

Chemical Analysis Report

SW-DIST-2023-11-14-01

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

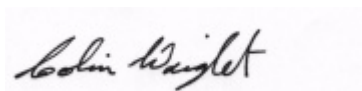
Event Description: **Run 9**
Request ID: **RQ-2023-11-13-49**
Customer: **SW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
13051 N. Telecom Parkway
Temple Terrace, FL 33637-0926
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Certified by: Colin Wright, Program Administrator

Date Certified: 14-DEC-2023 13:46

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light blue 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: MULLET CREEK TIDAL AT PARK

Collection Date/Time: 11/13/2023 09:50

Field ID: G1SW0095

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2450943	EPA 8270E	Aldrin	0.66	U	ng/L	P437730	
		Alpha-BHC	0.10	U	ng/L	P437730	
		Alpha-Chlordane	0.20	U	ng/L	P437730	MS, RPD
		PCB-1016	2.0	UJ	ng/L	P437730	RPD
		Beta-BHC	0.10	U	ng/L	P437730	
		PCB-1221	2.0	U	ng/L	P437730	
		Beta-Cyfluthrin	1.3	U	ng/L	P437730	
		PCB-1232	2.0	U	ng/L	P437730	
		Bifenthrin	0.51	U	ng/L	P437730	
		PCB-1242	2.0	U	ng/L	P437730	
		Carbophenothion	0.91	U	ng/L	P437730	
		PCB-1248	2.0	U	ng/L	P437730	
		Chlorothalonil	3.6	U	ng/L	P437730	
		PCB-1254	2.0	U	ng/L	P437730	
		Cis-Nonachlor	0.20	U	ng/L	P437730	
		PCB-1260	2.0	UJ	ng/L	P437730	RPD
		Cypermethrin	1.5	U	ng/L	P437730	
		Dacthal	0.15	U	ng/L	P437730	
		DDD-p,p'	0.25	U	ng/L	P437730	
		DDE-p,p'	0.20	U	ng/L	P437730	MS
		DDT-p,p'	0.81	U	ng/L	P437730	
		Delta-BHC	0.40	U	ng/L	P437730	
		Deltamethrin	1.3	U	ng/L	P437730	
		Dichlobenil	0.25	U	ng/L	P437730	
		Dicofol	1.3	U	ng/L	P437730	
		Dieldrin	0.40	U	ng/L	P437730	
		Endosulfan I	0.40	U	ng/L	P437730	
		Endosulfan II	0.91	U	ng/L	P437730	
		Endosulfan Sulfate	0.30	U	ng/L	P437730	
		Endrin	0.91	U	ng/L	P437730	
		Endrin Aldehyde	0.76	U	ng/L	P437730	
		Endrin Ketone	0.40	U	ng/L	P437730	
		Esfenvalerate	0.76	U	ng/L	P437730	
		Ethalfuralin	0.15	U	ng/L	P437730	MS
		Fenpropathrin	0.25	U	ng/L	P437730	
		Gamma-BHC	0.13	U	ng/L	P437730	
		Gamma-Chlordane	0.20	I	ng/L	P437730	MS
		Heptachlor	0.20	U	ng/L	P437730	
		Heptachlor Epoxide	0.25	U	ng/L	P437730	MS
		Hexachlorobenzene**	1.0	U	ng/L	P437730	
		Kepone	14	U	ng/L	P437730	
		Lambda-Cyhalothrin	0.76	U	ng/L	P437730	
		Methoprene	0.76	U	ng/L	P437730	
		Methoxychlor	0.30	U	ng/L	P437730	

Field ID: G1SW0095

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2450943	EPA 8270E	MGK-264	0.20	U	ng/L	P437730	MS
		Mirex	0.35	U	ng/L	P437730	
		Oxychlordane	0.30	U	ng/L	P437730	
		Permethrin	1.6	U	ng/L	P437730	
		Phenothrin	0.91	U	ng/L	P437730	MS
		Piperonyl Butoxide	0.25	I	ng/L	P437730	
		Prallethrin	2.0	U	ng/L	P437730	
		Tau-Fluvalinate	0.25	U	ng/L	P437730	MS
		Tetramethrin	0.76	U	ng/L	P437730	MS
		Trans-Nonachlor	0.20	U	ng/L	P437730	MS
		Triclosan Methyl	0.15	U	ng/L	P437730	
		Trifluralin	0.20	U	ng/L	P437730	MS
		Chlordane	2.0	UJ	ng/L	P437730	RPD
		Toxaphene	15	U	ng/L	P437730	
2450955	EPA 8321B	Acesulfame K	0.10	U	ug/L	P437618	
		2,4-D	0.0032	I	ug/L	P437727	
		AMPA	1.0	U	ug/L	P437618	
		2,4,5-T	0.0040	U	ug/L	P437727	
		Acetaminophen	0.0080	U	ug/L	P437727	
		Endothall	0.25	U	ug/L	P437618	
		Acetamiprid	0.0020	U	ug/L	P437727	
		Glufosinate	1.0	U	ug/L	P437618	
		Glyphosate	1.0	U	ug/L	P437618	
		Afidopyropen	0.0020	U	ug/L	P437727	
		Sucralose	1.4		ug/L	P437618	
		Bentazon	0.038		ug/L	P437727	
		Benzovindiflupyr	0.0020	U	ug/L	P437727	
		Carbamazepine	8.0E-04	U	ug/L	P437727	
		Clothianidin	0.0020	U	ug/L	P437727	
		Dinotefuran	0.0020	U	ug/L	P437727	
		Diuron	0.0020	U	ug/L	P437727	
		Fenuron	0.032	U	ug/L	P437727	
		Fluridone	0.024		ug/L	P437727	
		Imazapyr	0.080		ug/L	P437727	
		Hydrocodone	0.0020	U	ug/L	P437727	
		Ibuprofen	0.080	U	ug/L	P437727	
		Imidacloprid	0.025		ug/L	P437727	
		Linuron	0.0040	U	ug/L	P437727	
		Mandestrobin	0.0020	U	ug/L	P437727	
		MCPP	0.0020	U	ug/L	P437727	
		Naproxen	0.0080	U	ug/L	P437727	
		Primidone	0.0065	I	ug/L	P437727	
		Pyraclostrobin	0.0020	U	ug/L	P437727	
		Silvex	0.0040	U	ug/L	P437727	
		Thiamethoxam	0.0020	U	ug/L	P437727	

Field ID: G1SW0095

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2450955	EPA 8321B	Tolfenpyrad	0.0020	U	ug/L	P437727	
		Triclopyr	0.0040	U	ug/L	P437727	
2450956	EPA 200.7 Rev. 4.4	Calcium	230		mg/L	P438062	
		Iron	360	I	ug/L	P438062	
		Magnesium	602		mg/L	P438062	
		Potassium	180		mg/L	P438062	
		Sodium	4.89E+03		mg/L	P438062	
		Strontium	3.62E+03		ug/L	P438062	
		Tin	60	U	ug/L	P438062	
		Titanium	4.5	I	ug/L	P438062	
		Vanadium	6.0	U	ug/L	P438062	
		Zinc	15	U	ug/L	P438062	
	EPA 200.8 Rev. 5.4	Aluminum	239		ug/L	P438062	
		Antimony	0.24	I	ug/L	P438062	
		Arsenic	2.48		ug/L	P438062	
		Barium	22.7		ug/L	P438062	
		Beryllium	0.040	U	ug/L	P438062	
		Boron	2.06E+03		ug/L	P438062	
		Cadmium	0.080	U	ug/L	P438062	
		Chromium	4.0	U	ug/L	P438062	
		Cobalt	0.51		ug/L	P438062	
		Copper	1.6	U	ug/L	P438062	
		Lead	0.80	U	ug/L	P438062	
		Manganese	16.7		ug/L	P438062	
		Molybdenum	7.6		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	
	SM 2340 B-2011	Hardness	3.05E+03		mg/L	P438062	

Ref. Method and Comment:

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

EPA 8276: Refer to the Lab Analysis Report for an explanation of QC Codes.

