

Chemical Analysis Report

SE-DIST-2023-11-15-03

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

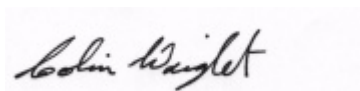
Event Description: **St. Sebastian River Run**
Request ID: **RQ-2023-11-13-53**
Customer: **SE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
2199 South Rock Road
Fort Pierce, FL 34945
Attn: Jordan Skaggs

For additional information please contact
Colin Wright, Ph.D.
Chris Bowen, B.S.
Kerry Tate, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Colin Wright, Program Administrator

Date Certified: 13-DEC-2023 13:42

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: 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: SOUTH PRONG SEBASTIAN AT PARK DOCK Collection Date/Time: 11/14/2023 11:20

Field ID: G5SE0079

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2451713	EPA 8270E	Aldrin	0.67	U	ng/L	P437988	LCS, MS
		Alpha-BHC	0.10	UJ	ng/L	P437988	
		Alpha-Chlordane	0.21	U	ng/L	P437988	
		PCB-1016	2.1	U	ng/L	P437988	
		Beta-BHC	0.10	U	ng/L	P437988	
		PCB-1221	2.1	U	ng/L	P437988	
		Beta-Cyfluthrin	1.3	U	ng/L	P437988	
		PCB-1232	2.1	U	ng/L	P437988	
		Bifenthrin	0.52	U	ng/L	P437988	
		PCB-1242	2.1	U	ng/L	P437988	
		Carbophenothion	0.93	U	ng/L	P437988	
		PCB-1248	2.1	U	ng/L	P437988	
		Chlorothalonil	3.7	U	ng/L	P437988	
		PCB-1254	2.1	U	ng/L	P437988	
		Cis-Nonachlor	0.21	U	ng/L	P437988	
		PCB-1260	2.1	U	ng/L	P437988	LCS
		Cypermethrin	1.5	U	ng/L	P437988	
		Dacthal	0.15	UJ	ng/L	P437988	
		DDD-p,p'	0.26	U	ng/L	P437988	
		DDE-p,p'	0.21	U	ng/L	P437988	
		DDT-p,p'	0.83	U	ng/L	P437988	
		Delta-BHC	0.41	U	ng/L	P437988	
		Deltamethrin	1.3	U	ng/L	P437988	
		Dichlobenil	0.26	U	ng/L	P437988	
		Dicofol	1.3	U	ng/L	P437988	
		Dieldrin	0.41	U	ng/L	P437988	
		Endosulfan I	0.41	U	ng/L	P437988	
		Endosulfan II	0.93	U	ng/L	P437988	CCV LCS, MS
		Endosulfan Sulfate	0.31	U	ng/L	P437988	
		Endrin	0.93	U	ng/L	P437988	
		Endrin Aldehyde	0.77	UJ	ng/L	P437988	
		Endrin Ketone	0.41	UJ	ng/L	P437988	
		Esfenvalerate	0.77	U	ng/L	P437988	
		Ethalfuralin	0.15	U	ng/L	P437988	
		Fenpropathrin	0.26	U	ng/L	P437988	
		Gamma-BHC	0.13	U	ng/L	P437988	
		Gamma-Chlordane	0.21	U	ng/L	P437988	
		Heptachlor	0.21	U	ng/L	P437988	
		Heptachlor Epoxide	0.26	U	ng/L	P437988	
		Hexachlorobenzene**	1.0	U	ng/L	P437988	
		Kepone	14	U	ng/L	P437988	
		Lambda-Cyhalothrin	0.77	U	ng/L	P437988	
		Methoprene	0.77	U	ng/L	P437988	
		Methoxychlor	0.31	U	ng/L	P437988	

Field ID: G5SE0079

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2451713	EPA 8270E	MGK-264	0.21	U	ng/L	P437988	
		Mirex	0.36	U	ng/L	P437988	
		Oxychlordane	0.31	U	ng/L	P437988	
		Permethrin	1.7	U	ng/L	P437988	
		Phenothrin	0.93	U	ng/L	P437988	
		Piperonyl Butoxide	0.15	U	ng/L	P437988	
		Prallethrin	2.1	U	ng/L	P437988	
		Tau-Fluvalinate	0.26	U	ng/L	P437988	
		Tetramethrin	0.77	U	ng/L	P437988	
		Trans-Nonachlor	0.21	U	ng/L	P437988	
		Triclosan Methyl	0.15	U	ng/L	P437988	
		Trifluralin	0.21	U	ng/L	P437988	
	EPA 8276	Chlordane	2.1	U	ng/L	P437988	
		Toxaphene	15	U	ng/L	P437988	

