

Chemical Analysis Report

NE-DIST-2024-01-23-02

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

Event Description: **LSJR Main 2024**
Request ID: **RQ-2024-01-15-35**
Customer: **NE-DIST**
Project ID: **SMP**

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Certified by: Marek Topolski, Environmental Specialist III

Date Certified: 15-FEB-2024 12:44

A handwritten signature in black ink, appearing to read "Marek Topolski", with a stylized, flowing script.

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: BIG FISHWEIR CR HERSHEL ST

Collection Date/Time: 01/22/2024 10:50

Field ID: 20030139

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2462650	DEP SOP: NU-094-1	Color (true)	68		PCU	P440310	
	EPA 180.1 Rev. 2.0	Turbidity	5.8		NTU	P440323	
	EPA 300.0 Rev. 2.1	Chloride	85		mg Cl/L	P440502	
		Sulfate	41		mg SO4/L	P440505	
	SM 2320 B-2011	Total Alkalinity	139		mg CaCO3/L	P440514	
	SM 2540 C-2015	TDS	339		mg/L	P440825	
	SM 2540 D-2015	TSS	3	I	mg/L	P440742	
2462651	SM 4500-F- C-2011	Fluoride	0.18		mg F/L	P440517	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.095		mg N/L	P440524	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.65		mg N/L	P440494	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.29		mg N/L	P440443	
	EPA 365.1 Rev. 2.0	Total-P	0.10		mg P/L	P440433	
2462673	SM 5310 B-2014	Organic Carbon	11		mg C/L	P440569	
	EPA 200.7 Rev. 4.4	Calcium	61.3		mg/L	P440359	
		Iron	590		ug/L	P440359	
		Magnesium	12.2		mg/L	P440359	
		Manganese	26.5		ug/L	P440359	
		Potassium	3.1		mg/L	P440359	
		Sodium	47.6		mg/L	P440359	
		Strontium	517		ug/L	P440359	
		Tin	3.0	U	ug/L	P440359	
		Titanium	7.5		ug/L	P440359	
		Vanadium	2.0	U	ug/L	P440359	
		Zinc	10	I	ug/L	P440359	
	EPA 200.8 Rev. 5.4	Aluminum	117		ug/L	P440359	
		Antimony	0.22		ug/L	P440359	
		Arsenic	0.97		ug/L	P440359	
		Barium	52.0		ug/L	P440359	
		Beryllium	0.015	I	ug/L	P440359	
		Boron	60.0		ug/L	P440359	
		Cadmium	0.020	U	ug/L	P440359	
		Chromium	0.87	I	ug/L	P440576	
		Cobalt	0.198		ug/L	P440359	
		Copper	1.56		ug/L	P440359	
		Lead	0.98		ug/L	P440359	
		Molybdenum	0.84		ug/L	P440359	
		Nickel	4.4		ug/L	P440359	
		Selenium	0.25	I	ug/L	P440359	
		Silver	0.010	U	ug/L	P440359	
		Thallium	0.10	U	ug/L	P440359	
	SM 2340 B-2011	Hardness	203		mg/L	P440359	

Ref. Method and Comment:

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

Sample Location: EqB

Collection Date/Time: 01/22/2024 11:00

Field ID: EB_01222024

Matrix: W-EQPMT-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2462652	DEP SOP: NU-094-1	Color (true)	2.5	U	PCU	P440310	
	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P440323	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P440502	
		Sulfate	0.20	U	mg SO4/L	P440505	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P440514	
	SM 2540 C-2015	TDS	15	U	mg/L	P440825	
	SM 2540 D-2015	TSS	2	U	mg/L	P440742	
2462653	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P440517	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P440524	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P440494	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P440443	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P440433	
2462676	SM 5310 B-2014	Organic Carbon	0.50	U	mg C/L	P440569	
	EPA 200.7 Rev. 4.4	Calcium	0.075	U	mg/L	P440359	
		Iron	30	U	ug/L	P440359	
		Magnesium	0.040	U	mg/L	P440359	
		Manganese	1.0	U	ug/L	P440359	
		Potassium	0.30	U	mg/L	P440359	
		Sodium	0.50	U	mg/L	P440359	
		Strontium	2.0	U	ug/L	P440359	
		Tin	3.0	U	ug/L	P440359	
		Titanium	0.75	U	ug/L	P440359	
		Vanadium	2.0	U	ug/L	P440359	
		Zinc	5.0	U	ug/L	P440359	
	EPA 200.8 Rev. 5.4	Aluminum	5.0	U	ug/L	P440359	
		Antimony	0.050	U	ug/L	P440359	
		Arsenic	0.050	U	ug/L	P440359	
		Barium	0.20	U	ug/L	P440359	
		Beryllium	0.010	U	ug/L	P440359	
		Boron	2.0	U	ug/L	P440359	
		Cadmium	0.020	U	ug/L	P440359	
		Chromium	0.40	U	ug/L	P440359	
		Cobalt	0.020	U	ug/L	P440359	
		Copper	0.40	U	ug/L	P440359	
		Lead	0.20	U	ug/L	P440359	
		Molybdenum	0.15	U	ug/L	P440359	
		Nickel	0.63	I	ug/L	P440359	
		Selenium	0.20	U	ug/L	P440359	
		Silver	0.010	U	ug/L	P440359	
		Thallium	0.10	U	ug/L	P440359	
	SM 2340 B-2011	Hardness	0.35	U	mg/L	P440359	