EPA 8321B: Some MDLs are elevated due to required dilution of sample matrix.

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: PP DITCH1 AT 71ST ST

Collection Date/Time: 11/13/2023 10:40

Field ID: G5SW0134

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2450944	EPA 8270E	Aldrin	0.65	U	ng/L	P437730	
		Alpha-BHC	0.52		ng/L	P437730	
		Alpha-Chlordane	0.20	U	ng/L	P437730	MS, RPD
		PCB-1016	2.0	U	ng/L	P437730	RPD
		Beta-BHC	0.10	U	ng/L	P437730	
		PCB-1221	2.0	U	ng/L	P437730	
		Beta-Cyfluthrin	1.3	U	ng/L	P437730	
		PCB-1232	2.0	U	ng/L	P437730	
		Bifenthrin	0.50	U	ng/L	P437730	
		PCB-1242	2.0	U	ng/L	P437730	
		Carbophenothion	0.91	U	ng/L	P437730	
		PCB-1248	2.0	U	ng/L	P437730	
		Chlorothalonil	3.6	U	ng/L	P437730	
		PCB-1254	2.0	U	ng/L	P437730	
		Cis-Nonachlor	0.20	U	ng/L	P437730	
		PCB-1260	2.0	U	ng/L	P437730	RPD
		Cypermethrin	1.5	U	ng/L	P437730	
		Dacthal	0.15	U	ng/L	P437730	
		DDD-p,p'	0.25	U	ng/L	P437730	
		DDE-p,p'	0.20	U	ng/L	P437730	MS
		DDT-p,p'	0.80	U	ng/L	P437730	
		Delta-BHC	0.40	U	ng/L	P437730	
		Deltamethrin	1.3	U	ng/L	P437730	
		Dichlobenil	0.40	I	ng/L	P437730	
		Dicofol	1.3	U	ng/L	P437730	
		Dieldrin	0.40	U	ng/L	P437730	
		Endosulfan I	0.40	U	ng/L	P437730	
		Endosulfan II	0.91	U	ng/L	P437730	
		Endosulfan Sulfate	1.2	I	ng/L	P437730	
		Endrin	0.91	U	ng/L	P437730	
		Endrin Aldehyde	0.75	U	ng/L	P437730	
		Endrin Ketone	0.40	U	ng/L	P437730	
		Esfenvalerate	0.75	U	ng/L	P437730	
		Ethalfuralin	0.15	U	ng/L	P437730	MS
		Fenpropathrin	0.25	U	ng/L	P437730	
		Gamma-BHC	0.13	U	ng/L	P437730	
		Gamma-Chlordane	0.20	U	ng/L	P437730	MS
		Heptachlor	0.20	U	ng/L	P437730	
		Heptachlor Epoxide	0.25	U	ng/L	P437730	MS
		Hexachlorobenzene**	1.0	U	ng/L	P437730	
		Kepone	14	U	ng/L	P437730	
		Lambda-Cyhalothrin	0.75	U	ng/L	P437730	
		Methoprene	0.75	U	ng/L	P437730	
		Methoxychlor	0.30	U	ng/L	P437730	

Field ID: G5SW0134

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2450944	EPA 8270E	MGK-264	0.20	U	ng/L	P437730	MS
		Mirex	0.35	U	ng/L	P437730	
		Oxychlordane	0.30	U	ng/L	P437730	
		Permethrin	1.6	U	ng/L	P437730	
		Phenothrin	0.91	U	ng/L	P437730	MS
		Piperonyl Butoxide	1.7		ng/L	P437730	
		Prallethrin	2.0	U	ng/L	P437730	
		Tau-Fluvalinate	0.25	U	ng/L	P437730	MS
		Tetramethrin	0.75	U	ng/L	P437730	MS
		Trans-Nonachlor	0.20	U	ng/L	P437730	MS
		Triclosan Methyl	0.15	U	ng/L	P437730	
		Trifluralin	0.20	U	ng/L	P437730	MS
	EPA 8276	Chlordane	2.0	U	ng/L	P437730	RPD
		Toxaphene	15	U	ng/L	P437730	
2450957	EPA 200.7 Rev. 4.4	Calcium	254		mg/L	P438062	
		Iron	290	I	ug/L	P438062	
		Magnesium	598		mg/L	P438062	
		Potassium	177		mg/L	P438062	
		Sodium	5.01E+03		mg/L	P438062	
		Strontium	3.84E+03		ug/L	P438062	
		Tin	60	U	ug/L	P438062	
		Titanium	2.4	I	ug/L	P438062	
		Vanadium	6.0	U	ug/L	P438062	
		Zinc	15	U	ug/L	P438062	
	EPA 200.8 Rev. 5.4	Aluminum	47	I	ug/L	P438062	
		Antimony	0.28	I	ug/L	P438062	
		Arsenic	2.17		ug/L	P438062	
		Barium	49.3		ug/L	P438062	
		Beryllium	0.040	U	ug/L	P438062	
		Boron	2.01E+03		ug/L	P438062	
		Cadmium	0.080	U	ug/L	P438062	
		Chromium	4.0	U	ug/L	P438062	
		Cobalt	0.17	I	ug/L	P438062	
		Copper	1.6	U	ug/L	P438062	
		Lead	0.80	U	ug/L	P438062	
		Manganese	24.5		ug/L	P438062	
		Molybdenum	6.3		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	
	SM 2340 B-2011	Hardness	3.10E+03		mg/L	P438062	

Ref. Method and Comment:

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: ST JOE TIDAL AT 54TH AVE

Collection Date/Time: 11/13/2023 11:00

Field ID: G5SW0170

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2450901	DEP SOP: NU-094-1	Color (true)	31		PCU	P437750	
	EPA 180.1 Rev. 2.0	Turbidity	5.5		NTU	P437755	
	EPA 300.0 Rev. 2.1	Chloride	9.1E+03		mg Cl/L	P437999	
		Sulfate	1.3E+03		mg SO4/L	P438003	
	SM 2320 B-2011	Total Alkalinity	149		mg CaCO3/L	P438025	
	SM 2540 C-2015	TDS	1.56E+04		mg/L	P438248	
	SM 2540 D-2015	TSS	6	I	mg/L	P438204	
	SM 4500-F- C-2011	Fluoride	0.76		mg F/L	P438029	
2450903	EPA 350.1 Rev. 2.0	Ammonia-N	0.012		mg N/L	P438068	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.94		mg N/L	P437759	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.025		mg N/L	P438182	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P437863	
	SM 5310 B-2011	Organic Carbon	9.1		mg C/L	P437994	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

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

Sample Location: ST JOE TIDAL BY WESTCHESTER BLVD

Collection Date/Time: 11/13/2023 11:20

Field ID: G5SW0169

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2450902	DEP SOP: NU-094-1	Color (true)	20		PCU	P437750	
	EPA 180.1 Rev. 2.0	Turbidity	4.5		NTU	P437755	
	EPA 300.0 Rev. 2.1	Chloride	4.0E+03		mg Cl/L	P438147	
		Sulfate	580		mg SO4/L	P438151	
	SM 2320 B-2011	Total Alkalinity	182		mg CaCO3/L	P438025	
	SM 2540 C-2015	TDS	7.05E+03		mg/L	P438248	
	SM 2540 D-2015	TSS	5	I	mg/L	P438204	
	SM 4500-F- C-2011	Fluoride	0.66		mg F/L	P438167	
2450904	EPA 350.1 Rev. 2.0	Ammonia-N	0.061		mg N/L	P438068	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.91		mg N/L	P437759	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.52		mg N/L	P438186	
	EPA 365.1 Rev. 2.0	Total-P	0.32		mg P/L	P437863	
	SM 5310 B-2011	Organic Carbon	8.5		mg C/L	P437994	

Ref. Method and Comment:

SM 2540 C-2015: The reported result is consistent with the conductivity measured in the laboratory, 13230 umhos/cm.