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

**Sample Location: C 54 CONFLUENCE WITH SEBASTIAN NEAR
MOCKINGBIRD LANE DOCK**

Collection Date/Time: 11/14/2023 12:30

Field ID: G5SE0106

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2451704	DEP SOP: NU-094-1	Color (true)	45		PCU	P437808	
	EPA 180.1 Rev. 2.0	Turbidity	2.8		NTU	P437852	
	EPA 300.0 Rev. 2.1	Chloride	6.2E+03		mg Cl/L	P438358	
		Sulfate	890		mg SO4/L	P438319	
	SM 2320 B-2011	Total Alkalinity	161		mg CaCO3/L	P438025	
	SM 2540 C-2015	TDS	1.09E+04		mg/L	P438345	
	SM 2540 D-2015	TSS	3	U	mg/L	P438342	
2451705	SM 4500-F- C-2011	Fluoride	0.63		mg F/L	P438029	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.007		mg N/L	P438429	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.82		mg N/L	P437856	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.012		mg N/L	P438184	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P438041	
2451714	SM 5310 B-2011	Organic Carbon	9.9		mg C/L	P437994	
	EPA 200.7 Rev. 4.4	Calcium	184		mg/L	P438062	
		Iron	210	I	ug/L	P438062	
		Magnesium	392		mg/L	P438062	
		Potassium	117		mg/L	P438062	
		Sodium	3.15E+03		mg/L	P438062	
		Strontium	4.65E+03		ug/L	P438062	
		Tin	60	U	ug/L	P438062	
		Titanium	2.2	U	ug/L	P438062	
		Vanadium	6.0	U	ug/L	P438062	
		Zinc	18	I	ug/L	P438062	
		Aluminum	49	I	ug/L	P438062	
		Antimony	0.20	U	ug/L	P438062	
		Arsenic	1.61		ug/L	P438062	
		Barium	31.7		ug/L	P438062	
	EPA 200.8 Rev. 5.4	Beryllium	0.040	U	ug/L	P438062	
		Boron	1.34E+03		ug/L	P438062	
		Cadmium	0.080	U	ug/L	P438062	
		Chromium	4.0	U	ug/L	P438062	
		Cobalt	0.080	U	ug/L	P438062	
		Copper	1.6	U	ug/L	P438062	
		Lead	0.80	U	ug/L	P438062	
		Manganese	14.1		ug/L	P438062	
		Molybdenum	5.2		ug/L	P438062	
		Nickel	2.0	U	ug/L	P438062	
		Selenium	0.80	U	ug/L	P438062	
		Silver	0.040	U	ug/L	P438062	
		Thallium	0.40	U	ug/L	P438062	
		Hardness	2.07E+03		mg/L	P438062	

Field ID: G5SE0106

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
-----------	-------------	-----------	--------	------	-------	----------	----------

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 calcium, magnesium, potassium, sodium and strontium are unavailable because of high analyte concentration in the QC sample.
EPA 200.8 Rev. 5.4: Batch matrix spike recoveries for boron are unavailable because of high analyte concentration in the QC sample.

Sample Location: MICCO DITCH AT MICCO RD

Collection Date/Time: 11/14/2023 12:45

Field ID: G5SE0048

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2451706	DEP SOP: NU-094-1	Color (true)	53	A	PCU	P437840	
	EPA 180.1 Rev. 2.0	Turbidity	16		NTU	P437852	
	EPA 300.0 Rev. 2.1	Chloride	120		mg Cl/L	P438316	
		Sulfate	28		mg SO4/L	P438319	
	SM 2320 B-2011	Total Alkalinity	231		mg CaCO3/L	P438014	
	SM 2540 C-2015	TDS	476		mg/L	P438344	
	SM 2540 D-2015	TSS	12		mg/L	P438340	
	SM 4500-F- C-2011	Fluoride	0.27		mg F/L	P438332	
2451707	EPA 350.1 Rev. 2.0	Ammonia-N	0.14		mg N/L	P438431	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.99		mg N/L	P438035	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.14		mg N/L	P438097	
	EPA 365.1 Rev. 2.0	Total-P	0.10		mg P/L	P438206	
	SM 5310 B-2011	Organic Carbon	16		mg C/L	P438145	

Ref. Method and Comment:

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

SM 4500-F- C-2011: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P437808

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: DEP SOP: NU-094-1
Batch ID: P437840

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P437852

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P438062

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: P438062

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	0.012	I	ug/L
Thallium	0.10	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438316

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438319

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438358

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438429

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438431

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437856

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P438035

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438097

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438184

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P438041

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P438206

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

Reference Method: EPA 8270E
Batch ID: P437988

Component	Result	Code	Units
Aldrin	0.65	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Bifenthrin	0.50	U	ng/L
Carbophenothion	0.90	U	ng/L
Chlorothalonil	3.6	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cypermethrin	1.5	U	ng/L
Dacthal	0.15	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDT-p,p'	0.80	U	ng/L
Delta-BHC	0.40	U	ng/L
Deltamethrin	1.2	U	ng/L
Dichlobenil	0.25	U	ng/L
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.90	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.90	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Ketone	0.40	U	ng/L
Esfenvalerate	0.75	U	ng/L
Ethalfuralin	0.15	U	ng/L
Fenpropathrin	0.25	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Kepone	14	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoxychlor	0.30	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.35	U	ng/L
Oxychlordane	0.30	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P437988

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

Reference Method: EPA 8276
Batch ID: P437988

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

Reference Method: SM 2320 B-2011
Batch ID: P438014

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

Reference Method: SM 2320 B-2011
Batch ID: P438025

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

Reference Method: SM 2540 C-2015
Batch ID: P438344

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-2015
Batch ID: P438345

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P438340

Component	Result	Code	Units
-----------	--------	------	-------

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 D-2015
Batch ID: P438340

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P438342

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P438029

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 4500-F- C-2011
Batch ID: P438332

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P437994

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

Reference Method: SM 5310 B-2011
Batch ID: P438145

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: P437808

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

Reference Method: DEP SOP: NU-094-1
Batch ID: P437840

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: P437852

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P438062

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	101		P	85 - 115
Iron	99.5		P	85 - 115
Magnesium	99.3		P	85 - 115
Potassium	97.9		P	85 - 115
Sodium	101		P	85 - 115
Strontium	97.5		P	85 - 115
Tin	94.4		P	85 - 115
Titanium	95.5		P	85 - 115
Vanadium	96.5		P	85 - 115
Zinc	94.8		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P438062

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	102		P	85 - 115
Antimony	105		P	85 - 115
Arsenic	103		P	85 - 115
Barium	105		P	85 - 115
Beryllium	94.1		P	85 - 115
Boron	104		P	85 - 115
Cadmium	103		P	85 - 115
Chromium	104		P	85 - 115
Cobalt	102		P	85 - 115
Copper	100		P	85 - 115
Lead	98.4		P	85 - 115
Manganese	102		P	85 - 115
Molybdenum	103		P	85 - 115
Nickel	101		P	85 - 115
Selenium	105		P	85 - 115
Silver	108		P	85 - 115
Thallium	104		P	85 - 115

