		mg/L	P433342	
	SM 2540 D-2015	TSS	4	I	mg/L	P433235	
2426696	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P433204	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.010		mg N/L	P433228	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.23		mg N/L	P433101	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.6		mg N/L	P433110	
	EPA 365.1 Rev. 2.0	Total-P	0.008		mg P/L	P433297	
2426713	SM 5310 B-2011	Organic Carbon	2.5		mg C/L	P433313	
	EPA 8270E	Aldrin	0.68	U	ng/L	P433074	
		Alpha-BHC	0.11	U	ng/L	P433074	
		Alpha-Chlordane	0.21	U	ng/L	P433074	
		PCB-1016	2.1	U	ng/L	P433074	
		Beta-BHC	0.11	U	ng/L	P433074	
		PCB-1221	2.1	U	ng/L	P433074	
		Beta-Cyfluthrin	1.3	U	ng/L	P433074	
		PCB-1232	2.1	U	ng/L	P433074	
		Bifenthrin	0.53	U	ng/L	P433074	
		PCB-1242	2.1	U	ng/L	P433074	
		Carbophenothion	0.95	U	ng/L	P433074	
		PCB-1248	2.1	U	ng/L	P433074	
		Chlorothalonil	3.8	U	ng/L	P433074	
		PCB-1254	2.1	U	ng/L	P433074	
		Cis-Nonachlor	0.21	U	ng/L	P433074	
		PCB-1260	2.1	U	ng/L	P433074	
		Cypermethrin	1.6	U	ng/L	P433074	
		Dacthal	0.16	U	ng/L	P433074	
		DDD-p,p'	0.26	U	ng/L	P433074	
		DDE-p,p'	0.21	U	ng/L	P433074	
		DDT-p,p'	0.84	U	ng/L	P433074	
		Delta-BHC	0.42	U	ng/L	P433074	
		Deltamethrin	1.3	U	ng/L	P433074	
		Dichlobenil	0.26	U	ng/L	P433074	
		Dicofol	1.3	U	ng/L	P433074	
		Dieldrin	1.3	I	ng/L	P433074	
		Endosulfan I	0.42	U	ng/L	P433074	
		Endosulfan II	0.95	U	ng/L	P433074	
		Endosulfan Sulfate	0.32	U	ng/L	P433074	
		Endrin	0.95	U	ng/L	P433074	
		Endrin Aldehyde	0.79	U	ng/L	P433074	

Field ID: G4NW0016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2426713	EPA 8270E	Endrin Ketone	0.42	U	ng/L	P433074	
		Esfenvalerate	0.79	U	ng/L	P433074	
		Ethalfuralin	0.16	U	ng/L	P433074	
		Fenpropathrin	0.26	U	ng/L	P433074	
		Gamma-BHC	0.13	U	ng/L	P433074	
		Gamma-Chlordane	0.21	U	ng/L	P433074	
		Heptachlor	0.21	U	ng/L	P433074	
		Heptachlor Epoxide	0.26	U	ng/L	P433074	
		Hexachlorobenzene**	1.1	U	ng/L	P433074	
		Kepone	14	UJ	ng/L	P433074	CCV
		Lambda-Cyhalothrin	0.79	U	ng/L	P433074	
		Methoprene	0.79	U	ng/L	P433074	
		Methoxychlor	0.32	U	ng/L	P433074	
		MGK-264	0.21	U	ng/L	P433074	
		Mirex	0.37	U	ng/L	P433074	
		Oxychlordane	0.32	U	ng/L	P433074	
		Permethrin	1.7	U	ng/L	P433074	
		Phenothrin	0.95	U	ng/L	P433074	
		Piperonyl Butoxide	0.20	I	ng/L	P433074	
		Prallethrin	2.1	U	ng/L	P433074	
		Tau-Fluvalinate	0.26	U	ng/L	P433074	MS
		Tetramethrin	0.79	U	ng/L	P433074	
		Trans-Nonachlor	0.21	U	ng/L	P433074	
		Triclosan Methyl	0.16	U	ng/L	P433074	
		Trifluralin	0.21	U	ng/L	P433074	
	EPA 8276	Chlordane	2.1	U	ng/L	P433074	
		Toxaphene	73		ng/L	P433074	

Ref. Method and Comment:

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.

Sample Location: FB

Collection Date/Time: 07/25/2023 10:55

Field ID: FB_07252023

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2426697	DEP SOP: NU-094-1	Color (true)	2.5	U	PCU	P433045	
	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P433057	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P433206	
		Sulfate	0.20	U	mg SO4/L	P433208	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P433201	
	SM 2540 C-2015	TDS	15	U	mg/L	P433342	
	SM 2540 D-2015	TSS	2	U	mg/L	P433235	
2426698	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P433204	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P433228	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P433101	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P433111	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P433298	
2426714	SM 5310 B-2011	Organic Carbon	0.50	U	mg C/L	P433313	
	EPA 8270E	Aldrin	0.66	UJ	ng/L	P433074	SUR
		Alpha-BHC	0.10	UJ	ng/L	P433074	SUR
		Alpha-Chlordane	0.20	UJ	ng/L	P433074	SUR
		PCB-1016	2.0	U	ng/L	P433074	
		Beta-BHC	0.10	UJ	ng/L	P433074	SUR
		PCB-1221	2.0	U	ng/L	P433074	
		Beta-Cyfluthrin	1.3	UJ	ng/L	P433074	SUR
		PCB-1232	2.0	U	ng/L	P433074	
		Bifenthrin	0.51	UJ	ng/L	P433074	SUR
		PCB-1242	2.0	U	ng/L	P433074	
		Carbophenothion	0.92	UJ	ng/L	P433074	SUR
		PCB-1248	2.0	U	ng/L	P433074	
		Chlorothalonil	3.7	UJ	ng/L	P433074	SUR
		PCB-1254	2.0	U	ng/L	P433074	
		Cis-Nonachlor	0.20	UJ	ng/L	P433074	SUR
		PCB-1260	2.0	U	ng/L	P433074	
		Cypermethrin	1.5	UJ	ng/L	P433074	SUR
		Dacthal	0.15	UJ	ng/L	P433074	SUR
		DDD-p,p'	0.26	UJ	ng/L	P433074	SUR
		DDE-p,p'	0.20	UJ	ng/L	P433074	SUR
		DDT-p,p'	0.82	UJ	ng/L	P433074	SUR
		Delta-BHC	0.41	UJ	ng/L	P433074	SUR
		Deltamethrin	1.3	UJ	ng/L	P433074	SUR
		Dichlobenil	0.26	UJ	ng/L	P433074	SUR
		Dicofol	1.3	UJ	ng/L	P433074	SUR
		Dieldrin	0.41	UJ	ng/L	P433074	SUR
		Endosulfan I	0.41	UJ	ng/L	P433074	SUR
		Endosulfan II	0.92	UJ	ng/L	P433074	SUR
		Endosulfan Sulfate	0.31	UJ	ng/L	P433074	SUR
		Endrin	0.92	UJ	ng/L	P433074	SUR
		Endrin Aldehyde	0.77	UJ	ng/L	P433074	SUR