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

Sample Location: GULF CREEK AT 9TH AVE NORTH

Collection Date/Time: 11/13/2023 11:50

Field ID: G5SW0191

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2450899	DEP SOP: NU-094-1	Color (true)	79		PCU	P437750	
	EPA 180.1 Rev. 2.0	Turbidity	1.0		NTU	P437755	
	EPA 300.0 Rev. 2.1	Chloride	170		mg Cl/L	P437999	
		Sulfate	35		mg SO4/L	P438003	
	SM 2320 B-2011	Total Alkalinity	201		mg CaCO3/L	P438013	
	SM 2540 C-2015	TDS	564		mg/L	P438247	
	SM 2540 D-2015	TSS	2	I	mg/L	P438201	
	SM 4500-F- C-2011	Fluoride	0.53		mg F/L	P438017	
2450900	EPA 350.1 Rev. 2.0	Ammonia-N	0.034		mg N/L	P438134	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.83		mg N/L	P437760	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P438095	
	EPA 365.1 Rev. 2.0	Total-P	0.82		mg P/L	P438045	
	SM 5310 B-2011	Organic Carbon	19		mg C/L	P437962	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

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

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P437750

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P437755

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437999

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438003

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438147

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438151

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438068

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438134

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437759

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437760

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438095

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438182

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438186

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P437863

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P438045

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

Reference Method: EPA 8270E
Batch ID: P437730

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P437730

Component	Result	Code	Units
Lambda-Cyhalothrin	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoxychlor	0.30	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.35	U	ng/L
Oxychlordane	0.30	U	ng/L
PCB-1016	2.0	U	ng/L
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: P437730

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

Reference Method: EPA 8321B

Batch ID: P437618

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
AMPA	0.10	U	ug/L
Endothall	0.25	U	ug/L
Glufosinate	0.10	U	ug/L
Glyphosate	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B

Batch ID: P437727

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P437727

Component	Result	Code	Units
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.032	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.080	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Silvex	0.0040	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2320 B-2011

Batch ID: P438013

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: P438247

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-2015

Batch ID: P438248

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015

Batch ID: P438201

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 D-2015
Batch ID: P438204

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P438017

Component	Result	Code	Units
Fluoride	0.025	U	mg F/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: P438167

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P437962

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

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

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: P437750

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: P437755

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	105		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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437999

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438003

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438147

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438151

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438068

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438134

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	94.4		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437759

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437760

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438095

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: P438182

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P438186

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

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P437863

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

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P438045

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

Reference Method: EPA 8270E

Batch ID: P437730

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	55.6		P	30 - 96.0
Alpha-BHC	75.2		P	70 - 109
Alpha-Chlordane	65.2		P	45 - 107
Beta-BHC	94.7		P	64 - 138
Beta-Cyfluthrin	103		P	17 - 141
Bifenthrin	70.6		P	10 - 113
Carbophenothion	67.1		P	24 - 91.0
Chlorothalonil	71.5		P	26 - 180
Cis-Nonachlor	67.3		P	37 - 102
Cypermethrin	85.6		P	20 - 133
Dacthal	87.2		P	69 - 114
DDD-p,p'	63.2		P	42 - 105
DDE-p,p'	71.6		P	42 - 106
DDT-p,p'	68.2		P	42 - 107
Delta-BHC	97.0		P	67 - 144
Deltamethrin	120		P	15 - 149
Dichlobenil	81.8		P	46 - 117
Dicofol	69.5		P	34 - 114
Dieldrin	65.5		P	50 - 108
Endosulfan I	72.4		P	55 - 104
Endosulfan II	89.0		P	51 - 111
Endosulfan Sulfate	79.7		P	56 - 121
Endrin	71.4		P	10 - 106
Endrin Aldehyde	70.3		P	34 - 114
Endrin Ketone	102		P	63 - 177
Esfenvalerate	98.2		P	29 - 143
Ethalfuralin	72.6		P	46 - 96.0
Fenpropathrin	86.0		P	28 - 115
Gamma-BHC	95.8		P	65 - 121
Gamma-Chlordane	69.4		P	39 - 103
Heptachlor	52.5		P	39 - 94.0
Heptachlor Epoxide	74.7		P	54 - 104
Hexachlorobenzene	55.1		P	36 - 100
Kepone	104		P	10 - 225

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P437730

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Lambda-Cyhalothrin	90.8		P	10 - 135
Methoprene	65.4		P	10 - 109
Methoxychlor	96.7		P	52 - 112
MGK-264	91.7		P	44 - 117
Mirex	56.6		P	20 - 90.0
Oxychlordane	58.2		P	44 - 102
PCB-1016	80.6		P	45 - 107
PCB-1260	83.2		P	40 - 118
Permethrin	88.5		P	18 - 135
Phenothrin	84.3		P	10 - 102
Piperonyl Butoxide	137		P	28 - 156
Prallethrin	97.1		P	28 - 113
Tau-Fluvalinate	87.8		P	10 - 123
Tetramethrin	125		P	18 - 158
Trans-Nonachlor	62.5		P	39 - 104
Triclosan Methyl	64.0		P	54 - 108
Trifluralin	73.9		P	46 - 97.0

Reference Method: EPA 8276

Batch ID: P437730

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	52.6		P	52 - 117
Toxaphene	49.5		P	44 - 125

Reference Method: EPA 8321B

Batch ID: P437618

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	111		P	40 - 150
AMPA	102		P	40 - 160
Endothall	113		P	40 - 160
Glufosinate	101		P	40 - 160
Glyphosate	101		P	40 - 160
Sucralose	101		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P437727

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	86.2		P	40 - 150
2,4,5-T	77.9		P	40 - 150
Acetaminophen	91.2		P	30 - 150
Acetamiprid	80.0		P	40 - 150
Afidopyropen	64.1		P	30 - 150
Bentazon	82.7		P	30 - 150
Benzovindiflupyr	81.2		P	40 - 150
Carbamazepine	74.5		P	40 - 150
Clothianidin	86.2		P	40 - 150
Dinotefuran	100		P	40 - 150
Diuron	73.5		P	40 - 150
Fenuron	85.5		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P437727

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluridone	88.7		P	40 - 150
Hydrocodone	87.6		P	40 - 150
Ibuprofen	72.9		P	40 - 150
Imazapyr	81.8		P	40 - 150
Imidacloprid	80.8		P	40 - 150
Linuron	81.9		P	40 - 150
Mandestrobin	82.1		P	40 - 150
MCPP	83.6		P	40 - 150
Naproxen	84.9		P	40 - 150
Primidone	86.7		P	40 - 150
Pyraclostrobin	73.6		P	40 - 150
Silvex	89.0		P	40 - 150
Thiamethoxam	79.1		P	40 - 150
Tolfenpyrad	47.7		P	30 - 150
Triclopyr	99.5		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P438013

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.6		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: P438247