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438316

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438319

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438358

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	99.3		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438429

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	92.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438431

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	95.2		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437856

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P438035

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438097

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438184

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P438041

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

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P438206

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

Reference Method: EPA 8270E

Batch ID: P437988

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	41.8		P	30 - 96.0
Alpha-BHC	61.4		F	70 - 109
Alpha-Chlordane	58.3		P	45 - 107
Beta-BHC	77.8		P	64 - 138
Beta-Cyfluthrin	54.9		P	17 - 141
Bifenthrin	43.4		P	10 - 113
Carbophenothion	40.0		P	24 - 91.0
Chlorothalonil	90.3		P	26 - 180
Cis-Nonachlor	71.3		P	37 - 102
Cypermethrin	60.2		P	20 - 133
Dacthal	67.4		F	69 - 114
DDD-p,p'	51.5		P	42 - 105
DDE-p,p'	57.0		P	42 - 106
DDT-p,p'	60.4		P	42 - 107
Delta-BHC	79.7		P	67 - 144
Deltamethrin	99.0		P	15 - 149
Dichlobenil	59.6		P	46 - 117
Dicofol	73.5		P	34 - 114
Dieldrin	61.1		P	50 - 108
Endosulfan I	76.6		P	55 - 104
Endosulfan II	79.0		P	51 - 111
Endosulfan Sulfate	75.5		P	56 - 121
Endrin	68.4		P	10 - 106
Endrin Aldehyde	70.1		P	34 - 114
Endrin Ketone	37.0		F	63 - 177
Esfenvalerate	71.8		P	29 - 143
Ethalfuralin	73.3		P	46 - 96.0
Fenpropathrin	71.8		P	28 - 115
Gamma-BHC	67.3		P	65 - 121
Gamma-Chlordane	50.2		P	39 - 103
Heptachlor	56.7		P	39 - 94.0
Heptachlor Epoxide	72.0		P	54 - 104
Hexachlorobenzene	51.2		P	36 - 100
Kepone	91.6		P	10 - 225
Lambda-Cyhalothrin	50.8		P	10 - 135
Methoprene	45.3		P	10 - 109
Methoxychlor	69.2		P	52 - 112
MGK-264	54.9		P	44 - 117
Mirex	33.3		P	20 - 90.0
Oxychlordane	77.6		P	44 - 102

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P437988

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
PCB-1016	80.8		P	45 - 107
PCB-1260	82.3		P	40 - 118
Permethrin	57.9		P	18 - 135
Phenothrin	38.8		P	10 - 102
Piperonyl Butoxide	54.2		P	28 - 156
Prallethrin	53.5		P	28 - 113
Tau-Fluvalinate	72.1		P	10 - 123
Tetramethrin	44.3		P	18 - 158
Trans-Nonachlor	52.3		P	39 - 104
Triclosan Methyl	80.6		P	54 - 108
Trifluralin	46.3		P	46 - 97.0

Reference Method: EPA 8276
Batch ID: P437988

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	63.1		P	52 - 117
Toxaphene	73.8		P	44 - 125

Reference Method: SM 2320 B-2011
Batch ID: P438014

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	100		P	92 - 105

Reference Method: SM 2320 B-2011
Batch ID: P438025

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	92 - 105

Reference Method: SM 2540 C-2015
Batch ID: P438344

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	94.0		P	85 - 115

Reference Method: SM 2540 C-2015
Batch ID: P438345

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	96.8		P	85 - 115

Reference Method: SM 2540 D-2015
Batch ID: P438340

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	107		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2540 D-2015
Batch ID: P438342

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	105		P	85 - 115

Reference Method: SM 4500-F- C-2011
Batch ID: P438029

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

Reference Method: SM 4500-F- C-2011
Batch ID: P438332

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

Reference Method: SM 5310 B-2011
Batch ID: P437994

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.7		P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P438145

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.1		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P438062

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2451742	Iron	90.5	91.8	P/P	70 - 130
2451742	Tin	76.5	79.1	P/P	70 - 130
2451742	Titanium	90.7	97.8	P/P	70 - 130
2451742	Vanadium	97.7	99.9	P/P	70 - 130
2451742	Zinc	93.0	94.8	P/P	70 - 130

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P438062

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2451742	Aluminum	110	113	P/P	70 - 130
2451742	Antimony	104	104	P/P	70 - 130
2451742	Arsenic	116	115	P/P	70 - 130
2451742	Barium	107	105	P/P	70 - 130
2451742	Beryllium	97.4	97.7	P/P	70 - 130
2451742	Cadmium	96.5	97.2	P/P	70 - 130
2451742	Chromium	97.9	98.4	P/P	70 - 130
2451742	Cobalt	94.0	93.2	P/P	70 - 130
2451742	Copper	88.3	88.5	P/P	70 - 130
2451742	Lead	107	105	P/P	70 - 130
2451742	Manganese	89.5	89.0	P/P	70 - 130
2451742	Molybdenum	120	117	P/P	70 - 130
2451742	Nickel	96.9	95.4	P/P	70 - 130
2451742	Selenium	105	104	P/P	70 - 130
2451742	Silver	99.8	98.1	P/P	70 - 130
2451742	Thallium	113	114	P/P	70 - 130

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438316

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2451672	Chloride	101		P	90 - 110
2451803	Chloride	105		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438319

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2451672	Sulfate	101		P	90 - 110
2451803	Sulfate	106		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438358

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2452492	Chloride	101		P	90 - 110
2452502	Chloride	106		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438429

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
---------------	-----------	---------	---------	-----------	----------------

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438429

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2451499	Ammonia-N	103	106	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438431