Ref. Method and Comment:

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

EPA 200.8 Rev. 5.4: The nickel result was confirmed in the undigested sample on 1/26/2024.

Sample Location: WILLOW BR AT RIVERSIDE AVE

Collection Date/Time: 01/22/2024 11:20

Field ID: 20030761

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2462667	EPA 8321B	2,4-D	0.17		ug/L	P440426	
		Acesulfame K	0.10	I	ug/L	P440203	
		2,4,5-T	0.0040	U	ug/L	P440426	
		AMPA	0.10	U	ug/L	P440203	
		Acetaminophen	0.32		ug/L	P440426	
		Acetamiprid	0.0020	U	ug/L	P440426	
		Endothall	0.25	U	ug/L	P440203	
		Glufosinate	0.10	U	ug/L	P440203	
		Glyphosate	0.10	U	ug/L	P440203	
		Afidopyropen	0.0020	U	ug/L	P440426	
		Bentazon	0.11		ug/L	P440426	
		Sucralose	0.18		ug/L	P440203	
		Benzovindiflupyr	0.0020	U	ug/L	P440426	
		Carbamazepine	8.0E-04	U	ug/L	P440426	
		Clothianidin	0.0023	I	ug/L	P440426	
		Dinotefuran	0.0054	I	ug/L	P440426	
		Diuron	0.0025	I	ug/L	P440426	
		Fenuron	0.032	U	ug/L	P440426	
		Fluridone	8.0E-04	U	ug/L	P440426	
		Imazapyr	0.041		ug/L	P440426	
		Hydrocodone	0.0020	U	ug/L	P440426	
		Ibuprofen	0.080	U	ug/L	P440426	
		Imidacloprid	0.022		ug/L	P440426	
		Linuron	0.0040	U	ug/L	P440426	
		Mandestrobin	0.0020	U	ug/L	P440426	
		MCPP	0.0020	U	ug/L	P440426	
		Naproxen	0.016	I	ug/L	P440426	
		Primidone	0.0040	U	ug/L	P440426	
		Pyraclostrobin	0.0020	U	ug/L	P440426	
		Silvex	0.0040	U	ug/L	P440426	
		Thiamethoxam	0.0020	U	ug/L	P440426	
		Tolfenpyrad	0.0020	U	ug/L	P440426	
		Triclopyr	0.0040	U	ug/L	P440426	

Ref. Method and Comment:

EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: HOGAN CREEK AT 1ST ST

Collection Date/Time: 01/22/2024 12:10

Field ID: 20030692

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2462665	EPA 8270E	Aldrin	0.66	UJ	ng/L	P440272	LCS
		Alpha-BHC	0.12	I	ng/L	P440272	
		Alpha-Chlordane	0.64	I	ng/L	P440272	
		PCB-1016	2.0	U	ng/L	P440272	
		Beta-BHC	0.98		ng/L	P440272	
		PCB-1221	2.0	U	ng/L	P440272	
		Beta-Cyfluthrin	1.3	U	ng/L	P440272	
		PCB-1232	2.0	U	ng/L	P440272	
		Bifenthrin	0.51	U	ng/L	P440272	
		PCB-1242	2.0	U	ng/L	P440272	
		PCB-1248	2.0	U	ng/L	P440272	
		Chlorothalonil	3.7	U	ng/L	P440272	
		PCB-1254	2.0	U	ng/L	P440272	
		Cis-Nonachlor	0.20	U	ng/L	P440272	
		PCB-1260	2.0	U	ng/L	P440272	
		Cypermethrin	1.5	U	ng/L	P440272	
		Dacthal	0.15	U	ng/L	P440272	
		DDD-p,p'	0.35	I	ng/L	P440272	
		DDE-p,p'	0.20	U	ng/L	P440272	
		DDT-p,p'	1.1	I	ng/L	P440272	
		Delta-BHC	0.41	I	ng/L	P440272	
		Deltamethrin	1.3	U	ng/L	P440272	
		Dichlobenil	0.26	U	ng/L	P440272	
		Dicofol	1.3	U	ng/L	P440272	
		Dieldrin	4.0		ng/L	P440272	
		Endosulfan I	0.41	U	ng/L	P440272	MS
		Endosulfan II	0.92	U	ng/L	P440272	
		Endosulfan Sulfate	0.31	U	ng/L	P440272	
		Endrin	0.92	U	ng/L	P440272	
		Endrin Aldehyde	0.77	U	ng/L	P440272	
		Endrin Ketone	0.41	U	ng/L	P440272	
		Esfenvalerate	0.77	U	ng/L	P440272	
		Ethalfuralin	0.15	UJ	ng/L	P440272	LCS
		Fenpropathrin	0.26	U	ng/L	P440272	
		Gamma-BHC	0.13	U	ng/L	P440272	
		Gamma-Chlordane	0.56	I	ng/L	P440272	
		Heptachlor	0.20	U	ng/L	P440272	MS
		Heptachlor Epoxide	1.5	J	ng/L	P440272	LCS
		Hexachlorobenzene**	1.0	U	ng/L	P440272	
		Kepone	14	U	ng/L	P440272	
		Lambda-Cyhalothrin	0.77	U	ng/L	P440272	
		Methoprene	0.77	U	ng/L	P440272	
		Methoxychlor	0.31	U	ng/L	P440272	
		MGK-264	0.20	U	ng/L	P440272	

Field ID: 20030692

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2462665	EPA 8270E	Mirex	0.36	U	ng/L	P440272	
		Oxychlordane	0.31	U	ng/L	P440272	
		Permethrin	1.6	U	ng/L	P440272	
		Phenothrin	0.92	U	ng/L	P440272	
		Piperonyl Butoxide	0.68	I	ng/L	P440272	
		Prallethrin	2.0	U	ng/L	P440272	
		Tau-Fluvalinate	0.26	U	ng/L	P440272	
		Tetramethrin	0.77	U	ng/L	P440272	
		Trans-Nonachlor	0.20	U	ng/L	P440272	
		Triclosan Methyl	0.15	U	ng/L	P440272	MS
		Trifluralin	0.20	U	ng/L	P440272	
	EPA 8276	Chlordane	4.9	I	ng/L	P440272	
		Toxaphene	15	U	ng/L	P440272	

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

Sample Location: DEER CR AT TALLEYRAND AVE

Collection Date/Time: 01/22/2024 12:30

Field ID: 20030792

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2462674	EPA 200.7 Rev. 4.4	Calcium	81.0		mg/L	P440359	
		Iron	1.37E+03		ug/L	P440359	
		Magnesium	22.8		mg/L	P440359	
		Manganese	144		ug/L	P440359	
		Potassium	3.7		mg/L	P440359	
		Sodium	44.9		mg/L	P440359	
		Strontium	928		ug/L	P440359	
		Tin	3.0	U	ug/L	P440359	
		Titanium	0.94	I	ug/L	P440359	
		Vanadium	2.0	U	ug/L	P440359	
	EPA 200.8 Rev. 5.4	Zinc	7.2	I	ug/L	P440359	
		Aluminum	111		ug/L	P440359	
		Antimony	0.26		ug/L	P440359	
		Arsenic	3.97		ug/L	P440359	
		Barium	47.3		ug/L	P440359	
		Beryllium	0.020	I	ug/L	P440359	
		Boron	70.1		ug/L	P440359	
		Cadmium	0.020	U	ug/L	P440359	
		Chromium	0.71	I	ug/L	P440576	
		Cobalt	0.181		ug/L	P440359	
		Copper	1.13		ug/L	P440359	
		Lead	0.66		ug/L	P440359	
		Molybdenum	1.81		ug/L	P440359	
		Nickel	0.74	I	ug/L	P440359	
		Selenium	0.20	U	ug/L	P440359	
		Silver	0.010	U	ug/L	P440359	
		Thallium	0.10	U	ug/L	P440359	
	SM 2340 B-2011	Hardness	296		mg/L	P440359	
2462695	EPA 8321B	2,4-D	0.11		ug/L	P440426	
		Acesulfame K	0.10	U	ug/L	P440203	
		2,4,5-T	0.0040	U	ug/L	P440426	
		AMPA	0.11	I	ug/L	P440203	
		Acetaminophen	0.0080	U	ug/L	P440426	
		Acetamiprid	0.0020	U	ug/L	P440426	
		Endothall	0.25	U	ug/L	P440203	
		Glufosinate	0.10	U	ug/L	P440203	
		Glyphosate	0.10	U	ug/L	P440203	
		Afidopyropen	0.0020	U	ug/L	P440426	
		Bentazon	0.0064		ug/L	P440426	
		Sucralose	0.22		ug/L	P440203	
		Benzovindiflupyr	0.0020	U	ug/L	P440426	
		Carbamazepine	8.0E-04	U	ug/L	P440426	
		Clothianidin	0.0020	U	ug/L	P440426	
		Dinotefuran	0.0020	U	ug/L	P440426	