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	93.2		P	85 - 115

Reference Method: SM 2540 C-2015
Batch ID: P438248

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

Reference Method: SM 2540 D-2015
Batch ID: P438201

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	109		P	85 - 115

Reference Method: SM 2540 D-2015
Batch ID: P438204

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	111		P	85 - 115

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 4500-F- C-2011
Batch ID: P438017

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

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: P438167

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.7		P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P437962

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

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

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: P437999

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2451002	Chloride	108		P	90 - 110
2451143	Chloride	109		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P438003

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2451002	Sulfate	107		P	90 - 110
2451143	Sulfate	107		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P438147

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2450409	Chloride	101		P	90 - 110
2451426	Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P438151

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438151

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2450409	Sulfate	96.4		P	90 - 110
2451426	Sulfate	96.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438068

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2450903	Ammonia-N	96.6	97.2	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438134

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2450965	Ammonia-N	94.2	97.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437759

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2450890	Kjeldahl Nitrogen	91.7	93.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437760

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2450969	Kjeldahl Nitrogen	102	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438095

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2450900	NO2NO3-N	97.5	98.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438182

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2450002	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438186

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2451104	NO2NO3-N	100	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P437863

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2451104	Total-P	101	102	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P438045

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2450892	Total-P	109	103	P/P	90 - 110

Reference Method: EPA 8270E

Batch ID: P437730

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2450844	Aldrin	56.4	60.4	P/P	24 - 81.0
2450844	Alpha-BHC	90.6	87.7	P/P	65 - 110
2450844	Alpha-Chlordane	90.8	135	P/F	43 - 119
2450844	Beta-BHC	133	137	P/P	54 - 165
2450844	Beta-Cyfluthrin	122	165	P/P	27 - 165
2450844	Bifenthrin	72.1	76.9	P/P	17 - 117
2450844	Carbophenothion	32.1	29.6	P/P	21 - 108
2450844	Chlorothalonil	106	124	P/P	10 - 255
2450844	Cis-Nonachlor	65.9	72.0	P/P	34 - 98.0
2450844	Cypermethrin	95.2	107	P/P	25 - 143
2450844	Dacthal	89.2	86.7	P/P	55 - 139
2450844	DDD-p,p'	60.0	67.8	P/P	30 - 109
2450844	DDE-p,p'	95.1	130	P/F	35 - 106
2450844	DDT-p,p'	73.6	79.5	P/P	41 - 101
2450844	Delta-BHC	128	142	P/P	58 - 165
2450844	Deltamethrin	129	171	P/P	10 - 194
2450844	Dichlobenil	72.9	73.1	P/P	22 - 114
2450844	Dicofol	71.7	73.2	P/P	17 - 133
2450844	Dieldrin	68.6	73.2	P/P	45 - 129
2450844	Endosulfan I	86.9	85.3	P/P	49 - 104
2450844	Endosulfan II	93.9	92.9	P/P	37 - 117
2450844	Endosulfan Sulfate	103	113	P/P	38 - 128
2450844	Endrin	75.1	77.8	P/P	35 - 116
2450844	Endrin Aldehyde	62.1	54.6	P/P	19 - 108
2450844	Endrin Ketone	88.5	87.7	P/P	44 - 134
2450844	Esfenvalerate	133	174	P/P	27 - 176
2450844	Ethalfuralin	94.2	114	P/F	49 - 100
2450844	Fenpropathrin	87.1	74.1	P/P	34 - 117
2450844	Gamma-BHC	109	105	P/P	59 - 129
2450844	Gamma-Chlordane	109	128	F/F	33 - 107
2450844	Heptachlor	53.3	52.9	P/P	37 - 94.0
2450844	Heptachlor Epoxide	102	122	P/F	38 - 118
2450844	Hexachlorobenzene	67.8	72.8	P/P	35 - 97.0
2450844	Kepone	134	141	P/P	10 - 221
2450844	Lambda-Cyhalothrin	111	123	P/P	23 - 190
2450844	Methoprene	67.7	78.5	P/P	21 - 109
2450844	Methoxychlor	103	113	P/P	46 - 118
2450844	MGK-264	129	155	F/F	39 - 122
2450844	Mirex	63.2	68.6	P/P	25 - 90.0
2450844	Oxychlordane	76.8	85.5	P/P	42 - 100
2450844	Permethrin	110	152	P/P	33 - 181
2450844	Phenothrin	110	150	P/F	12 - 125
2450844	Piperonyl Butoxide	132	143	P/P	10 - 178
2450844	Prallethrin	96.9	108	P/P	24 - 122
2450844	Tau-Fluvalinate	129	194	P/F	13 - 151
2450844	Tetramethrin	146	191	P/F	16 - 172

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P437730

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2450844	Trans-Nonachlor	87.2	112	P/F	39 - 100
2450844	Triclosan Methyl	66.3	75.0	P/P	43 - 110
2450844	Trifluralin	95.8	83.6	F/P	45 - 94.0
2450943	PCB-1016	62.8	88.4	P/P	45 - 107
2450943	PCB-1260	54.2	89.1	P/P	40 - 112

Reference Method: EPA 8276

Batch ID: P437730

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2450943	Chlordane	58.3	43.6	P/P	43 - 123
2450943	Toxaphene	58.4	45.1	P/P	27 - 156

Reference Method: EPA 8321B

Batch ID: P437618

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2450389	Acesulfame K	146	145	P/P	40 - 150
2450389	AMPA	91.7	88.9	P/P	40 - 160
2450389	Endothall	104	98.5	P/P	40 - 160
2450389	Glufosinate	95.2	96.8	P/P	40 - 160
2450389	Glyphosate	97.0	94.4	P/P	40 - 160
2450389	Sucralose	107	111	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P437727

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2450837	2,4-D	111	112	P/P	40 - 150
2450837	2,4,5-T	94.4	83.4	P/P	40 - 150
2450837	Acetaminophen	116	114	P/P	30 - 150
2450837	Acetamiprid	79.5	68.6	P/P	40 - 150
2450837	Afidopyropen	62.7	58.9	P/P	30 - 150
2450837	Bentazon	44.0	41.2	P/P	30 - 150
2450837	Benzovindiflupyr	84.1	83.6	P/P	40 - 150
2450837	Carbamazepine	65.4	64.3	P/P	40 - 150
2450837	Clothianidin	115	111	P/P	40 - 150
2450837	Dinotefuran	106	102	P/P	40 - 150
2450837	Diuron	67.1	65.5	P/P	40 - 150
2450837	Fenuron	68.7	66.9	P/P	40 - 150
2450837	Fluridone	83.3	83.4	P/P	40 - 150
2450837	Hydrocodone	81.4	81.0	P/P	40 - 150
2450837	Ibuprofen	70.3	68.7	P/P	40 - 150
2450837	Imazapyr	116	114	P/P	40 - 150
2450837	Imidacloprid	137	133	P/P	40 - 150
2450837	Linuron	82.1	72.1	P/P	40 - 150
2450837	Mandestrobin	82.0	83.1	P/P	40 - 150
2450837	MCPP	87.4	85.6	P/P	40 - 150
2450837	Naproxen	79.8	66.8	P/P	40 - 150
2450837	Primidone	96.6	96.0	P/P	40 - 150
2450837	Pyraclostrobin	81.2	82.0	P/P	40 - 150
2450837	Silvex	96.2	88.3	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P437727

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2450837	Thiamethoxam	102	99.4	P/P	40 - 150
2450837	Tolfenpyrad	55.7	58.5	P/P	30 - 150
2450837	Triclopyr	97.6	99.2	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P438017

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2450964	Fluoride	101	101	P/P	94 - 106

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 4500-F- C-2011
Batch ID: P438167

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2452153	Fluoride	99.7	101	P/P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P437962