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2451675	Ammonia-N	101	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437856

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2451405	Kjeldahl Nitrogen	105	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P438035

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2451677	Kjeldahl Nitrogen	106	92.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438097

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2451634	NO2NO3-N	99.3	97.3	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438184

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2451500	NO2NO3-N	99.4	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P438041

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2451499	Total-P	98.0	97.3	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P438206

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2451809	Total-P	101	102	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P437988

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2451509	PCB-1016	103	99.4	P/P	45 - 107
2451509	PCB-1260	106	105	P/P	40 - 112
2451647	Aldrin	59.8	65.5	P/P	24 - 81.0
2451647	Alpha-BHC	64.7	75.6	F/P	65 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P437988

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2451647	Alpha-Chlordane	57.9	50.5	P/P	43 - 119
2451647	Beta-BHC	71.2	69.4	P/P	54 - 165
2451647	Beta-Cyfluthrin	74.1	79.6	P/P	27 - 165
2451647	Bifenthrin	68.5	73.3	P/P	17 - 117
2451647	Carbophenothion	59.1	61.2	P/P	21 - 108
2451647	Chlorothalonil	104	104	P/P	10 - 255
2451647	Cis-Nonachlor	72.4	57.4	P/P	34 - 98.0
2451647	Cypermethrin	72.8	81.3	P/P	25 - 143
2451647	Dacthal	64.6	67.0	P/P	55 - 139
2451647	DDD-p,p'	48.2	39.2	P/P	30 - 109
2451647	DDE-p,p'	62.0	55.1	P/P	35 - 106
2451647	DDT-p,p'	76.8	75.8	P/P	41 - 101
2451647	Delta-BHC	83.4	89.0	P/P	58 - 165
2451647	Deltamethrin	157	161	P/P	10 - 194
2451647	Dichlobenil	43.9	41.4	P/P	22 - 114
2451647	Dicofol	82.6	76.4	P/P	17 - 133
2451647	Dieldrin	60.7	53.7	P/P	45 - 129
2451647	Endosulfan I	78.9	77.9	P/P	49 - 104
2451647	Endosulfan II	87.2	86.0	P/P	37 - 117
2451647	Endosulfan Sulfate	81.8	74.9	P/P	38 - 128
2451647	Endrin	62.7	53.9	P/P	35 - 116
2451647	Endrin Aldehyde	41.4	34.4	P/P	19 - 108
2451647	Endrin Ketone	35.1	30.7	F/F	44 - 134
2451647	Esfenvalerate	127	145	P/P	27 - 176
2451647	Ethalfuralin	74.8	69.8	P/P	49 - 100
2451647	Fenpropathrin	80.6	87.7	P/P	34 - 117
2451647	Gamma-BHC	65.4	66.1	P/P	59 - 129
2451647	Gamma-Chlordane	51.7	54.8	P/P	33 - 107
2451647	Heptachlor	62.9	61.4	P/P	37 - 94.0
2451647	Heptachlor Epoxide	72.8	68.4	P/P	38 - 118
2451647	Hexachlorobenzene	47.3	39.7	P/P	35 - 97.0
2451647	Kepone	95.9	107	P/P	10 - 221
2451647	Lambda-Cyhalothrin	84.3	91.2	P/P	23 - 190
2451647	Methoprene	86.6	77.9	P/P	21 - 109
2451647	Methoxychlor	65.5	71.7	P/P	46 - 118
2451647	MGK-264	63.5	65.4	P/P	39 - 122
2451647	Mirex	50.8	54.0	P/P	25 - 90.0
2451647	Oxychlordane	60.5	61.4	P/P	42 - 100
2451647	Permethrin	84.7	83.1	P/P	33 - 181
2451647	Phenothrin	64.4	59.0	P/P	12 - 125
2451647	Piperonyl Butoxide	55.9	46.7	P/P	10 - 178
2451647	Prallethrin	70.8	90.3	P/P	24 - 122
2451647	Tau-Fluvalinate	129	138	P/P	13 - 151
2451647	Tetramethrin	76.1	122	P/P	16 - 172
2451647	Trans-Nonachlor	55.2	56.3	P/P	39 - 100
2451647	Triclosan Methyl	76.3	72.1	P/P	43 - 110
2451647	Trifluralin	56.3	49.5	P/P	45 - 94.0

Reference Method: EPA 8276
Batch ID: P437988

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
---------------	-----------	---------	---------	-----------	----------------

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8276
Batch ID: P437988

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2451509	Chlordane	89.8	82.8	P/P	43 - 123
2451509	Toxaphene	113	111	P/P	27 - 156

Reference Method: SM 4500-F- C-2011
Batch ID: P438029

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2450882	Fluoride	102	104	P/P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P437994

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2451730	Organic Carbon	85.1	88.5	P/P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P438145

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2451619	Organic Carbon	95.3	95.6	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P437808

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2451672	Color (true)	0.207	Sample	P	0 - 20

Reference Method: DEP SOP: NU-094-1
Batch ID: P437840

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2451706	Color (true)	0.933	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P437852

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2451498	Turbidity	0.0	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P438062

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2451742	Calcium	2.47	Spike	P	0 - 20
2451742	Iron	1.27	Spike	P	0 - 20
2451742	Magnesium	2.25	Spike	P	0 - 20
2451742	Potassium	3.36	Spike	P	0 - 20
2451742	Sodium	3.52	Spike	P	0 - 20
2451742	Strontium	1.64	Spike	P	0 - 20
2451742	Tin	3.37	Spike	P	0 - 20
2451742	Titanium	6.60	Spike	P	0 - 20
2451742	Vanadium	2.18	Spike	P	0 - 20
2451742	Zinc	1.91	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P438062