Field ID: 20030792

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2462695	EPA 8321B	Diuron	0.0048	I	ug/L	P440426	
		Fenuron	0.032	U	ug/L	P440426	
		Fluridone	8.0E-04	U	ug/L	P440426	
		Imazapyr	0.092		ug/L	P440426	
		Hydrocodone	0.0020	U	ug/L	P440426	
		Ibuprofen	0.080	U	ug/L	P440426	
		Imidacloprid	0.0020	U	ug/L	P440426	
		Linuron	0.0040	U	ug/L	P440426	
		Mandestrobin	0.0020	U	ug/L	P440426	
		MCPP	0.0020	U	ug/L	P440426	
		Naproxen	0.0080	U	ug/L	P440426	
		Primidone	0.0040	U	ug/L	P440426	
		Pyraclostrobin	0.0020	U	ug/L	P440426	
		Silvex	0.0040	U	ug/L	P440426	
		Thiamethoxam	0.0020	U	ug/L	P440426	
		Tolfenpyrad	0.0020	U	ug/L	P440426	
		Triclopyr	0.0040	U	ug/L	P440426	

Ref. Method and Comment:
EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: LONG BR AT LIBERTY ST JAX

Collection Date/Time: 01/22/2024 13:00

Field ID: G2NE0165

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2462675	EPA 200.7 Rev. 4.4	Calcium	50.4		mg/L	P440359	
		Iron	2.52E+03		ug/L	P440359	
		Magnesium	8.26		mg/L	P440359	
		Manganese	42.4		ug/L	P440359	
		Potassium	1.9		mg/L	P440359	
		Sodium	12.6		mg/L	P440359	
		Strontium	288		ug/L	P440359	
		Tin	3.0	U	ug/L	P440359	
		Titanium	0.75	U	ug/L	P440359	
		Vanadium	2.0	U	ug/L	P440359	
		Zinc	14	I	ug/L	P440359	
	EPA 200.8 Rev. 5.4	Aluminum	63		ug/L	P440359	
		Antimony	0.13	I	ug/L	P440359	
		Arsenic	1.22		ug/L	P440359	
		Barium	52.6		ug/L	P440359	
		Beryllium	0.022	I	ug/L	P440359	
		Boron	43.4		ug/L	P440359	
		Cadmium	0.020	U	ug/L	P440359	
		Chromium	0.52	I	ug/L	P440576	
		Cobalt	0.184		ug/L	P440359	
		Copper	0.79	I	ug/L	P440359	
		Lead	0.62		ug/L	P440359	
		Molybdenum	2.66		ug/L	P440359	
		Nickel	0.97	I	ug/L	P440359	
		Selenium	0.25	I	ug/L	P440359	
		Silver	0.010	U	ug/L	P440359	
		Thallium	0.10	U	ug/L	P440359	
	SM 2340 B-2011	Hardness	160		mg/L	P440359	

Quality Assurance Report

Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P440310

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P440323

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P440359

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Manganese	1.0	U	ug/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: P440359

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	1.8		ug/L
Cobalt	0.020	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Molybdenum	0.15	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P440576

Component	Result	Code	Units
Chromium	0.40	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P440502

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P440505

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P440524

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P440494

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P440443

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P440433

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

Reference Method: EPA 8270E
Batch ID: P440272

Component	Result	Code	Units
Aldrin	0.65	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Bifenthrin	0.50	U	ng/L
Chlorothalonil	3.6	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cypermethrin	1.5	U	ng/L
Dacthal	0.15	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDT-p,p'	0.80	U	ng/L
Delta-BHC	0.40	U	ng/L
Deltamethrin	1.2	U	ng/L
Dichlobenil	0.25	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E
Batch ID: P440272