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2450900	Organic Carbon	95.0	95.3	P/P	85 - 115

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

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P437750

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450886	Color (true)	2.11	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P437755

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450884	Turbidity	11.6	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
2451742	Selenium	1.03	Spike	P	0 - 20
2451742	Silver	1.70	Spike	P	0 - 20
2451742	Thallium	0.909	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437999

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2451002	Chloride	0.185	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438147

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450409	Chloride	0.278	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438151

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450409	Sulfate	0.335	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438068

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450903	Ammonia-N	0.493	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438134

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450965	Ammonia-N	2.37	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437759

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450890	Kjeldahl Nitrogen	1.43	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437760

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450969	Kjeldahl Nitrogen	1.39	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438095

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450900	NO2NO3-N	0.512	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438182

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450002	NO2NO3-N	0.491	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438186

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2451104	NO2NO3-N	1.63	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P437863

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2451104	Total-P	0.664	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P438045

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450892	Total-P	4.44	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P437730

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450844	Aldrin	6.86	Spike	P	0 - 41
2450844	Alpha-BHC	3.28	Spike	P	0 - 25
2450844	Alpha-Chlordane	39.0	Spike	F	0 - 32
2450844	Beta-BHC	2.93	Spike	P	0 - 33
2450844	Beta-Cyfluthrin	29.5	Spike	P	0 - 43
2450844	Bifenthrin	6.44	Spike	P	0 - 52
2450844	Carbophenothion	8.05	Spike	P	0 - 30
2450844	Chlorothalonil	16.0	Spike	P	0 - 82
2450844	Cis-Nonachlor	8.90	Spike	P	0 - 33
2450844	Cypermethrin	12.0	Spike	P	0 - 51
2450844	Dacthal	2.83	Spike	P	0 - 27
2450844	DDD-p,p'	12.2	Spike	P	0 - 39
2450844	DDE-p,p'	30.8	Spike	P	0 - 31
2450844	DDT-p,p'	7.68	Spike	P	0 - 29
2450844	Delta-BHC	10.7	Spike	P	0 - 35
2450844	Deltamethrin	27.8	Spike	P	0 - 100
2450844	Dichlobenil	0.306	Spike	P	0 - 40
2450844	Dicofol	2.15	Spike	P	0 - 37
2450844	Dieldrin	6.51	Spike	P	0 - 27
2450844	Endosulfan I	1.79	Spike	P	0 - 23
2450844	Endosulfan II	1.10	Spike	P	0 - 34
2450844	Endosulfan Sulfate	9.79	Spike	P	0 - 36
2450844	Endrin	3.49	Spike	P	0 - 45

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P437730

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450844	Endrin Aldehyde	12.9	Spike	P	0 - 76
2450844	Endrin Ketone	0.905	Spike	P	0 - 43
2450844	Esfenvalerate	26.7	Spike	P	0 - 51
2450844	Ethalfuralin	19.2	Spike	P	0 - 22
2450844	Fenpropathrin	16.2	Spike	P	0 - 49
2450844	Gamma-BHC	3.40	Spike	P	0 - 28
2450844	Gamma-Chlordane	16.0	Spike	P	0 - 40
2450844	Heptachlor	0.865	Spike	P	0 - 29
2450844	Heptachlor Epoxide	18.1	Spike	P	0 - 33
2450844	Hexachlorobenzene	7.17	Spike	P	0 - 36
2450844	Kepone	5.64	Spike	P	0 - 85
2450844	Lambda-Cyhalothrin	10.2	Spike	P	0 - 55
2450844	Methoprene	14.7	Spike	P	0 - 53
2450844	Methoxychlor	9.39	Spike	P	0 - 50
2450844	MGK-264	18.6	Spike	P	0 - 43
2450844	Mirex	8.26	Spike	P	0 - 40
2450844	Oxychlordane	10.8	Spike	P	0 - 31
2450844	Permethrin	32.1	Spike	P	0 - 50
2450844	Phenothrin	30.8	Spike	P	0 - 58
2450844	Piperonyl Butoxide	7.30	Spike	P	0 - 100
2450844	Prallethrin	10.9	Spike	P	0 - 39
2450844	Tau-Fluvalinate	40.3	Spike	P	0 - 54
2450844	Tetramethrin	26.5	Spike	P	0 - 51
2450844	Trans-Nonachlor	25.0	Spike	P	0 - 39
2450844	Triclosan Methyl	12.2	Spike	P	0 - 31
2450844	Trifluralin	13.6	Spike	P	0 - 22
2450943	PCB-1016	33.9	Spike	F	0 - 25
2450943	PCB-1260	48.6	Spike	F	0 - 30

Reference Method: EPA 8276
Batch ID: P437730

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450943	Chlordane	28.7	Spike	F	0 - 28
2450943	Toxaphene	25.8	Spike	P	0 - 27

Reference Method: EPA 8321B
Batch ID: P437618

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450389	Acesulfame K	0.482	Spike	P	0 - 30
2450389	AMPA	3.10	Spike	P	0 - 30
2450389	Endothall	5.79	Spike	P	0 - 30
2450389	Glufosinate	1.67	Spike	P	0 - 30
2450389	Glyphosate	2.69	Spike	P	0 - 30
2450389	Sucralose	3.55	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P437727

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450837	2,4-D	1.03	Spike	P	0 - 30
2450837	2,4,5-T	12.3	Spike	P	0 - 30
2450837	Acetaminophen	1.87	Spike	P	0 - 30
2450837	Acetamiprid	14.6	Spike	P	0 - 30
2450837	Afidopyropen	6.22	Spike	P	0 - 30
2450837	Bentazon	6.63	Spike	P	0 - 30
2450837	Benzovindiflupyr	0.648	Spike	P	0 - 30
2450837	Carbamazepine	1.79	Spike	P	0 - 30
2450837	Clothianidin	3.70	Spike	P	0 - 30
2450837	Dinotefuran	3.32	Spike	P	0 - 30
2450837	Diuron	2.43	Spike	P	0 - 30
2450837	Fenuron	2.61	Spike	P	0 - 30
2450837	Fluridone	0.0854	Spike	P	0 - 30
2450837	Hydrocodone	0.445	Spike	P	0 - 30
2450837	Ibuprofen	2.31	Spike	P	0 - 30
2450837	Imazapyr	2.21	Spike	P	0 - 30
2450837	Imidacloprid	2.91	Spike	P	0 - 30
2450837	Linuron	13.0	Spike	P	0 - 30
2450837	Mandestrobin	1.41	Spike	P	0 - 30
2450837	MCPP	2.06	Spike	P	0 - 30
2450837	Naproxen	17.8	Spike	P	0 - 30
2450837	Primidone	0.713	Spike	P	0 - 30
2450837	Pyraclostrobin	0.942	Spike	P	0 - 30
2450837	Silvex	8.52	Spike	P	0 - 30
2450837	Thiamethoxam	2.78	Spike	P	0 - 30
2450837	Tolfenpyrad	4.85	Spike	P	0 - 30
2450837	Triclopyr	1.70	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P438013

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450964	Total Alkalinity	1.18	Sample	P	0 - 3.9

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: P438247

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450787	TDS	3.75	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 2540 C-2015
 Batch ID: P438248

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2451476	TDS	9.72	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
 Batch ID: P438017

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450964	Fluoride	0.0	Spike	P	0 - 1.9

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: P438167

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2452153	Fluoride	0.986	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2011
 Batch ID: P437962

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450900	Organic Carbon	0.159	Spike	P	0 - 20