Field ID: FB_07252023

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes	
2426714	EPA 8270E	Endrin Ketone	0.41	UJ	ng/L	P433074	SUR	
		Esfenvalerate	0.77	UJ	ng/L	P433074	SUR	
		Ethalfuralin	0.15	UJ	ng/L	P433074	SUR	
		Fenpropathrin	0.26	UJ	ng/L	P433074	SUR	
		Gamma-BHC	0.13	UJ	ng/L	P433074	SUR	
		Gamma-Chlordane	0.20	UJ	ng/L	P433074	SUR	
		Heptachlor	0.20	UJ	ng/L	P433074	SUR	
		Heptachlor Epoxide	0.26	UJ	ng/L	P433074	SUR	
		Hexachlorobenzene**	1.0	UJ	ng/L	P433074	SUR	
		Kepone	14	UJ	ng/L	P433074	CCV, SUR	
		Lambda-Cyhalothrin	0.77	UJ	ng/L	P433074	SUR	
		Methoprene	0.77	UJ	ng/L	P433074	SUR	
		Methoxychlor	0.31	UJ	ng/L	P433074	SUR	
		MGK-264	0.20	UJ	ng/L	P433074	SUR	
		Mirex	0.36	UJ	ng/L	P433074	SUR	
		Oxychlordane	0.31	UJ	ng/L	P433074	SUR	
		Permethrin	1.6	UJ	ng/L	P433074	SUR	
		Phenothrin	0.92	UJ	ng/L	P433074	SUR	
		Piperonyl Butoxide	0.15	UJ	ng/L	P433074	SUR	
		Prallethrin	2.0	UJ	ng/L	P433074	SUR	
		Tau-Fluvalinate	0.26	UJ	ng/L	P433074	MS, SUR	
		Tetramethrin	0.77	UJ	ng/L	P433074	SUR	
		Trans-Nonachlor	0.20	UJ	ng/L	P433074	SUR	
		Triclosan Methyl	0.15	UJ	ng/L	P433074	SUR	
		Trifluralin	0.20	UJ	ng/L	P433074	SUR	
	EPA 8276	Chlordane	2.0	U	ng/L	P433074		
		Toxaphene	15	U	ng/L	P433074		
	2426716	EPA 200.7 Rev. 4.4	Calcium	0.075	U	mg/L	P433098	
			Iron	30	U	ug/L	P433098	
Magnesium			0.040	U	mg/L	P433098		
Potassium			0.30	U	mg/L	P433098		
Sodium			0.50	U	mg/L	P433098		
Strontium			2.0	U	ug/L	P433098		
Tin			3.0	U	ug/L	P433098		
Titanium			0.75	U	ug/L	P433098		
Vanadium			2.0	U	ug/L	P433098		
Zinc			5.0	U	ug/L	P433098		
EPA 200.8 Rev. 5.4		Aluminum	5.0	U	ug/L	P433098		
		Antimony	0.050	U	ug/L	P433098	MS	
		Arsenic	0.050	U	ug/L	P433098		
		Barium	0.20	U	ug/L	P433098		
		Beryllium	0.010	U	ug/L	P433098		
		Boron	2.0	U	ug/L	P433098		
		Cadmium	0.020	U	ug/L	P433098		
		Chromium	0.40	U	ug/L	P433098		

Field ID: FB_07252023

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2426716	EPA 200.8 Rev. 5.4	Cobalt	0.020	U	ug/L	P433098	
		Copper	0.40	U	ug/L	P433098	
		Lead	0.20	U	ug/L	P433098	
		Manganese	0.10	U	ug/L	P433098	
		Molybdenum	0.15	U	ug/L	P433098	
		Nickel	0.50	U	ug/L	P433098	
		Selenium	0.20	U	ug/L	P433098	
		Silver	0.010	U	ug/L	P433098	
		Thallium	0.10	U	ug/L	P433098	

Ref. Method and Comment:

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 200.7 Rev. 4.4: Batch matrix spike recoveries for potassium, sodium, titanium and vanadium are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

EPA 200.8 Rev. 5.4: Batch matrix spike recoveries for many elements are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P433045

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P433057

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P433098

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Strontium	2.0	U	ug/L
Tin	3.0	U	ug/L
Titanium	0.75	U	ug/L
Vanadium	2.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P433098

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Barium	0.20	U	ug/L
Beryllium	0.010	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Cobalt	0.020	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Manganese	0.10	U	ug/L
Molybdenum	0.15	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P433206

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

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Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P433208

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P433228

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P433101

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P433110

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P433111

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P433297

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P433298

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

Reference Method: EPA 8270E
Batch ID: P433074

Component	Result	Code	Units
Aldrin	0.65	U	ng/L
Aldrin	0.65	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L

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Method Blank Results

Reference Method: EPA 8270E

Batch ID: P433074

Component	Result	Code	Units
Bifenthrin	0.50	U	ng/L
Bifenthrin	0.50	U	ng/L
Carbophenothion	0.90	U	ng/L
Carbophenothion	0.90	U	ng/L
Chlorothalonil	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
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

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Method Blank Results

Reference Method: EPA 8270E

Batch ID: P433074

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8276
Batch ID: P433074

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: P433201

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

Reference Method: SM 2540 C-2015
Batch ID: P433342

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P433235

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P433204

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P433313

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: P433045

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	97.1		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P433057