Component	Result	Code	Units
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.90	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.90	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Ketone	0.40	U	ng/L
Esfenvalerate	0.75	U	ng/L
Ethalfuralin	0.15	U	ng/L
Fenpropathrin	0.25	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Kepone	14	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoxychlor	0.30	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.35	U	ng/L
Oxychlordane	0.30	U	ng/L
PCB-1016	2.0	U	ng/L
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: P440272

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

Reference Method: EPA 8321B
Batch ID: P440203

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P440203

Component	Result	Code	Units
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: P440426

Component	Result	Code	Units
2,4-D	0.0048	I	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
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: P440514

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

Reference Method: SM 2540 C-2015
Batch ID: P440825

Component	Result	Code	Units
TDS	15	U	mg/L

Quality Assurance Report
Method Blank Results

Reference Method: SM 2540 D-2015
Batch ID: P440742

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P440517

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2014
Batch ID: P440569

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: P440310

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

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P440323

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P440359

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	105		P	85 - 115
Iron	111		P	85 - 115
Magnesium	112		P	85 - 115
Manganese	103		P	85 - 115
Potassium	102		P	85 - 115
Sodium	102		P	85 - 115
Strontium	98.2		P	85 - 115
Tin	100		P	85 - 115
Titanium	103		P	85 - 115
Vanadium	100		P	85 - 115
Zinc	95.8		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P440359

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	104		P	85 - 115
Antimony	103		P	85 - 115
Arsenic	101		P	85 - 115
Barium	105		P	85 - 115
Beryllium	94.2		P	85 - 115
Boron	108		P	85 - 115
Cadmium	103		P	85 - 115
Chromium	106		P	85 - 115
Cobalt	103		P	85 - 115
Copper	100		P	85 - 115
Lead	100		P	85 - 115
Molybdenum	100		P	85 - 115
Nickel	102		P	85 - 115
Selenium	101		P	85 - 115
Silver	103		P	85 - 115
Thallium	101		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P440576

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chromium	101		P	85 - 115

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P440502

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P440505

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P440524

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	98.4		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P440494

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P440443

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P440433

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

Reference Method: EPA 8270E
Batch ID: P440272

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	100		F	30 - 96.0
Alpha-BHC	99.1		P	70 - 109
Alpha-Chlordane	86.1		P	45 - 107
Beta-BHC	110		P	64 - 138
Beta-Cyfluthrin	118		P	17 - 141
Bifenthrin	113		P	10 - 113
Chlorothalonil	70.8		P	26 - 180
Cis-Nonachlor	87.3		P	37 - 102
Cypermethrin	79.2		P	20 - 133
Dacthal	87.5		P	69 - 114
DDD-p,p'	103		P	42 - 105
DDE-p,p'	89.3		P	42 - 106
DDT-p,p'	95.8		P	42 - 107
Delta-BHC	116		P	67 - 144
Deltamethrin	94.7		P	15 - 149
Dichlobenil	59.8		P	46 - 117

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P440272

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Dicofol	97.6		P	34 - 114
Dieldrin	94.7		P	50 - 108
Endosulfan I	82.6		P	55 - 104
Endosulfan II	84.1		P	51 - 111
Endosulfan Sulfate	115		P	56 - 121
Endrin	69.7		P	10 - 106
Endrin Aldehyde	51.3		P	34 - 114
Endrin Ketone	122		P	63 - 177
Esfenvalerate	112		P	29 - 143
Ethalfuralin	101		F	46 - 96.0
Fenpropathrin	85.3		P	28 - 115
Gamma-BHC	102		P	65 - 121
Gamma-Chlordane	103		P	39 - 103
Heptachlor	91.2		P	39 - 94.0
Heptachlor Epoxide	114		F	54 - 104
Hexachlorobenzene	99.4		P	36 - 100
Kepone	85.7		P	10 - 225
Lambda-Cyhalothrin	129		P	10 - 135
Methoprene	108		P	10 - 109
Methoxychlor	95.4		P	52 - 112
MGK-264	112		P	44 - 117
Mirex	74.9		P	20 - 90.0
Oxychlordane	98.1		P	44 - 102
PCB-1016	68.2		P	45 - 107
PCB-1260	77.1		P	40 - 118
Permethrin	121		P	18 - 135
Phenothrin	90.1		P	10 - 102
Piperonyl Butoxide	103		P	28 - 156
Prallethrin	96.3		P	28 - 113
Tau-Fluvalinate	118		P	10 - 123
Tetramethrin	136		P	18 - 158
Trans-Nonachlor	94.0		P	39 - 104
Triclosan Methyl	62.8		P	54 - 108
Trifluralin	90.8		P	46 - 97.0

Reference Method: EPA 8276
Batch ID: P440272

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	104		P	52 - 117
Toxaphene	123		P	44 - 125