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

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

Quality Assurance Report Surrogates

Lab Sample ID: 2450943

Field Sample ID: G1SW0095

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	78.0	P	37 - 129
EPA 8270E	Decachlorobiphenyl	94.9	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	57.7	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	57.4	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	65.3	P	28 - 102
EPA 8276	PCNB	99.2	P	49 - 115

Lab Sample ID: 2450944

Field Sample ID: G5SW0134

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	75.8	P	37 - 129
EPA 8270E	Decachlorobiphenyl	91.2	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	51.2	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	51.9	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	73.9	P	28 - 102
EPA 8276	PCNB	89.0	P	49 - 115

Lab Sample ID: 2450955

Field Sample ID: G1SW0095

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	97.3	P	30 - 160
EPA 8321B	Acetaminophen-d4	84.3	P	30 - 160
EPA 8321B	Carbamazepine-d10	54.9	P	30 - 160
EPA 8321B	Diuron-d6	49.0	P	30 - 160
EPA 8321B	Endothall-d6	84.9	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	74.7	P	30 - 160
EPA 8321B	Ibuprofen-d3	65.2	P	30 - 160
EPA 8321B	Primidone-d5	70.5	P	30 - 160
EPA 8321B	Sucralose-d6	54.7	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A122707

Included Lab Sample IDs: 2450899, 2450901, 2450902

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

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A122708

Included Lab Sample IDs: 2450899, 2450901, 2450902

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

Reference Method: EPA 8321B

Run ID: A122711

Included Lab Sample IDs: 2450955

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	97.6	97.5	P/P	60 - 160
Endothall	116	118	P/P	60 - 160
Glufosinate	103	97.1	P/P	60 - 160
Glyphosate	97.2	95.0	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A122733

Included Lab Sample IDs: 2450955

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	110	128	P/P	60 - 160
Sucralose	116	118	P/P	60 - 160

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A122736

Included Lab Sample IDs: 2450899, 2450901

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	105	103	P/P	90 - 110
Sulfate	105	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A122765

Included Lab Sample IDs: 2450903, 2450904

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	103	99.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A122776

Included Lab Sample IDs: 2450900

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	99.4	100	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-2011

Run ID: A122791

Included Lab Sample IDs: 2450900

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.4	95.0	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A122793

Included Lab Sample IDs: 2450955

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	94.7	100	P/P	50 - 150
2,4,5-T	87.9	93.3	P/P	50 - 150
Acetaminophen	108	111	P/P	60 - 160
Acetamiprid	105	104	P/P	50 - 150
Afidopyropen	98.0	89.6	P/P	50 - 150
Bentazon	107	102	P/P	50 - 160
Benzovindiflupyr	102	100	P/P	50 - 150
Carbamazepine	101	99.8	P/P	60 - 150
Clothianidin	102	101	P/P	60 - 150
Dinotefuran	110	110	P/P	50 - 150
Diuron	106	106	P/P	60 - 160
Fenuron	100	101	P/P	60 - 150
Fluridone	110	107	P/P	60 - 160
Hydrocodone	107	107	P/P	60 - 150
Ibuprofen	84.9	78.8	P/P	50 - 160
Imazapyr	90.6	99.7	P/P	50 - 150
Imidacloprid	94.7	92.6	P/P	60 - 150
Linuron	109	110	P/P	60 - 150
Mandestrobin	104	98.9	P/P	50 - 150
MCPP	103	96.3	P/P	50 - 150
Naproxen	91.4	130	P/P	50 - 160
Primidone	99.0	99.2	P/P	60 - 150
Pyraclostrobin	103	103	P/P	60 - 150
Silvex	94.6	96.7	P/P	50 - 150
Thiamethoxam	103	102	P/P	50 - 150
Tolfenpyrad	97.7	95.6	P/P	60 - 150
Triclopyr	99.0	103	P/P	50 - 150

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A122794

Included Lab Sample IDs: 2450903, 2450904

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	99.1	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A122810

Included Lab Sample IDs: 2450903, 2450904

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.0	94.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-2011
Run ID: A122815
Included Lab Sample IDs: 2450899

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	96.7	97.2	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Run ID: A122815
Included Lab Sample IDs: 2450899

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

Reference Method: SM 2320 B-2011
Run ID: A122818
Included Lab Sample IDs: 2450901, 2450902

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: 2450901

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

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A122831
Included Lab Sample IDs: 2450903, 2450904

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.1	99.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A122846
Included Lab Sample IDs: 2450900

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.3	97.8	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A122849
Included Lab Sample IDs: 2450900

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

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A122869
Included Lab Sample IDs: 2450900

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	96.6	96.7	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A122874

Included Lab Sample IDs: 2450902

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	105	105	P/P	90 - 110
Sulfate	103	103	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A122877

Included Lab Sample IDs: 2450956, 2450957

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	97.4	99.8	P/P	90 - 110
Calcium	99.8	97.4	P/P	90 - 110
Iron	95.5	97.7	P/P	90 - 110
Magnesium	95.4	97.1	P/P	90 - 110
Magnesium	97.1	93.7	P/P	90 - 110
Potassium	94.4	97.5	P/P	90 - 110
Potassium	97.5	95.1	P/P	90 - 110
Sodium	97.2	98.9	P/P	90 - 110
Strontium	95.6	97.5	P/P	90 - 110
Tin	92.9	98.4	P/P	90 - 110
Tin	98.4	94.3	P/P	90 - 110
Titanium	94.2	98.8	P/P	90 - 110
Vanadium	95.0	99.4	P/P	90 - 110
Zinc	96.1	101	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A122880

Included Lab Sample IDs: 2450956, 2450957

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	104	107	P/P	90 - 110
Antimony	103	103	P/P	90 - 110
Arsenic	105	106	P/P	90 - 110
Barium	103	104	P/P	90 - 110
Beryllium	99.5	104	P/P	90 - 110
Boron	101	102	P/P	90 - 110
Cadmium	103	103	P/P	90 - 110
Chromium	104	104	P/P	90 - 110
Cobalt	102	103	P/P	90 - 110
Copper	102	104	P/P	90 - 110
Lead	98.6	99.5	P/P	90 - 110
Manganese	102	102	P/P	90 - 110
Molybdenum	104	103	P/P	90 - 110
Nickel	103	104	P/P	90 - 110
Selenium	104	104	P/P	90 - 110
Silver	103	103	P/P	90 - 110
Thallium	102	102	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A122884

Included Lab Sample IDs: 2450902

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

Reference Method: SM 4500-F- C-2011

Run ID: A122884

Included Lab Sample IDs: 2450902

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A122891

Included Lab Sample IDs: 2450903, 2450904

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A122921

Included Lab Sample IDs: 2450957

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sodium	99.8	107	P/P	95 - 105

Reference Method: EPA 8270E

Run ID: A122961

Included Lab Sample IDs: 2450943, 2450944

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	98.3		P	80 - 120
PCB-1260	96.5		P	80 - 120

Reference Method: EPA 8270E

Run ID: A123058

Included Lab Sample IDs: 2450943, 2450944

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	101		P	80 - 120
Alpha-BHC	99.7		P	80 - 120
Alpha-Chlordane	86.1		P	80 - 120
Beta-BHC	95.9		P	80 - 120
Beta-Cyfluthrin	98.4		P	80 - 120
Bifenthrin	114		P	80 - 120
Carbophenothion	97.0		P	80 - 120
Chlorothalonil	95.1		P	80 - 120
Cis-Nonachlor	92.4		P	80 - 120
Cypermethrin	97.4		P	80 - 120
Dacthal	95.1		P	80 - 120
DDD-p,p'	92.6		P	80 - 120
DDE-p,p'	94.2		P	80 - 120
DDT-p,p'	103		P	80 - 120
Delta-BHC	96.9		P	80 - 120
Deltamethrin	104		P	80 - 120
Dichlobenil	113		P	80 - 120
Dicofol	89.5		P	80 - 120
Dieldrin	97.7		P	80 - 120
Endosulfan I	101		P	80 - 120
Endosulfan II	99.9		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A123058