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P433098

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	104		P	85 - 115
Iron	105		P	85 - 115
Magnesium	105		P	85 - 115
Potassium	100		P	85 - 115
Sodium	105		P	85 - 115
Strontium	95.5		P	85 - 115
Tin	99.5		P	85 - 115
Titanium	97.1		P	85 - 115
Vanadium	97.8		P	85 - 115
Zinc	98.4		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P433098

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	101		P	85 - 115
Antimony	101		P	85 - 115
Arsenic	99.4		P	85 - 115
Barium	102		P	85 - 115
Beryllium	94.7		P	85 - 115
Boron	109		P	85 - 115
Cadmium	99.1		P	85 - 115
Chromium	95.9		P	85 - 115
Cobalt	95.4		P	85 - 115
Copper	98.8		P	85 - 115
Lead	101		P	85 - 115
Manganese	98.7		P	85 - 115
Molybdenum	97.2		P	85 - 115
Nickel	96.4		P	85 - 115
Selenium	98.1		P	85 - 115
Silver	107		P	85 - 115
Thallium	98.3		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P433206

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P433208

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	95.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P433228

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	92.8		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P433101

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P433110

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P433111

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: P433297

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P433298

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

Reference Method: EPA 8270E
Batch ID: P433074

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	57.0		P	30 - 96.0
Alpha-BHC	86.8		P	70 - 109
Alpha-Chlordane	82.5		P	45 - 107
Beta-BHC	83.3		P	64 - 138
Beta-Cyfluthrin	81.5		P	17 - 141
Bifenthrin	53.3		P	10 - 113
Carbophenothion	48.9		P	24 - 91.0
Chlorothalonil	90.6		P	26 - 180
Cis-Nonachlor	74.6		P	37 - 102
Cypermethrin	94.8		P	20 - 133

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P433074

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Dacthal	85.8		P	69 - 114
DDD-p,p'	73.8		P	42 - 105
DDE-p,p'	77.5		P	42 - 106
DDT-p,p'	70.0		P	42 - 107
Delta-BHC	96.3		P	67 - 144
Deltamethrin	128		P	15 - 149
Dichlobenil	74.9		P	46 - 117
Dicofol	76.8		P	34 - 114
Dieldrin	79.2		P	50 - 108
Endosulfan I	89.0		P	55 - 104
Endosulfan II	60.6		P	51 - 111
Endosulfan Sulfate	77.2		P	56 - 121
Endrin	80.1		P	10 - 106
Endrin Aldehyde	69.6		P	34 - 114
Endrin Ketone	82.6		P	63 - 177
Esfenvalerate	88.4		P	29 - 143
Ethalfuralin	75.8		P	46 - 96.0
Fenpropathrin	85.0		P	28 - 115
Gamma-BHC	83.6		P	65 - 121
Gamma-Chlordane	56.3		P	39 - 103
Heptachlor	71.1		P	39 - 94.0
Heptachlor Epoxide	81.9		P	54 - 104
Hexachlorobenzene	67.7		P	36 - 100
Kepone	79.9		P	10 - 225
Lambda-Cyhalothrin	64.8		P	10 - 135
Methoprene	48.7		P	10 - 109
Methoxychlor	77.7		P	52 - 112
MGK-264	63.0		P	44 - 117
Mirex	65.4		P	20 - 90.0
Oxychlordane	73.8		P	44 - 102
PCB-1016	66.9		P	45 - 107
PCB-1260	70.1		P	40 - 118
Permethrin	73.5		P	18 - 135
Phenothrin	57.8		P	10 - 102
Piperonyl Butoxide	66.0		P	28 - 156
Prallethrin	69.7		P	28 - 113
Tau-Fluvalinate	88.3		P	10 - 123
Tetramethrin	116		P	18 - 158
Trans-Nonachlor	54.1		P	39 - 104
Triclosan Methyl	82.4		P	54 - 108
Trifluralin	72.1		P	46 - 97.0

Reference Method: EPA 8276
Batch ID: P433074

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	78.7		P	52 - 117
Toxaphene	89.4		P	44 - 125

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P433201

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	95.0		P	92 - 105

Reference Method: SM 2540 C-2015
Batch ID: P433342

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	97.4		P	90 - 110

Reference Method: SM 2540 D-2015
Batch ID: P433235

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	95.8		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P433204

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.1		P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P433313

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.6		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P433098

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2426108	Calcium	105		P	75 - 125
2426108	Iron	101		P	75 - 125
2426108	Magnesium	104		P	75 - 125
2426108	Strontium	95.6		P	75 - 125
2426108	Tin	75.7		P	75 - 125
2426108	Zinc	99.2		P	75 - 125
2426541	Calcium	105	104	P/P	80 - 120
2426541	Iron	103	103	P/P	80 - 120
2426541	Magnesium	102	103	P/P	80 - 120
2426541	Potassium	103	103	P/P	80 - 120
2426541	Sodium	104	103	P/P	80 - 120
2426541	Strontium	94.5	94.8	P/P	80 - 120
2426541	Tin	95.8	95.7	P/P	80 - 120
2426541	Titanium	97.2	98.9	P/P	80 - 120
2426541	Vanadium	97.3	98.5	P/P	80 - 120
2426541	Zinc	99.0	98.6	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P433098

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2426108	Antimony	74.6		F	80 - 120
2426108	Arsenic	99.6		P	75 - 125
2426108	Cadmium	87.1		P	75 - 125
2426108	Cobalt	79.0		P	75 - 125
2426108	Selenium	91.0		P	75 - 125
2426108	Silver	89.0		P	75 - 125
2426108	Thallium	107		P	80 - 120
2426541	Aluminum	101	101	P/P	80 - 120
2426541	Antimony	100	99.8	P/P	80 - 120
2426541	Arsenic	99.6	97.7	P/P	80 - 120
2426541	Barium	103	102	P/P	80 - 120
2426541	Beryllium	97.2	95.1	P/P	80 - 120
2426541	Boron	104	105	P/P	80 - 120
2426541	Cadmium	101	98.9	P/P	80 - 120
2426541	Chromium	96.7	95.2	P/P	80 - 120
2426541	Cobalt	96.8	95.3	P/P	80 - 120
2426541	Copper	101	100	P/P	80 - 120
2426541	Lead	102	101	P/P	80 - 120
2426541	Manganese	99.9	97.3	P/P	80 - 120
2426541	Molybdenum	98.4	97.3	P/P	80 - 120
2426541	Nickel	97.1	94.5	P/P	80 - 120
2426541	Selenium	98.6	99.2	P/P	80 - 120
2426541	Silver	105	105	P/P	80 - 120
2426541	Thallium	102	102	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P433206