Reference Method: EPA 8321B
Batch ID: P440203

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	106		P	40 - 150
AMPA	101		P	40 - 160
Endothall	101		P	40 - 160
Glufosinate	99.5		P	40 - 160
Glyphosate	99.2		P	40 - 160
Sucralose	106		P	40 - 150

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P440426

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	123		P	40 - 150
2,4,5-T	105		P	40 - 150
Acetaminophen	92.3		P	30 - 150
Acetamiprid	95.2		P	40 - 150
Afidopyropen	75.3		P	30 - 150
Bentazon	96.0		P	30 - 150
Benzovindiflupyr	92.6		P	40 - 150
Carbamazepine	87.5		P	40 - 150
Clothianidin	99.1		P	40 - 150
Dinotefuran	108		P	40 - 150
Diuron	86.0		P	40 - 150
Fenuron	100		P	40 - 150
Fluridone	96.7		P	40 - 150
Hydrocodone	115		P	40 - 150
Ibuprofen	79.1		P	40 - 150
Imazapyr	97.1		P	40 - 150
Imidacloprid	97.0		P	40 - 150
Linuron	81.4		P	40 - 150
Mandestrobin	95.6		P	40 - 150
MCPP	97.9		P	40 - 150
Naproxen	72.6		P	40 - 150
Primidone	90.6		P	40 - 150
Pyraclostrobin	93.9		P	40 - 150
Silvex	92.1		P	40 - 150
Thiamethoxam	108		P	40 - 150
Tolfenpyrad	61.8		P	30 - 150
Triclopyr	116		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P440514

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.0		P	92 - 105

Reference Method: SM 2540 C-2015
Batch ID: P440825

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	95.2		P	85 - 115

Reference Method: SM 2540 D-2015
Batch ID: P440742

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	97.6		P	85 - 115

Reference Method: SM 4500-F- C-2011
Batch ID: P440517

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	105		P	94 - 106

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-2014
Batch ID: P440569

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P440359

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2461925	Calcium	101		P	80 - 120
2461925	Iron	110	110	P/P	80 - 120
2461925	Magnesium	108	108	P/P	80 - 120
2461925	Manganese	101	101	P/P	80 - 120
2461925	Potassium	101	101	P/P	80 - 120
2461925	Sodium	101	101	P/P	80 - 120
2461925	Strontium	95.6	96.9	P/P	80 - 120
2461925	Tin	98.6	98.9	P/P	80 - 120
2461925	Titanium	102	103	P/P	80 - 120
2461925	Vanadium	99.3	99.8	P/P	80 - 120
2461925	Zinc	92.9	93.9	P/P	80 - 120
2462467	Calcium	100		P	80 - 120
2462467	Iron	110		P	80 - 120
2462467	Magnesium	103		P	80 - 120
2462467	Manganese	99.8		P	80 - 120
2462467	Potassium	102		P	80 - 120
2462467	Sodium	101		P	80 - 120
2462467	Strontium	95.9		P	80 - 120
2462467	Tin	98.1		P	80 - 120
2462467	Titanium	101		P	80 - 120
2462467	Vanadium	99.7		P	80 - 120
2462467	Zinc	92.3		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P440359

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2461925	Aluminum	102	103	P/P	80 - 120
2461925	Antimony	103	104	P/P	80 - 120
2461925	Arsenic	101	101	P/P	80 - 120
2461925	Barium	103	104	P/P	80 - 120
2461925	Beryllium	98.0	97.4	P/P	80 - 120
2461925	Boron	107	106	P/P	80 - 120
2461925	Cadmium	101	105	P/P	80 - 120
2461925	Chromium	108	108	P/P	80 - 120
2461925	Cobalt	101	102	P/P	80 - 120
2461925	Copper	98.0	98.9	P/P	80 - 120
2461925	Lead	99.5	100	P/P	80 - 120
2461925	Molybdenum	101	103	P/P	80 - 120
2461925	Nickel	101	102	P/P	80 - 120
2461925	Selenium	101	101	P/P	80 - 120
2461925	Silver	101	102	P/P	80 - 120
2461925	Thallium	102	103	P/P	80 - 120
2462467	Aluminum	99.2		P	80 - 120
2462467	Antimony	103		P	80 - 120
2462467	Arsenic	101		P	80 - 120
2462467	Barium	103		P	80 - 120
2462467	Beryllium	98.3		P	80 - 120
2462467	Boron	102		P	80 - 120
2462467	Cadmium	102		P	80 - 120
2462467	Chromium	106		P	80 - 120
2462467	Cobalt	101		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P440359