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2451742	Aluminum	1.84	Spike	P	0 - 20
2451742	Antimony	0.869	Spike	P	0 - 20
2451742	Arsenic	1.44	Spike	P	0 - 20
2451742	Barium	1.52	Spike	P	0 - 20
2451742	Beryllium	0.326	Spike	P	0 - 20
2451742	Boron	2.49	Spike	P	0 - 20
2451742	Cadmium	0.734	Spike	P	0 - 20
2451742	Chromium	0.498	Spike	P	0 - 20
2451742	Cobalt	0.883	Spike	P	0 - 20
2451742	Copper	0.204	Spike	P	0 - 20
2451742	Lead	1.35	Spike	P	0 - 20
2451742	Manganese	0.404	Spike	P	0 - 20
2451742	Molybdenum	1.83	Spike	P	0 - 20
2451742	Nickel	1.53	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P438062

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2451742	Selenium	1.03	Spike	P	0 - 20
2451742	Silver	1.70	Spike	P	0 - 20
2451742	Thallium	0.909	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438316

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2451672	Chloride	0.161	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438319

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2451672	Sulfate	0.316	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438358

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2452492	Chloride	2.72	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438429

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2451499	Ammonia-N	1.72	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438431

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2451675	Ammonia-N	0.549	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437856

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2451405	Kjeldahl Nitrogen	3.42	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P438035

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
--------------------------	-----------	-----------	-------------------	-----------	----------------

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P438035

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2451677	Kjeldahl Nitrogen	8.86	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438097

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2451634	NO2NO3-N	1.61	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438184

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2451500	NO2NO3-N	1.29	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P438041

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2451499	Total-P	0.713	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P438206

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2451809	Total-P	0.206	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P437988

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2451509	PCB-1016	3.13	Spike	P	0 - 25
2451509	PCB-1260	0.829	Spike	P	0 - 30
2451647	Aldrin	9.11	Spike	P	0 - 41
2451647	Alpha-BHC	15.5	Spike	P	0 - 25
2451647	Alpha-Chlordane	13.5	Spike	P	0 - 32
2451647	Beta-BHC	2.62	Spike	P	0 - 33
2451647	Beta-Cyfluthrin	7.08	Spike	P	0 - 43
2451647	Bifenthrin	6.74	Spike	P	0 - 52
2451647	Carbophenothion	3.49	Spike	P	0 - 49
2451647	Chlorothalonil	0.513	Spike	P	0 - 82
2451647	Cis-Nonachlor	23.2	Spike	P	0 - 33
2451647	Cypermethrin	11.0	Spike	P	0 - 51
2451647	Dacthal	3.72	Spike	P	0 - 27
2451647	DDD-p,p'	20.6	Spike	P	0 - 39
2451647	DDE-p,p'	11.8	Spike	P	0 - 31
2451647	DDT-p,p'	1.37	Spike	P	0 - 29

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P437988

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2451647	Delta-BHC	6.42	Spike	P	0 - 35
2451647	Deltamethrin	3.04	Spike	P	0 - 100
2451647	Dichlobenil	5.71	Spike	P	0 - 40
2451647	Dicofol	7.76	Spike	P	0 - 37
2451647	Dieldrin	12.3	Spike	P	0 - 27
2451647	Endosulfan I	1.23	Spike	P	0 - 23
2451647	Endosulfan II	1.40	Spike	P	0 - 34
2451647	Endosulfan Sulfate	8.82	Spike	P	0 - 36
2451647	Endrin	15.0	Spike	P	0 - 45
2451647	Endrin Aldehyde	18.4	Spike	P	0 - 76
2451647	Endrin Ketone	13.3	Spike	P	0 - 43
2451647	Esfenvalerate	13.2	Spike	P	0 - 51
2451647	Ethalfuralin	7.03	Spike	P	0 - 22
2451647	Fenpropathrin	7.59	Spike	P	0 - 49
2451647	Gamma-BHC	1.08	Spike	P	0 - 28
2451647	Gamma-Chlordane	5.86	Spike	P	0 - 40
2451647	Heptachlor	2.32	Spike	P	0 - 29
2451647	Heptachlor Epoxide	6.19	Spike	P	0 - 33
2451647	Hexachlorobenzene	17.6	Spike	P	0 - 36
2451647	Kepone	10.7	Spike	P	0 - 85
2451647	Lambda-Cyhalothrin	7.95	Spike	P	0 - 55
2451647	Methoprene	10.6	Spike	P	0 - 53
2451647	Methoxychlor	9.12	Spike	P	0 - 50
2451647	MGK-264	2.91	Spike	P	0 - 43
2451647	Mirex	6.00	Spike	P	0 - 40
2451647	Oxychlordane	1.53	Spike	P	0 - 31
2451647	Permethrin	1.99	Spike	P	0 - 50
2451647	Phenothrin	8.82	Spike	P	0 - 58
2451647	Piperonyl Butoxide	14.5	Spike	P	0 - 100
2451647	Prallethrin	24.2	Spike	P	0 - 39
2451647	Tau-Fluvalinate	6.49	Spike	P	0 - 54
2451647	Tetramethrin	46.6	Spike	P	0 - 51
2451647	Trans-Nonachlor	2.04	Spike	P	0 - 39
2451647	Triclosan Methyl	5.61	Spike	P	0 - 31
2451647	Trifluralin	12.7	Spike	P	0 - 22

Reference Method: EPA 8276
Batch ID: P437988

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2451509	Chlordane	8.07	Spike	P	0 - 28
2451509	Toxaphene	2.01	Spike	P	0 - 27

Reference Method: SM 2320 B-2011
Batch ID: P438014

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2451614	Total Alkalinity	1.72	Sample	P	0 - 3.9

Quality Assurance Report Precision

Reference Method: SM 2320 B-2011
Batch ID: P438025

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450882	Total Alkalinity	0.0647	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P438344