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2426606	Chloride	94.2		P	90 - 110
2426737	Chloride	93.7		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P433208

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2426606	Sulfate	91.5		P	90 - 110
2426737	Sulfate	90.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P433228

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2426694	Ammonia-N	99.0	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P433101

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2426738	Kjeldahl Nitrogen	105	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P433110

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2426536	NO2NO3-N	100	98.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P433111

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2426619	NO2NO3-N	99.0	94.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P433297

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2426694	Total-P	109	109	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P433298

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2426999	Total-P	108	107	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P433074

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2426826	PCB-1016	61.7	57.3	P/P	45 - 107
2426826	PCB-1260	60.2	63.9	P/P	40 - 112
2426849	Aldrin	53.6	51.8	P/P	24 - 81.0
2426849	Alpha-BHC	99.0	94.2	P/P	65 - 110
2426849	Alpha-Chlordane	78.5	75.3	P/P	43 - 119
2426849	Beta-BHC	77.7	65.6	P/P	54 - 165
2426849	Beta-Cyfluthrin	99.0	123	P/P	27 - 165
2426849	Bifenthrin	76.9	84.5	P/P	17 - 117
2426849	Carbophenothion	53.7	65.2	P/P	21 - 108

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P433074

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2426849	Chlorothalonil	116	133	P/P	10 - 255
2426849	Cis-Nonachlor	85.4	76.6	P/P	34 - 98.0
2426849	Cypermethrin	103	120	P/P	25 - 143
2426849	Dacthal	96.5	86.5	P/P	55 - 139
2426849	DDD-p,p'	83.0	76.1	P/P	30 - 109
2426849	DDE-p,p'	78.8	74.9	P/P	35 - 106
2426849	DDT-p,p'	74.3	80.4	P/P	41 - 101
2426849	Delta-BHC	117	115	P/P	58 - 165
2426849	Deltamethrin	154	187	P/P	10 - 194
2426849	Dichlobenil	61.2	64.2	P/P	22 - 114
2426849	Dicofol	82.2	81.4	P/P	17 - 133
2426849	Dieldrin	76.7	74.8	P/P	45 - 129
2426849	Endosulfan I	90.4	81.8	P/P	49 - 104
2426849	Endosulfan II	61.5	68.1	P/P	37 - 117
2426849	Endosulfan Sulfate	67.5	70.8	P/P	38 - 128
2426849	Endrin	77.7	80.7	P/P	35 - 116
2426849	Endrin Aldehyde	57.1	49.3	P/P	19 - 108
2426849	Endrin Ketone	87.1	75.1	P/P	44 - 134
2426849	Esfenvalerate	126	155	P/P	27 - 176
2426849	Ethalfuralin	77.8	71.2	P/P	49 - 100
2426849	Fenpropathrin	107	103	P/P	34 - 117
2426849	Gamma-BHC	100	91.3	P/P	59 - 129
2426849	Gamma-Chlordane	51.6	59.5	P/P	33 - 107
2426849	Heptachlor	73.6	67.6	P/P	37 - 94.0
2426849	Heptachlor Epoxide	86.9	82.8	P/P	38 - 118
2426849	Hexachlorobenzene	65.8	64.7	P/P	35 - 97.0
2426849	Kepone	84.3	80.4	P/P	10 - 221
2426849	Lambda-Cyhalothrin	164	187	P/P	23 - 190
2426849	Methoprene	63.3	81.7	P/P	21 - 109
2426849	Methoxychlor	68.1	75.8	P/P	46 - 118
2426849	MGK-264	66.8	80.7	P/P	39 - 122
2426849	Mirex	75.4	73.0	P/P	25 - 90.0
2426849	Oxychlordane	66.2	64.1	P/P	42 - 100
2426849	Permethrin	86.7	97.5	P/P	33 - 181
2426849	Phenothrin	70.1	87.6	P/P	12 - 125
2426849	Piperonyl Butoxide	67.6	77.0	P/P	10 - 178
2426849	Prallethrin	100	120	P/P	24 - 122
2426849	Tau-Fluvalinate	128	157	P/F	13 - 151
2426849	Tetramethrin	166	169	P/P	16 - 172
2426849	Trans-Nonachlor	47.1	55.1	P/P	39 - 100
2426849	Triclosan Methyl	78.4	62.0	P/P	43 - 110
2426849	Trifluralin	70.5	66.9	P/P	45 - 94.0

Reference Method: EPA 8276

Batch ID: P433074

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2426826	Chlordane	69.7	69.1	P/P	43 - 123
2426826	Toxaphene	84.7	82.5	P/P	27 - 156

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: SM 4500-F- C-2011
Batch ID: P433204

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2426550	Fluoride	98.2	98.8	P/P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P433313

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2426553	Organic Carbon	94.4	97.0	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P433045

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2426693	Color (true)	0.147	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P433057

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2426551	Turbidity	6.34	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P433098

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2426541	Calcium	0.865	Spike	P	0 - 20
2426541	Iron	0.196	Spike	P	0 - 20
2426541	Magnesium	0.572	Spike	P	0 - 20
2426541	Potassium	0.0730	Spike	P	0 - 20
2426541	Sodium	0.387	Spike	P	0 - 20
2426541	Strontium	0.305	Spike	P	0 - 20
2426541	Tin	0.111	Spike	P	0 - 20
2426541	Titanium	1.79	Spike	P	0 - 20
2426541	Vanadium	1.19	Spike	P	0 - 20
2426541	Zinc	0.435	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P433098