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2462467	Copper	97.6		P	80 - 120
2462467	Lead	99.2		P	80 - 120
2462467	Molybdenum	102		P	80 - 120
2462467	Nickel	99.5		P	80 - 120
2462467	Selenium	101		P	80 - 120
2462467	Silver	99.5		P	80 - 120
2462467	Thallium	103		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P440576

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2463528	Chromium	109	108	P/P	80 - 120
2463555	Chromium	91.7		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P440502

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2462885	Chloride	107		P	90 - 110
2462948	Chloride	104		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P440505

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2462885	Sulfate	102		P	90 - 110
2462948	Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P440524

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2462625	Ammonia-N	95.8	90.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P440494

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2462636	Kjeldahl Nitrogen	113	113	F/F	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P440443

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2462581	NO2NO3-N	100	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P440433

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2462648	Total-P	108	106	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P440272

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2462441	Aldrin	75.2	72.0	P/P	24 - 81.0
2462441	Alpha-BHC	86.9	87.4	P/P	65 - 110
2462441	Alpha-Chlordane	98.0	96.9	P/P	43 - 119
2462441	Beta-BHC	107	129	P/P	54 - 165
2462441	Beta-Cyfluthrin	116	115	P/P	27 - 165
2462441	Bifenthrin	100	109	P/P	17 - 117
2462441	Chlorothalonil	105	81.6	P/P	10 - 255
2462441	Cis-Nonachlor	72.9	68.3	P/P	34 - 98.0
2462441	Cypermethrin	42.5	54.3	P/P	25 - 143
2462441	Dacthal	113	114	P/P	55 - 139
2462441	DDD-p,p'	79.8	81.3	P/P	30 - 109
2462441	DDE-p,p'	88.5	106	P/P	35 - 106
2462441	DDT-p,p'	95.3	89.7	P/P	41 - 101
2462441	Delta-BHC	146	111	P/P	58 - 165
2462441	Deltamethrin	82.0	113	P/P	10 - 194
2462441	Dichlobenil	62.4	57.3	P/P	22 - 114
2462441	Dicofol	92.6	101	P/P	17 - 133
2462441	Dieldrin	94.9	104	P/P	45 - 129
2462441	Endosulfan I	111	93.5	F/P	49 - 104
2462441	Endosulfan II	99.7	85.0	P/P	37 - 117
2462441	Endosulfan Sulfate	100	109	P/P	38 - 128
2462441	Endrin	35.9	41.7	P/P	35 - 116
2462441	Endrin Aldehyde	24.3	32.3	P/P	19 - 108
2462441	Endrin Ketone	105	87.8	P/P	44 - 134
2462441	Esfenvalerate	69.1	91.1	P/P	27 - 176
2462441	Ethalfuralin	68.6	72.7	P/P	49 - 100
2462441	Fenpropathrin	34.9	46.0	P/P	34 - 117
2462441	Gamma-BHC	108	122	P/P	59 - 129
2462441	Gamma-Chlordane	82.8	95.2	P/P	33 - 107
2462441	Heptachlor	100	75.2	F/P	37 - 94.0
2462441	Heptachlor Epoxide	88.0	86.0	P/P	38 - 118
2462441	Hexachlorobenzene	95.0	82.4	P/P	35 - 97.0
2462441	Kepone	86.3	95.1	P/P	10 - 221
2462441	Lambda-Cyhalothrin	115	144	P/P	23 - 190
2462441	Methoprene	97.2	102	P/P	21 - 109
2462441	Methoxychlor	98.1	94.3	P/P	46 - 118
2462441	MGK-264	114	95.7	P/P	39 - 122
2462441	Mirex	31.8	37.8	P/P	25 - 90.0
2462441	Oxychlordane	73.3	71.7	P/P	42 - 100
2462441	Permethrin	98.1	101	P/P	33 - 181
2462441	Phenothrin	86.5	98.3	P/P	12 - 125
2462441	Piperonyl Butoxide	67.7	81.6	P/P	10 - 178
2462441	Prallethrin	74.8	73.5	P/P	24 - 122
2462441	Tau-Fluvalinate	59.9	80.2	P/P	13 - 151
2462441	Tetramethrin	143	154	P/P	16 - 172
2462441	Trans-Nonachlor	77.7	72.2	P/P	39 - 100
2462441	Triclosan Methyl	30.4	32.8	F/F	43 - 110
2462441	Trifluralin	84.3	81.0	P/P	45 - 94.0
2462480	PCB-1016	61.8	60.2	P/P	45 - 107
2462480	PCB-1260	68.1	66.9	P/P	40 - 112