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2451565	TDS	2.12	Sample	P	0 - 10

Reference Method: SM 2540 C-2015
Batch ID: P438345

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2451786	TDS	2.74	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P438029

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450882	Fluoride	1.40	Spike	P	0 - 1.9

Reference Method: SM 4500-F- C-2011
Batch ID: P438332

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2452866	Fluoride	0.986	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2011
Batch ID: P437994

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2451730	Organic Carbon	3.20	Spike	P	0 - 20

Reference Method: SM 5310 B-2011
Batch ID: P438145

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2451619	Organic Carbon	0.262	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2451713

Field Sample ID: G5SE0079

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	86.3	P	37 - 129
EPA 8270E	Decachlorobiphenyl	85.0	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	51.0	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	63.5	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	47.6	P	28 - 102
EPA 8276	PCNB	108	P	49 - 115

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1
Run ID: A122732
Included Lab Sample IDs: 2451704

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.6	103	P/P	90 - 110

Reference Method: DEP SOP: NU-094-1
Run ID: A122745
Included Lab Sample IDs: 2451706

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	101	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A122747
Included Lab Sample IDs: 2451704, 2451706

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A122798
Included Lab Sample IDs: 2451705

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	104	108	P/P	90 - 110

Reference Method: SM 5310 B-2011
Run ID: A122810
Included Lab Sample IDs: 2451705

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	94.8	94.0	P/P	90 - 110

Reference Method: SM 2320 B-2011
Run ID: A122815
Included Lab Sample IDs: 2451706

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.8	96.8	P/P	90 - 110

Reference Method: SM 2320 B-2011
Run ID: A122818
Included Lab Sample IDs: 2451704

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	97.3	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Run ID: A122818
Included Lab Sample IDs: 2451704

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A122849

Included Lab Sample IDs: 2451707

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A122865

Included Lab Sample IDs: 2451705

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.2	102	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A122873

Included Lab Sample IDs: 2451707

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.4	95.8	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A122877

Included Lab Sample IDs: 2451714

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	99.8	97.4	P/P	90 - 110
Iron	97.7	93.9	P/P	90 - 110
Magnesium	97.1	93.7	P/P	90 - 110
Potassium	97.5	95.1	P/P	90 - 110
Sodium	98.9	96.0	P/P	90 - 110
Strontium	97.5	97.3	P/P	90 - 110
Tin	98.4	94.3	P/P	90 - 110
Titanium	98.8	96.1	P/P	90 - 110
Vanadium	99.4	96.4	P/P	90 - 110
Zinc	101	96.7	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A122880

Included Lab Sample IDs: 2451714

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	107	105	P/P	90 - 110
Antimony	103	104	P/P	90 - 110
Arsenic	106	106	P/P	90 - 110
Barium	104	104	P/P	90 - 110
Beryllium	104	103	P/P	90 - 110
Boron	103	102	P/P	90 - 110
Cadmium	103	103	P/P	90 - 110
Chromium	104	104	P/P	90 - 110
Cobalt	103	103	P/P	90 - 110
Copper	104	103	P/P	90 - 110
Lead	99.5	99.0	P/P	90 - 110
Manganese	102	102	P/P	90 - 110
Molybdenum	103	103	P/P	90 - 110
Nickel	104	105	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A122880

Included Lab Sample IDs: 2451714

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Selenium	104	104	P/P	90 - 110
Silver	103	103	P/P	90 - 110
Thallium	102	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A122891

Included Lab Sample IDs: 2451705

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A122899

Included Lab Sample IDs: 2451707

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.0	95.3	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A122916

Included Lab Sample IDs: 2451707

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.3	98.2	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A122949

Included Lab Sample IDs: 2451704, 2451706

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	103	103	P/P	90 - 110
Chloride	97.1	101	P/P	90 - 110
Sulfate	102	103	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A122950

Included Lab Sample IDs: 2451706

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

Reference Method: EPA 8270E

Run ID: A122979

Included Lab Sample IDs: 2451713

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	102		P	80 - 120
PCB-1260	102		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A122988

Included Lab Sample IDs: 2451705, 2451707

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.6	98.7	P/P	90 - 110
Ammonia-N	99.0	98.7	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A123010

Included Lab Sample IDs: 2451713

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	110		P	80 - 120
Alpha-BHC	94.9		P	80 - 120
Alpha-Chlordane	81.7		P	80 - 120
Beta-BHC	84.1		P	80 - 120
Beta-Cyfluthrin	89.2		P	80 - 120
Bifenthrin	88.8		P	80 - 120
Carbophenothion	92.1		P	80 - 120
Chlorothalonil	97.2		P	80 - 120
Cis-Nonachlor	109		P	80 - 120
Cypermethrin	81.2		P	80 - 120
Dacthal	89.2		P	80 - 120
DDD-p,p'	97.4		P	80 - 120
DDE-p,p'	85.0		P	80 - 120
Delta-BHC	99.3		P	80 - 120
Deltamethrin	118		P	80 - 120
Dichlobenil	92.8		P	80 - 120
Dicofol	93.0		P	80 - 120
Dieldrin	88.6		P	80 - 120
Endosulfan I	97.6		P	80 - 120
Endosulfan II	105		P	80 - 120
Endosulfan Sulfate	114		P	80 - 120
Endrin	94.8		P	80 - 120
Endrin Aldehyde	164*		F	80 - 120
Endrin Ketone	90.6		P	80 - 120
Esfenvalerate	103		P	80 - 120
Ethalfuralin	107		P	80 - 120
Fenpropathrin	90.7		P	80 - 120
Gamma-BHC	83.0		P	80 - 120
Gamma-Chlordane	86.1		P	80 - 120
Heptachlor	94.3		P	80 - 120
Heptachlor Epoxide	103		P	80 - 120
Hexachlorobenzene	85.0		P	80 - 120
Kepone	99.0		P	80 - 120
Lambda-Cyhalothrin	98.9		P	80 - 120
Methoprene	81.9		P	80 - 120
Methoxychlor	86.9		P	80 - 120
MGK-264	80.1		P	80 - 120
Mirex	119		P	80 - 120
Oxychlordane	96.8		P	80 - 120
Permethrin	94.7		P	80 - 120
Phenothrin	90.6		P	80 - 120
Piperonyl Butoxide	114		P	80 - 120
Prallethrin	84.4		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A123010
Included Lab Sample IDs: 2451713