Included Lab Sample IDs: 2450943, 2450944

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Endosulfan Sulfate	92.6		P	80 - 120
Endrin	104		P	80 - 120
Endrin Aldehyde	99.9		P	80 - 120
Endrin Ketone	110		P	80 - 120
Esfenvalerate	102		P	80 - 120
Ethalfuralin	95.7		P	80 - 120
Fenpropathrin	118		P	80 - 120
Gamma-BHC	102		P	80 - 120
Gamma-Chlordane	89.7		P	80 - 120
Heptachlor	96.6		P	80 - 120
Heptachlor Epoxide	88.8		P	80 - 120
Hexachlorobenzene	98.1		P	80 - 120
Kepone	103		P	80 - 120
Lambda-Cyhalothrin	104		P	80 - 120
Methoprene	103		P	80 - 120
Methoxychlor	109		P	80 - 120
MGK-264	90.2		P	80 - 120
Mirex	110		P	80 - 120
Oxychlordane	96.3		P	80 - 120
Permethrin	102		P	80 - 120
Phenothrin	103		P	80 - 120
Piperonyl Butoxide	109		P	80 - 120
Prallethrin	102		P	80 - 120
Tau-Fluvalinate	102		P	80 - 120
Tetramethrin	103		P	80 - 120
Trans-Nonachlor	88.7		P	80 - 120
Triclosan Methyl	89.9		P	80 - 120
Trifluralin	110		P	80 - 120

Reference Method: EPA 8276

Run ID: A123157

Included Lab Sample IDs: 2450943, 2450944

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	98.8		P	80 - 120
Toxaphene	100		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)	101				2.11	
EPA 180.1 Rev. 2.0	Turbidity	105				11.6	
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	108	108	109		0.185	
	Chloride	102	101	101		0.278	
	Sulfate	108	107	107			
	Sulfate	100	96.4	96.7		0.335	
EPA 350.1 Rev. 2.0	Ammonia-N	96.6	96.6	97.2			0.493
	Ammonia-N	94.4	94.2	97.2			2.37
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	100	91.7	93.2			1.43
	Kjeldahl Nitrogen	108	102	100			1.39
EPA 353.2 Rev. 2.0	NO2NO3-N	99.0	97.5	98.0			0.512
	NO2NO3-N	99.0	102	102			0.491
	NO2NO3-N	101	100	102			1.63
EPA 365.1 Rev. 2.0	Total-P	106	101	102			0.664
	Total-P	104	109	103			4.44
EPA 8270E	Aldrin	55.6	56.4	60.4			6.86
	Alpha-BHC	75.2	90.6	87.7			3.28
	Alpha-Chlordane	65.2	90.8	135			39.0
	Beta-BHC	94.7	133	137			2.93
	Beta-Cyfluthrin	103	122	165			29.5
	Bifenthrin	70.6	72.1	76.9			6.44
	Carbophenothion	67.1	32.1	29.6			8.05
	Chlorothalonil	71.5	106	124			16.0
	Cis-Nonachlor	67.3	65.9	72.0			8.90
	Cypermethrin	85.6	95.2	107			12.0
	Dacthal	87.2	89.2	86.7			2.83
	DDD-p,p'	63.2	60.0	67.8			12.2

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	DDE-p,p'	71.6	95.1	130		30.8
	DDT-p,p'	68.2	73.6	79.5		7.68
	Delta-BHC	97.0	128	142		10.7
	Deltamethrin	120	129	171		27.8
	Dichlobenil	81.8	72.9	73.1		0.306
	Dicofol	69.5	71.7	73.2		2.15
	Dieldrin	65.5	68.6	73.2		6.51
	Endosulfan I	72.4	86.9	85.3		1.79
	Endosulfan II	89.0	93.9	92.9		1.10
	Endosulfan Sulfate	79.7	103	113		9.79
	Endrin	71.4	75.1	77.8		3.49
	Endrin Aldehyde	70.3	62.1	54.6		12.9
	Endrin Ketone	102	88.5	87.7		0.905
	Esfenvalerate	98.2	133	174		26.7
	Ethalfuralin	72.6	94.2	114		19.2
	Fenpropathrin	86.0	87.1	74.1		16.2
	Gamma-BHC	95.8	109	105		3.40
	Gamma-Chlordane	69.4	109	128		16.0
	Heptachlor	52.5	53.3	52.9		0.865
	Heptachlor Epoxide	74.7	102	122		18.1
	Hexachlorobenzene	55.1	67.8	72.8		7.17
	Kepone	104	134	141		5.64
	Lambda-Cyhalothrin	90.8	111	123		10.2
	Methoprene	65.4	67.7	78.5		14.7
	Methoxychlor	96.7	103	113		9.39
	MGK-264	91.7	129	155		18.6
	Mirex	56.6	63.2	68.6		8.26
	Oxychlordane	58.2	76.8	85.5		10.8
	PCB-1016	80.6	62.8	88.4		33.9
	PCB-1260	83.2	54.2	89.1		48.6
	Permethrin	88.5	110	152		32.1
	Phenothrin	84.3	110	150		30.8
	Piperonyl Butoxide	137	132	143		7.30
	Prallethrin	97.1	96.9	108		10.9
	Tau-Fluvalinate	87.8	129	194		40.3
	Tetramethrin	125	146	191		26.5
	Trans-Nonachlor	62.5	87.2	112		25.0
	Triclosan Methyl	64.0	66.3	75.0		12.2
	Trifluralin	73.9	95.8	83.6		13.6
EPA 8276	Chlordane	52.6	58.3	43.6		28.7
	Toxaphene	49.5	58.4	45.1		25.8
EPA 8321B	2,4-D	86.2	111	112		1.03
	2,4,5-T	77.9	94.4	83.4		12.3
	Acesulfame K	111	146	145		0.482
	Acetaminophen	91.2	116	114		1.87
	Acetamiprid	80.0	79.5	68.6		14.6
	Afidopyropen	64.1	62.7	58.9		6.22
	AMPA	102	91.7	88.9		3.10
	Bentazon	82.7	44.0	41.2		6.63
	Benzovindiflupyr	81.2	84.1	83.6		0.648
	Carbamazepine	74.5	65.4	64.3		1.79
	Clothianidin	86.2	115	111		3.70
	Dinotefuran	100	106	102		3.32
	Diuron	73.5	67.1	65.5		2.43

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Endothall	113	104	98.5		5.79
	Fenuron	85.5	68.7	66.9		2.61
	Fluridone	88.7	83.3	83.4		0.0854
	Glufosinate	101	95.2	96.8		1.67
	Glyphosate	101	97.0	94.4		2.69
	Hydrocodone	87.6	81.4	81.0		0.445
	Ibuprofen	72.9	70.3	68.7		2.31
	Imazapyr	81.8	116	114		2.21
	Imidacloprid	80.8	137	133		2.91
	Linuron	81.9	82.1	72.1		13.0
	Mandestrobin	82.1	82.0	83.1		1.41
	MCPP	83.6	87.4	85.6		2.06
	Naproxen	84.9	79.8	66.8		17.8
	Primidone	86.7	96.6	96.0		0.713
	Pyraclostrobin	73.6	81.2	82.0		0.942
	Silvex	89.0	96.2	88.3		8.52
	Sucralose	101	107	111		3.55
	Thiamethoxam	79.1	102	99.4		2.78
	Tolfenpyrad	47.7	55.7	58.5		4.85
	Triclopyr	99.5	97.6	99.2		1.70
SM 2320 B-2011	Total Alkalinity	97.6			1.18	
	Total Alkalinity	101			0.0647	
SM 2540 C-2015	TDS	93.2			3.75	
	TDS	105			9.72	
SM 2540 D-2015	TSS	109				
	TSS	111				
SM 4500-F- C-2011	Fluoride	101	101	101		0.0
	Fluoride	102	102	104		1.40
	Fluoride	98.7	99.7	101		0.986
SM 5310 B-2011	Organic Carbon	95.6	95.0	95.3		0.159
	Organic Carbon	95.7	85.1	88.5		3.20