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2426541	Aluminum	0.257	Spike	P	0 - 20
2426541	Antimony	0.411	Spike	P	0 - 20
2426541	Arsenic	1.93	Spike	P	0 - 20
2426541	Barium	0.884	Spike	P	0 - 20
2426541	Beryllium	2.17	Spike	P	0 - 20
2426541	Boron	1.58	Spike	P	0 - 20
2426541	Cadmium	1.69	Spike	P	0 - 20
2426541	Chromium	1.53	Spike	P	0 - 20
2426541	Cobalt	1.52	Spike	P	0 - 20
2426541	Copper	0.734	Spike	P	0 - 20
2426541	Lead	1.03	Spike	P	0 - 20
2426541	Manganese	2.18	Spike	P	0 - 20
2426541	Molybdenum	1.13	Spike	P	0 - 20
2426541	Nickel	2.71	Spike	P	0 - 20
2426541	Selenium	0.605	Spike	P	0 - 20
2426541	Silver	0.139	Spike	P	0 - 20
2426541	Thallium	0.642	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P433206

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2426606	Chloride	0.0950	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P433208

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2426606	Sulfate	0.422	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P433228

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2426694	Ammonia-N	1.54	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P433101

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2426738	Kjeldahl Nitrogen	0.0955	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P433110

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2426536	NO2NO3-N	1.51	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P433111

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2426619	NO2NO3-N	3.20	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P433297

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2426694	Total-P	0.220	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P433298

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2426999	Total-P	0.252	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P433074

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2426826	PCB-1016	7.46	Spike	P	0 - 25
2426826	PCB-1260	6.01	Spike	P	0 - 30
2426849	Aldrin	3.42	Spike	P	0 - 41
2426849	Alpha-BHC	4.94	Spike	P	0 - 25
2426849	Alpha-Chlordane	4.13	Spike	P	0 - 32
2426849	Beta-BHC	15.0	Spike	P	0 - 33
2426849	Beta-Cyfluthrin	21.6	Spike	P	0 - 43
2426849	Bifenthrin	9.52	Spike	P	0 - 52
2426849	Carbophenothion	19.2	Spike	P	0 - 49
2426849	Chlorothalonil	13.6	Spike	P	0 - 82
2426849	Cis-Nonachlor	10.9	Spike	P	0 - 33
2426849	Cypermethrin	15.5	Spike	P	0 - 51
2426849	Dacthal	10.9	Spike	P	0 - 27
2426849	DDD-p,p'	8.71	Spike	P	0 - 39
2426849	DDE-p,p'	5.07	Spike	P	0 - 31
2426849	DDT-p,p'	7.86	Spike	P	0 - 29
2426849	Delta-BHC	2.31	Spike	P	0 - 35
2426849	Deltamethrin	19.6	Spike	P	0 - 100
2426849	Dichlobenil	4.80	Spike	P	0 - 40
2426849	Dicofol	0.860	Spike	P	0 - 37
2426849	Dieldrin	2.54	Spike	P	0 - 27
2426849	Endosulfan I	9.93	Spike	P	0 - 23
2426849	Endosulfan II	10.1	Spike	P	0 - 34
2426849	Endosulfan Sulfate	4.76	Spike	P	0 - 36
2426849	Endrin	3.80	Spike	P	0 - 45
2426849	Endrin Aldehyde	14.7	Spike	P	0 - 76
2426849	Endrin Ketone	14.8	Spike	P	0 - 43
2426849	Esfenvalerate	20.6	Spike	P	0 - 51
2426849	Ethalfuralin	8.80	Spike	P	0 - 22
2426849	Fenpropathrin	3.93	Spike	P	0 - 49
2426849	Gamma-BHC	9.43	Spike	P	0 - 28
2426849	Gamma-Chlordane	14.2	Spike	P	0 - 40
2426849	Heptachlor	8.51	Spike	P	0 - 29
2426849	Heptachlor Epoxide	4.87	Spike	P	0 - 33
2426849	Hexachlorobenzene	1.74	Spike	P	0 - 36
2426849	Kepone	4.69	Spike	P	0 - 85
2426849	Lambda-Cyhalothrin	13.2	Spike	P	0 - 55
2426849	Methoprene	25.4	Spike	P	0 - 53
2426849	Methoxychlor	10.8	Spike	P	0 - 50
2426849	MGK-264	18.8	Spike	P	0 - 43
2426849	Mirex	3.16	Spike	P	0 - 40
2426849	Oxychlordane	3.31	Spike	P	0 - 31
2426849	Permethrin	11.7	Spike	P	0 - 50
2426849	Phenothrin	22.2	Spike	P	0 - 58
2426849	Piperonyl Butoxide	12.9	Spike	P	0 - 100
2426849	Prallethrin	17.7	Spike	P	0 - 39
2426849	Tau-Fluvalinate	20.0	Spike	P	0 - 54
2426849	Tetramethrin	2.09	Spike	P	0 - 51
2426849	Trans-Nonachlor	15.6	Spike	P	0 - 39
2426849	Triclosan Methyl	23.3	Spike	P	0 - 31
2426849	Trifluralin	5.24	Spike	P	0 - 22

Quality Assurance Report Precision

Reference Method: EPA 8276
Batch ID: P433074

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2426826	Chlordane	0.872	Spike	P	0 - 28
2426826	Toxaphene	2.54	Spike	P	0 - 27

Reference Method: SM 2320 B-2011
Batch ID: P433201

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2426550	Total Alkalinity	1.04	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P433342

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2426224	TDS	0.797	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P433204

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2426550	Fluoride	0.483	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2011
Batch ID: P433313

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2426553	Organic Carbon	2.72	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2426713
Field Sample ID: G4NW0016

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	59.7	P	37 - 129
EPA 8270E	Decachlorobiphenyl	50.5	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	49.8	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	67.6	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	50.1	P	28 - 102
EPA 8276	PCNB	91.2	P	49 - 115

Lab Sample ID: 2426714
Field Sample ID: FB_07252023

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	79.9	P	37 - 129
EPA 8270E	Decachlorobiphenyl	191	F	26 - 115
EPA 8270E	Tetrachloro-m-xylene	91.7	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	98.3	F	29 - 95.0
EPA 8276	Decachlorobiphenyl	77.1	P	28 - 102
EPA 8276	PCNB	88.3	P	49 - 115

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A120651

Included Lab Sample IDs: 2426693, 2426695, 2426697

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	96.8	97.9	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A120655

Included Lab Sample IDs: 2426693, 2426695, 2426697

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A120682

Included Lab Sample IDs: 2426694, 2426696, 2426698

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	98.5	98.5	P/P	90 - 110
NO2NO3-N	99.0	100	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A120686