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Tau-Fluvalinate	109		P	80 - 120
Tetramethrin	110		P	80 - 120
Trans-Nonachlor	86.0		P	80 - 120
Triclosan Methyl	86.2		P	80 - 120
Trifluralin	99.9		P	80 - 120

Reference Method: EPA 8270E
Run ID: A123021
Included Lab Sample IDs: 2451713

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
DDT-p,p'	107		P	80 - 120

Reference Method: EPA 8276
Run ID: A123147
Included Lab Sample IDs: 2451713

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	97.0		P	80 - 120
Toxaphene	109		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	MS
						SMP	
DEP SOP: NU-094-1	Color (true)	103				0.207	
	Color (true)	101				0.933	
EPA 180.1 Rev. 2.0	Turbidity	104				0.0	
EPA 200.7 Rev. 4.4	Calcium	101					2.47
	Iron	99.5	90.5	91.8			1.27
	Magnesium	99.3					2.25
	Potassium	97.9					3.36
	Sodium	101					3.52
	Strontium	97.5					1.64
	Tin	94.4	76.5	79.1			3.37
	Titanium	95.5	90.7	97.8			6.60
	Vanadium	96.5	97.7	99.9			2.18
	Zinc	94.8	93.0	94.8			1.91
EPA 200.8 Rev. 5.4	Aluminum	102	110	113			1.84
	Antimony	105	104	104			0.869
	Arsenic	103	116	115			1.44
	Barium	105	107	105			1.52
	Beryllium	94.1	97.4	97.7			0.326
	Boron	104					2.49
	Cadmium	103	96.5	97.2			0.734
	Chromium	104	97.9	98.4			0.498
	Cobalt	102	94.0	93.2			0.883
	Copper	100	88.3	88.5			0.204
	Lead	98.4	107	105			1.35
	Manganese	102	89.5	89.0			0.404
	Molybdenum	103	120	117			1.83
	Nickel	101	96.9	95.4			1.53
	Selenium	105	105	104			1.03
	Silver	108	99.8	98.1			1.70
	Thallium	104	113	114			0.909
EPA 300.0 Rev. 2.1	Chloride	103	101	105		0.161	
	Chloride	99.3	101	106		2.72	
	Sulfate	104	101	106		0.316	
EPA 350.1 Rev. 2.0	Ammonia-N	92.2	103	106			1.72
	Ammonia-N	95.2	101	102			0.549
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	107	105	101			3.42
	Kjeldahl Nitrogen	97.7	106	92.4			8.86
EPA 353.2 Rev. 2.0	NO2NO3-N	99.0	99.3	97.3			1.61
	NO2NO3-N	100	99.4	101			1.29
EPA 365.1 Rev. 2.0	Total-P	104	98.0	97.3			0.713
	Total-P	101	101	102			0.206
EPA 8270E	Aldrin	41.8	65.5	59.8			9.11
	Alpha-BHC	61.4	75.6	64.7			15.5
	Alpha-Chlordane	58.3	50.5	57.9			13.5
	Beta-BHC	77.8	69.4	71.2			2.62
	Beta-Cyfluthrin	54.9	79.6	74.1			7.08
	Bifenthrin	43.4	73.3	68.5			6.74
	Carbophenothion	40.0	61.2	59.1			3.49
	Chlorothalonil	90.3	104	104			0.513
	Cis-Nonachlor	71.3	57.4	72.4			23.2
	Cypermethrin	60.2	81.3	72.8			11.0
	Dacthal	67.4	67.0	64.6			3.72
	DDD-p,p'	51.5	39.2	48.2			20.6
	DDE-p,p'	57.0	55.1	62.0			11.8

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision SMP	MS
EPA 8270E	DDT-p,p'	60.4	75.8	76.8			1.37
	Delta-BHC	79.7	89.0	83.4			6.42
	Deltamethrin	99.0	161	157			3.04
	Dichlobenil	59.6	41.4	43.9			5.71
	Dicofol	73.5	76.4	82.6			7.76
	Dieldrin	61.1	53.7	60.7			12.3
	Endosulfan I	76.6	77.9	78.9			1.23
	Endosulfan II	79.0	86.0	87.2			1.40
	Endosulfan Sulfate	75.5	74.9	81.8			8.82
	Endrin	68.4	53.9	62.7			15.0
	Endrin Aldehyde	70.1	34.4	41.4			18.4
	Endrin Ketone	37.0	30.7	35.1			13.3
	Esfenvalerate	71.8	145	127			13.2
	Ethalfuralin	73.3	69.8	74.8			7.03
	Fenpropathrin	71.8	87.7	80.6			7.59
	Gamma-BHC	67.3	66.1	65.4			1.08
	Gamma-Chlordane	50.2	54.8	51.7			5.86
	Heptachlor	56.7	61.4	62.9			2.32
	Heptachlor Epoxide	72.0	68.4	72.8			6.19
	Hexachlorobenzene	51.2	39.7	47.3			17.6
	Kepone	91.6	107	95.9			10.7
	Lambda-Cyhalothrin	50.8	91.2	84.3			7.95
	Methoprene	45.3	86.6	77.9			10.6
	Methoxychlor	69.2	65.5	71.7			9.12
	MGK-264	54.9	63.5	65.4			2.91
	Mirex	33.3	50.8	54.0			6.00
	Oxychlordane	77.6	60.5	61.4			1.53
	PCB-1016	80.8	103	99.4			3.13
	PCB-1260	82.3	106	105			0.829
	Permethrin	57.9	84.7	83.1			1.99
	Phenothrin	38.8	64.4	59.0			8.82
	Piperonyl Butoxide	54.2	55.9	46.7			14.5
	Prallethrin	53.5	70.8	90.3			24.2
	Tau-Fluvalinate	72.1	129	138			6.49
	Tetramethrin	44.3	76.1	122			46.6
	Trans-Nonachlor	52.3	55.2	56.3			2.04
	Triclosan Methyl	80.6	76.3	72.1			5.61
	Trifluralin	46.3	56.3	49.5			12.7
EPA 8276	Chlordane	63.1	89.8	82.8			8.07
	Toxaphene	73.8	113	111			2.01
SM 2320 B-2011	Total Alkalinity	100				1.72	
	Total Alkalinity	101				0.0647	
SM 2540 C-2015	TDS	94.0				2.12	
	TDS	96.8				2.74	
SM 2540 D-2015	TSS	107					
	TSS	105					
SM 4500-F- C-2011	Fluoride	102	102	104			1.40
	Fluoride	101					0.986
SM 5310 B-2011	Organic Carbon	95.7	85.1	88.5			3.20
	Organic Carbon	94.1	95.3	95.6			0.262