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2450899, 2450901, 2450902
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2450899, 2450901, 2450902
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2450956, 2450957
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2450956, 2450957
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2450899, 2450901, 2450902
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2450899, 2450901, 2450902
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2450900, 2450903, 2450904
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2450900, 2450903, 2450904
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2450900, 2450903, 2450904
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2450900, 2450903, 2450904
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2450943, 2450944
EPA 8270E	PCBs in water matrices by GC/MS/MS	2450943, 2450944
EPA 8276	Chlordane and Toxaphene in water matrices by GC/MS with Negative Chemical Ionization	2450943, 2450944
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2450955
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2450899, 2450901, 2450902

Reference Method Descriptions

Method	Description	<u>Associated Samples</u>
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2450956, 2450957
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2450899, 2450901, 2450902
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2450899, 2450901, 2450902
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2450899, 2450901, 2450902
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2450900, 2450903, 2450904

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	11/14/2023			11/14/2023 15:11	Chandler E Cox	2450899, 2450901
	11/14/2023			11/14/2023 15:12	Chandler E Cox	2450902
EPA 180.1 Rev. 2.0	11/14/2023			11/14/2023 14:07	Samantha L Bates	2450899
	11/14/2023			11/14/2023 14:08	Samantha L Bates	2450901
	11/14/2023			11/14/2023 14:10	Samantha L Bates	2450902
EPA 200.7 Rev. 4.4	11/14/2023	11/20/2023 12:25	George D Taylor	11/21/2023 19:03	Samatha Luckman	2450956
	11/14/2023	11/20/2023 12:25	George D Taylor	11/21/2023 19:13	Samatha Luckman	2450956
	11/14/2023	11/20/2023 12:25	George D Taylor	11/21/2023 19:21	Samatha Luckman	2450956
	11/14/2023	11/20/2023 12:25	George D Taylor	11/21/2023 19:29	Samatha Luckman	2450957
	11/14/2023	11/20/2023 12:25	George D Taylor	11/21/2023 20:06	Samatha Luckman	2450957
EPA 200.8 Rev. 5.4	11/14/2023	11/20/2023 12:25	George D Taylor	11/28/2023 16:05	Samatha Luckman	2450957
	11/14/2023	11/20/2023 12:25	George D Taylor	11/21/2023 15:19	Emily M Philpot	2450956
	11/14/2023	11/20/2023 12:25	George D Taylor	11/21/2023 15:28	Emily M Philpot	2450957
	11/14/2023	11/20/2023 12:25	George D Taylor	11/21/2023 17:22	Emily M Philpot	2450956
	11/14/2023	11/20/2023 12:25	George D Taylor	11/21/2023 17:32	Emily M Philpot	2450957
EPA 300.0 Rev. 2.1	11/14/2023			11/18/2023 07:11	James L Waggeberby	2450899
	11/14/2023			11/18/2023 07:26	James L Waggeberby	2450901
	11/14/2023			11/22/2023 02:21	James L Waggeberby	2450902
EPA 350.1 Rev. 2.0	11/14/2023			11/20/2023 12:21	Khloe J Berg	2450903
	11/14/2023			11/20/2023 12:31	Khloe J Berg	2450904
	11/14/2023			11/21/2023 14:03	Khloe J Berg	2450900
EPA 351.2 Rev. 2.0	11/14/2023	11/15/2023 11:48	Simonne.V. Calhoun	11/16/2023 11:15	Samantha L Bates	2450903
	11/14/2023	11/15/2023 11:48	Simonne.V. Calhoun	11/16/2023 11:17	Samantha L Bates	2450904
	11/14/2023	11/15/2023 16:54	Simonne.V. Calhoun	11/16/2023 13:06	Samantha L Bates	2450900
EPA 353.2 Rev. 2.0	11/14/2023			11/20/2023 11:28	Anna M. Plaviak	2450900
	11/14/2023			11/27/2023 12:15	Fadila Guebre	2450903
	11/14/2023			11/27/2023 13:58	Fadila Guebre	2450904
EPA 365.1 Rev. 2.0	11/14/2023	11/16/2023 12:40	Adam P Silver	11/17/2023 11:22	Chandler E Cox	2450903
	11/14/2023	11/16/2023 12:40	Adam P Silver	11/17/2023 11:23	Chandler E Cox	2450904
	11/14/2023	11/20/2023 12:58	Adam P Silver	11/20/2023 18:52	Simonne.V. Calhoun	2450900
EPA 8270E	11/14/2023	11/17/2023 08:00	Fe-Val Siddell	11/28/2023 01:35	Lipi Saha	2450943
	11/14/2023	11/17/2023 08:00	Fe-Val Siddell	11/28/2023 02:40	Lipi Saha	2450944
	11/14/2023	11/17/2023 08:00	Fe-Val Siddell	11/29/2023 01:45	Julie Wi	2450943
	11/14/2023	11/17/2023 08:00	Fe-Val Siddell	11/29/2023 02:18	Julie Wi	2450944
EPA 8276	11/14/2023	11/17/2023 08:00	Fe-Val Siddell	12/12/2023 05:00	Arthur Maknenko	2450943
	11/14/2023	11/17/2023 08:00	Fe-Val Siddell	12/12/2023 07:51	Arthur Maknenko	2450944
EPA 8321B	11/14/2023	11/14/2023 12:00	Tae K Lee	11/14/2023 14:37	Hana Lee	2450955
	11/14/2023	11/14/2023 12:00	Tae K Lee	11/14/2023 16:27	Hana Lee	2450955
	11/14/2023	11/14/2023 12:00	Tae K Lee	11/15/2023 10:56	Hana Lee	2450955
	11/14/2023	11/15/2023 09:00	Hoor Shaik	11/16/2023 18:55	Juyoung Kim	2450955

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2320 B-2011	11/14/2023			11/17/2023 08:20	Dale L. Simmons	2450901
	11/14/2023			11/17/2023 08:34	Dale L. Simmons	2450902
	11/14/2023			11/18/2023 06:56	Adam P Silver	2450899
SM 2340 B-2011	11/14/2023			11/21/2023 19:13	Samatha Luckman	2450956
	11/14/2023			11/21/2023 20:06	Samatha Luckman	2450957
SM 2540 C-2015	11/14/2023			11/16/2023 15:42	Yijie Li	2450899, 2450901, 2450902
SM 2540 D-2015	11/14/2023			11/16/2023 15:42	Yijie Li	2450899, 2450901, 2450902
SM 4500-F- C-2011	11/14/2023			11/17/2023 05:30	Dale L. Simmons	2450901
	11/14/2023			11/18/2023 06:56	Adam P Silver	2450899
	11/14/2023			11/21/2023 23:08	Chandler E Cox	2450902
SM 5310 B-2011	11/14/2023			11/16/2023 12:17	Khloe J Berg	2450900
	11/14/2023			11/18/2023 02:15	Kenneth H Lee	2450903
	11/14/2023			11/18/2023 02:33	Kenneth H Lee	2450904