Included Lab Sample IDs: 2426693, 2426695, 2426697

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	100	P/P	90 - 110
Sulfate	99.6	100	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A120717

Included Lab Sample IDs: 2426715, 2426716

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	98.4	97.1	P/P	90 - 110
Aluminum	99.0	96.2	P/P	90 - 110
Antimony	96.3	93.4	P/P	90 - 110
Antimony	98.3	96.5	P/P	90 - 110
Arsenic	96.2	93.1	P/P	90 - 110
Arsenic	99.4	97.3	P/P	90 - 110
Barium	98.4	93.3	P/P	90 - 110
Barium	98.6	97.5	P/P	90 - 110
Beryllium	95.6	93.3	P/P	90 - 110
Boron	96.7	104	P/P	90 - 110
Boron	98.0	96.8	P/P	90 - 110
Cadmium	96.2	93.9	P/P	90 - 110
Cadmium	98.3	97.0	P/P	90 - 110
Chromium	97.2	94.2	P/P	90 - 110
Cobalt	95.5	93.0	P/P	90 - 110
Copper	96.9	95.2	P/P	90 - 110
Lead	95.9	95.2	P/P	90 - 110
Lead	98.4	97.7	P/P	90 - 110
Manganese	95.8	95.5	P/P	90 - 110
Molybdenum	93.7	91.9	P/P	90 - 110
Molybdenum	97.5	95.9	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A120717

Included Lab Sample IDs: 2426715, 2426716

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Nickel	96.6	93.1	P/P	90 - 110
Selenium	97.5	92.6	P/P	90 - 110
Selenium	97.8	97.3	P/P	90 - 110
Silver	101	99.8	P/P	90 - 110
Silver	97.8	95.9	P/P	90 - 110
Thallium	95.2	94.4	P/P	90 - 110
Thallium	98.5	97.6	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A120725

Included Lab Sample IDs: 2426693, 2426695, 2426697

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	96.5	93.6	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A120725

Included Lab Sample IDs: 2426693, 2426695, 2426697

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.5	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A120737

Included Lab Sample IDs: 2426694, 2426696, 2426698

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.0	97.7	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A120746

Included Lab Sample IDs: 2426694, 2426696, 2426698

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	93.4	91.3	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A120750

Included Lab Sample IDs: 2426715

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Beryllium	97.9	98.5	P/P	90 - 110
Chromium	98.9	102	P/P	90 - 110
Cobalt	97.5	99.3	P/P	90 - 110
Copper	97.7	98.1	P/P	90 - 110
Manganese	99.9	104	P/P	90 - 110
Nickel	98.5	99.7	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A120773

Included Lab Sample IDs: 2426715, 2426716

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	101	101	P/P	90 - 110
Calcium	102	101	P/P	95 - 105
Iron	101	101	P/P	90 - 110
Iron	103	102	P/P	95 - 105
Magnesium	100	100	P/P	90 - 110
Magnesium	102	101	P/P	95 - 105
Potassium	97.4	96.3	P/P	90 - 110
Potassium	98.2	99.2	P/P	95 - 105
Sodium	100	96.9	P/P	90 - 110
Sodium	101	103	P/P	95 - 105
Strontium	101	94.4	P/P	95 - 105
Strontium	93.7	98.7	P/P	90 - 110
Tin	95.2	101	P/P	90 - 110
Tin	99.7	97.2	P/P	95 - 105
Titanium	94.7	100	P/P	90 - 110
Titanium	98.1	95.5	P/P	95 - 105
Vanadium	95.2	101	P/P	90 - 110
Vanadium	98.8	96.0	P/P	95 - 105
Zinc	101	99.8	P/P	95 - 105
Zinc	98.2	103	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A120780

Included Lab Sample IDs: 2426694, 2426696, 2426698

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.2	97.2	P/P	90 - 110
Organic Carbon	96.4	96.4	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A120808

Included Lab Sample IDs: 2426713, 2426714

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	97.0		P	80 - 120
Alpha-BHC	98.5		P	80 - 120
Alpha-Chlordane	104		P	80 - 120
Beta-BHC	103		P	80 - 120
Beta-Cyfluthrin	93.2		P	80 - 120
Bifenthrin	95.3		P	80 - 120
Carbophenothion	92.9		P	80 - 120
Chlorothalonil	95.4		P	80 - 120
Cis-Nonachlor	105		P	80 - 120
Cypermethrin	104		P	80 - 120
Dacthal	106		P	80 - 120
DDD-p,p'	111		P	80 - 120
DDE-p,p'	103		P	80 - 120
DDT-p,p'	96.7		P	80 - 120
Delta-BHC	101		P	80 - 120
Deltamethrin	98.5		P	80 - 120
Dichlobenil	101		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A120808

Included Lab Sample IDs: 2426713, 2426714

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Dicofol	90.9		P	80 - 120
Dieldrin	103		P	80 - 120
Endosulfan I	98.5		P	80 - 120
Endosulfan II	95.0		P	80 - 120
Endosulfan Sulfate	111		P	80 - 120
Endrin	101		P	80 - 120
Endrin Aldehyde	94.3		P	80 - 120
Endrin Ketone	101		P	80 - 120
Esfenvalerate	93.7		P	80 - 120
Ethalfuralin	102		P	80 - 120
Fenpropathrin	101		P	80 - 120
Gamma-BHC	105		P	80 - 120
Gamma-Chlordane	96.5		P	80 - 120
Heptachlor	99.7		P	80 - 120
Heptachlor Epoxide	98.3		P	80 - 120
Hexachlorobenzene	105		P	80 - 120
Kepone	58.1*		F	80 - 120
Lambda-Cyhalothrin	98.0		P	80 - 120
Methoprene	97.1		P	80 - 120
Methoxychlor	92.4		P	80 - 120
MGK-264	94.9		P	80 - 120
Mirex	98.2		P	80 - 120
Oxychlordane	103		P	80 - 120
Permethrin	97.8		P	80 - 120
Phenothrin	94.1		P	80 - 120
Piperonyl Butoxide	111		P	80 - 120
Prallethrin	94.4		P	80 - 120
Tau-Fluvalinate	93.9		P	80 - 120
Tetramethrin	100		P	80 - 120
Trans-Nonachlor	93.2		P	80 - 120
Triclosan Methyl	102		P	80 - 120
Trifluralin	98.7		P	80 - 120