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2451704, 2451706
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2451704, 2451706
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2451714
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2451714
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2451704, 2451706
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2451704, 2451706
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2451705, 2451707
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2451705, 2451707
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2451705, 2451707
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2451705, 2451707
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2451713
EPA 8270E	PCBs in water matrices by GC/MS/MS	2451713
EPA 8276	Chlordane and Toxaphene in water matrices by GC/MS with Negative Chemical Ionization	2451713
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2451704, 2451706
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2451714
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2451704, 2451706
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2451704, 2451706
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2451704, 2451706
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2451705, 2451707

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: NU-094-1	11/15/2023			11/15/2023 13:27	Samantha L Bates	2451704
	11/15/2023			11/15/2023 14:46	Samantha L Bates	2451706
EPA 180.1 Rev. 2.0	11/15/2023			11/15/2023 14:16	Khloe J Berg	2451704
	11/15/2023			11/15/2023 14:17	Khloe J Berg	2451706
EPA 200.7 Rev. 4.4	11/15/2023	11/20/2023 12:25	George D Taylor	11/21/2023 20:39	Samatha Luckman	2451714
	11/15/2023	11/20/2023 12:25	George D Taylor	11/21/2023 20:49	Samatha Luckman	2451714
EPA 200.8 Rev. 5.4	11/15/2023	11/20/2023 12:25	George D Taylor	11/21/2023 16:54	Emily M Philpot	2451714
	11/15/2023	11/20/2023 12:25	George D Taylor	11/21/2023 18:57	Emily M Philpot	2451714
EPA 300.0 Rev. 2.1	11/15/2023			11/27/2023 23:14	James L Waggeberby	2451704
	11/15/2023			11/27/2023 23:29	James L Waggeberby	2451706
	11/15/2023			11/29/2023 19:13	James L Waggeberby	2451704
EPA 350.1 Rev. 2.0	11/15/2023			12/01/2023 12:39	Khloe J Berg	2451705
	11/15/2023			12/01/2023 13:34	Khloe J Berg	2451707
EPA 351.2 Rev. 2.0	11/15/2023	11/16/2023 10:44	Simonne.V. Calhoun	11/17/2023 13:31	Ping Hua	2451705
	11/15/2023	11/20/2023 21:15	Simonne.V. Calhoun	11/27/2023 16:26	Ping Hua	2451707
EPA 353.2 Rev. 2.0	11/15/2023			11/20/2023 12:24	Anna M. Plaviak	2451707
	11/15/2023			11/27/2023 13:13	Fadila Guebre	2451705
EPA 365.1 Rev. 2.0	11/15/2023	11/20/2023 12:58	Adam P Silver	11/21/2023 12:28	Simonne.V. Calhoun	2451705
	11/15/2023	11/28/2023 10:59	Adam P Silver	11/28/2023 13:57	James L Waggeberby	2451707
EPA 8270E	11/15/2023	11/20/2023 08:30	Rasheda Ghaffari	12/01/2023 00:47	Lipi Saha	2451713
	11/15/2023	11/20/2023 08:30	Rasheda Ghaffari	12/01/2023 22:27	Vandana T. Nagar	2451713
	11/15/2023	11/20/2023 08:30	Rasheda Ghaffari	12/04/2023 23:26	Vandana T. Nagar	2451713
EPA 8276	11/15/2023	11/20/2023 08:30	Rasheda Ghaffari	12/10/2023 13:29	Arthur Maknenko	2451713
SM 2320 B-2011	11/15/2023			11/17/2023 07:11	Dale L. Simmons	2451704
	11/15/2023			11/18/2023 16:25	Adam P Silver	2451706
SM 2340 B-2011	11/15/2023			11/21/2023 20:49	Samatha Luckman	2451714
SM 2540 C-2015	11/15/2023			11/20/2023 15:30	Yijie Li	2451704, 2451706
SM 2540 D-2015	11/15/2023			11/20/2023 15:30	Yijie Li	2451704, 2451706
SM 4500-F- C-2011	11/15/2023			11/17/2023 05:03	Dale L. Simmons	2451704
	11/15/2023			11/29/2023 22:01	Chandler E Cox	2451706
SM 5310 B-2011	11/15/2023			11/18/2023 04:29	Kenneth H Lee	2451705
	11/15/2023			11/22/2023 00:00	Kenneth H Lee	2451707