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A120829

Included Lab Sample IDs: 2426694, 2426696, 2426698

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	102	102	P/P	90 - 110
Total-P	99.8	102	P/P	90 - 110

Reference Method: EPA 8276

Run ID: A120833

Included Lab Sample IDs: 2426713, 2426714

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	100		P	80 - 120
Toxaphene	94.7		P	80 - 120

Quality Assurance Report

Calibration Verification

Reference Method: EPA 8270E

Run ID: A120840

Included Lab Sample IDs: 2426713, 2426714

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	93.7		P	80 - 120
PCB-1260	95.2		P	80 - 120

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

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

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			LCS	Precision SMP	MS
DEP SOP: NU-094-1	Color (true)	97.1					0.147	
EPA 180.1 Rev. 2.0	Turbidity	100					6.34	
EPA 200.7 Rev. 4.4	Calcium	104	105	105	104			0.865
	Iron	105	101	103	103			0.196
	Magnesium	105	104	102	103			0.572
	Potassium	100	103	103				0.0730
	Sodium	105	104	103				0.387
	Strontium	95.5	95.6	94.5	94.8			0.305
	Tin	99.5	75.7	95.8	95.7			0.111
	Titanium	97.1	97.2	98.9				1.79
	Vanadium	97.8	97.3	98.5				1.19
	Zinc	98.4	99.2	99.0	98.6			0.435
EPA 200.8 Rev. 5.4	Aluminum	101	101	101				0.257
	Antimony	101	100	99.8	74.6			0.411
	Arsenic	99.4	99.6	97.7	99.6			1.93
	Barium	102	103	102				0.884
	Beryllium	94.7	97.2	95.1				2.17
	Boron	109	104	105				1.58
	Cadmium	99.1	101	98.9	87.1			1.69
	Chromium	95.9	96.7	95.2				1.53
	Cobalt	95.4	96.8	95.3	79.0			1.52
	Copper	98.8	101	100				0.734
	Lead	101	102	101				1.03
	Manganese	98.7	99.9	97.3				2.18
	Molybdenum	97.2	98.4	97.3				1.13
	Nickel	96.4	97.1	94.5				2.71
	Selenium	98.1	98.6	99.2	91.0			0.605
	Silver	107	105	105	89.0			0.139
	Thallium	98.3	102	102	107			0.642
EPA 300.0 Rev. 2.1	Chloride	99.5	94.2	93.7			0.0950	
	Sulfate	95.9	91.5	90.9			0.422	
EPA 350.1 Rev. 2.0	Ammonia-N	92.8	99.0	101				1.54
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.8	105	104				0.0955
EPA 353.2 Rev. 2.0	NO2NO3-N	102	100	98.5				1.51
	NO2NO3-N	102	99.0	94.0				3.20
EPA 365.1 Rev. 2.0	Total-P	105	109	109				0.220
	Total-P	105	108	107				0.252
EPA 8270E	Aldrin	57.0	53.6	51.8				3.42
	Alpha-BHC	86.8	99.0	94.2				4.94
	Alpha-Chlordane	82.5	78.5	75.3				4.13
	Beta-BHC	83.3	77.7	65.6				15.0
	Beta-Cyfluthrin	81.5	99.0	123				21.6
	Bifenthrin	53.3	76.9	84.5				9.52
	Carbophenothion	48.9	53.7	65.2				19.2
	Chlorothalonil	90.6	116	133				13.6
	Cis-Nonachlor	74.6	85.4	76.6				10.9
	Cypermethrin	94.8	103	120				15.5
	Dacthal	85.8	96.5	86.5				10.9
	DDD-p,p'	73.8	83.0	76.1				8.71
	DDE-p,p'	77.5	78.8	74.9				5.07
	DDT-p,p'	70.0	74.3	80.4				7.86
	Delta-BHC	96.3	117	115				2.31
	Deltamethrin	128	154	187				19.6
	Dichlobenil	74.9	61.2	64.2				4.80

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	SMP
EPA 8270E	Dicofol	76.8	82.2	81.4		0.860
	Dieldrin	79.2	76.7	74.8		2.54
	Endosulfan I	89.0	90.4	81.8		9.93
	Endosulfan II	60.6	61.5	68.1		10.1
	Endosulfan Sulfate	77.2	67.5	70.8		4.76
	Endrin	80.1	77.7	80.7		3.80
	Endrin Aldehyde	69.6	57.1	49.3		14.7
	Endrin Ketone	82.6	87.1	75.1		14.8
	Esfenvalerate	88.4	126	155		20.6
	Ethalfuralin	75.8	77.8	71.2		8.80
	Fenpropathrin	85.0	107	103		3.93
	Gamma-BHC	83.6	100	91.3		9.43
	Gamma-Chlordane	56.3	51.6	59.5		14.2
	Heptachlor	71.1	73.6	67.6		8.51
	Heptachlor Epoxide	81.9	86.9	82.8		4.87
	Hexachlorobenzene	67.7	65.8	64.7		1.74
	Kepone	79.9	84.3	80.4		4.69
	Lambda-Cyhalothrin	64.8	164	187		13.2
	Methoprene	48.7	63.3	81.7		25.4
	Methoxychlor	77.7	68.1	75.8		10.8
	MGK-264	63.0	66.8	80.7		18.8
	Mirex	65.4	75.4	73.0		3.16
	Oxychlordane	73.8	66.2	64.1		3.31
	PCB-1016	66.9	61.7	57.3		7.46
	PCB-1260	70.1	60.2	63.9		6.01
	Permethrin	73.5	86.7	97.5		11.7
	Phenothrin	57.8	70.1	87.6		22.2
	Piperonyl Butoxide	66.0	67.6	77.0		12.9
	Prallethrin	69.7	100	120		17.7
	Tau-Fluvalinate	88.3	128	157		20.0
	Tetramethrin	116	166	169		2.09
	Trans-Nonachlor	54.1	47.1	55.1		15.6
	Triclosan Methyl	82.4	78.4	62.0		23.3
	Trifluralin	72.1	70.5	66.9		5.24
EPA 8276	Chlordane	78.7	69.7	69.1		0.872
	Toxaphene	89.4	84.7	82.5		2.54
SM 2320 B-2011	Total Alkalinity	95.0			1.04	
SM 2540 C-2015	TDS	97.4			0.797	
SM 2540 D-2015	TSS	95.8				
SM 4500-F- C-2011	Fluoride	98.1	98.2	98.8		0.483
SM 5310 B-2011	Organic Carbon	94.6	94.4	97.0		2.72

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2426693, 2426695, 2426697
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2426693, 2426695, 2426697
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2426715, 2426716
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2426715, 2426716
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2426693, 2426695, 2426697
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2426693, 2426695, 2426697

Reference Method Descriptions

Method	Description	Associated Samples
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2426694, 2426696, 2426698
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2426694, 2426696, 2426698
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2426694, 2426696, 2426698
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2426694, 2426696, 2426698
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2426713, 2426714
EPA 8270E	PCBs in water matrices by GC/MS/MS	2426713, 2426714
EPA 8276	Chlordane and Toxaphene in water matrices by GC/MS with Negative Chemical Ionization	2426713, 2426714
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2426693, 2426695, 2426697
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2426715
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2426693, 2426695, 2426697
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2426693, 2426695, 2426697
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2426693, 2426695, 2426697
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2426694, 2426696, 2426698

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: NU-094-1	07/26/2023			07/26/2023 14:03	Samantha L Bates	2426693
	07/26/2023			07/26/2023 14:04	Samantha L Bates	2426695
	07/26/2023			07/26/2023 14:05	Samantha L Bates	2426697
EPA 180.1 Rev. 2.0	07/26/2023			07/26/2023 13:34	Anna M. Plaviak	2426693
	07/26/2023			07/26/2023 13:35	Anna M. Plaviak	2426695
	07/26/2023			07/26/2023 13:36	Anna M. Plaviak	2426697
EPA 200.7 Rev. 4.4	07/26/2023	07/27/2023 12:10	George D Taylor	08/01/2023 17:05	Chase Roberts	2426716
	07/26/2023	07/27/2023 12:10	George D Taylor	08/01/2023 21:33	Chase Roberts	2426715
EPA 200.8 Rev. 5.4	07/26/2023	07/27/2023 12:10	George D Taylor	07/28/2023 13:43	Emily M Philpot	2426716
	07/26/2023	07/27/2023 12:10	George D Taylor	07/28/2023 17:54	Emily M Philpot	2426715
	07/26/2023	07/27/2023 12:10	George D Taylor	07/31/2023 11:29	Conrad Hartmann	2426715
EPA 300.0 Rev. 2.1	07/26/2023			07/28/2023 18:48	Anna M. Plaviak	2426693
	07/26/2023			07/28/2023 19:03	Anna M. Plaviak	2426695
	07/26/2023			07/28/2023 19:18	Anna M. Plaviak	2426697
EPA 350.1 Rev. 2.0	07/26/2023			07/31/2023 12:22	Ping Hua	2426694
	07/26/2023			07/31/2023 12:33	Ping Hua	2426696
	07/26/2023			07/31/2023 12:34	Ping Hua	2426698
EPA 351.2 Rev. 2.0	07/26/2023	07/27/2023 12:39	Dana G. Hughes	07/31/2023 16:18	Samantha L Bates	2426694
	07/26/2023	07/27/2023 12:39	Dana G. Hughes	07/31/2023 16:20	Samantha L Bates	2426696
	07/26/2023	07/27/2023 12:39	Dana G. Hughes	07/31/2023 16:21	Samantha L Bates	2426698
EPA 353.2 Rev. 2.0	07/26/2023			07/27/2023 11:40	Beverly Y. Sanders	2426694
	07/26/2023			07/27/2023 12:46	Beverly Y. Sanders	2426696
	07/26/2023			07/27/2023 12:48	Beverly Y. Sanders	2426698
EPA 365.1 Rev. 2.0	07/26/2023	08/02/2023 14:24	Alexis Price	08/03/2023 16:10	James L Waggeberby	2426694
	07/26/2023	08/02/2023 14:24	Alexis Price	08/03/2023 16:15	James L Waggeberby	2426696
	07/26/2023	08/02/2023 14:24	Alexis Price	08/03/2023 16:24	James L Waggeberby	2426698
EPA 8270E	07/26/2023	07/31/2023 08:30	Rasheda Ghaffari	08/02/2023 19:51	Michael Poppell	2426713
	07/26/2023	07/31/2023 08:30	Rasheda Ghaffari	08/02/2023 20:21	Michael Poppell	2426714
	07/26/2023	07/31/2023 08:30	Rasheda Ghaffari	08/03/2023 22:32	Julie Wi	2426713
	07/26/2023	07/31/2023 08:30	Rasheda Ghaffari	08/03/2023 23:02	Julie Wi	2426714
EPA 8276	07/26/2023	07/31/2023 08:30	Rasheda Ghaffari	08/03/2023 15:53	Arthur Maknenko	2426713
	07/26/2023	07/31/2023 08:30	Rasheda Ghaffari	08/03/2023 16:49	Arthur Maknenko	2426714
SM 2320 B-2011	07/26/2023			07/28/2023 03:41	Dale L. Simmons	2426693
	07/26/2023			07/28/2023 03:51	Dale L. Simmons	2426695
	07/26/2023			07/28/2023 04:01	Dale L. Simmons	2426697
SM 2340 B-2011	07/26/2023			08/01/2023 21:33	Chase Roberts	2426715
SM 2540 C-2015	07/26/2023			07/27/2023 16:02	Yijie Li	2426693, 2426695, 2426697
SM 2540 D-2015	07/26/2023			07/27/2023 16:02	Yijie Li	2426693, 2426695, 2426697
SM 4500-F- C-2011	07/26/2023			07/28/2023 03:41	Dale L. Simmons	2426693
	07/26/2023			07/28/2023 03:51	Dale L. Simmons	2426695

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	07/26/2023			07/28/2023 04:01	Dale L. Simmons	2426697
SM 5310 B-2011	07/26/2023			08/01/2023 13:50	Elise M. Gillis	2426696
	07/26/2023			08/01/2023 18:05	Elise M. Gillis	2426694
	07/26/2023			08/01/2023 18:18	Elise M. Gillis	2426698