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8276
Batch ID: P440272

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2462480	Chlordane	99.9	106	P/P	43 - 123
2462480	Toxaphene	126	135	P/P	27 - 156

Reference Method: EPA 8321B
Batch ID: P440203

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2462397	Acesulfame K	105	106	P/P	40 - 150
2462397	AMPA	106	108	P/P	40 - 160
2462397	Endothall	107	108	P/P	40 - 160
2462397	Glufosinate	104	109	P/P	40 - 160
2462397	Glyphosate	104	101	P/P	40 - 160
2462397	Sucralose	96.9	99.6	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P440426

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2462667	2,4,5-T	91.9	84.9	P/P	40 - 150
2462667	Acetamiprid	96.3	98.7	P/P	40 - 150
2462667	Afidopyropen	94.4	97.6	P/P	30 - 150
2462667	Benzovindiflupyr	91.4	106	P/P	40 - 150
2462667	Carbamazepine	87.7	93.5	P/P	40 - 150
2462667	Clothianidin	111	119	P/P	40 - 150
2462667	Dinotefuran	111	123	P/P	40 - 150
2462667	Diuron	83.3	84.7	P/P	40 - 150
2462667	Fenuron	91.8	91.6	P/P	40 - 150
2462667	Fluridone	90.7	98.5	P/P	40 - 150
2462667	Hydrocodone	98.6	116	P/P	40 - 150
2462667	Ibuprofen	81.1	74.2	P/P	40 - 150
2462667	Imazapyr	99.2	109	P/P	40 - 150
2462667	Imidacloprid	127	133	P/P	40 - 150
2462667	Linuron	84.0	85.1	P/P	40 - 150
2462667	Mandestrobin	99.4	110	P/P	40 - 150
2462667	MCPP	91.9	93.9	P/P	40 - 150
2462667	Naproxen	76.2	73.5	P/P	40 - 150
2462667	Primidone	95.9	106	P/P	40 - 150
2462667	Pyraclostrobin	86.5	99.0	P/P	40 - 150
2462667	Silvex	80.9	84.9	P/P	40 - 150
2462667	Thiamethoxam	121	118	P/P	40 - 150
2462667	Tolfenpyrad	53.1	68.2	P/P	30 - 150
2462667	Triclopyr	90.9	89.8	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P440517

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2462025	Fluoride	103	103	P/P	94 - 106

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: SM 5310 B-2014
Batch ID: P440569

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2462625	Organic Carbon	100	98.8	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P440310

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2462622	Color (true)	2.05	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P440323

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2462609	Turbidity	5.00	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P440359

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2461925	Calcium	0.240	Spike	P	0 - 20
2461925	Iron	0.153	Spike	P	0 - 20
2461925	Magnesium	0.357	Spike	P	0 - 20
2461925	Manganese	0.908	Spike	P	0 - 20
2461925	Potassium	0.683	Spike	P	0 - 20
2461925	Sodium	0.221	Spike	P	0 - 20
2461925	Strontium	1.30	Spike	P	0 - 20
2461925	Tin	0.312	Spike	P	0 - 20
2461925	Titanium	0.610	Spike	P	0 - 20
2461925	Vanadium	0.499	Spike	P	0 - 20
2461925	Zinc	1.09	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P440359

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2461925	Aluminum	1.86	Spike	P	0 - 20
2461925	Antimony	1.12	Spike	P	0 - 20
2461925	Arsenic	0.598	Spike	P	0 - 20
2461925	Barium	0.899	Spike	P	0 - 20
2461925	Beryllium	0.632	Spike	P	0 - 20
2461925	Boron	0.818	Spike	P	0 - 20
2461925	Cadmium	3.21	Spike	P	0 - 20
2461925	Chromium	0.605	Spike	P	0 - 20
2461925	Cobalt	1.04	Spike	P	0 - 20
2461925	Copper	0.893	Spike	P	0 - 20
2461925	Lead	0.791	Spike	P	0 - 20
2461925	Molybdenum	1.61	Spike	P	0 - 20
2461925	Nickel	1.17	Spike	P	0 - 20
2461925	Selenium	0.394	Spike	P	0 - 20
2461925	Silver	0.287	Spike	P	0 - 20
2461925	Thallium	1.00	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P440576

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2463528	Chromium	1.15	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P440502

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2462885	Chloride	0.883	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P440505

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2462885	Sulfate	0.491	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P440524

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2462625	Ammonia-N	3.52	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P440494

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2462636	Kjeldahl Nitrogen	0.369	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P440443

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2462581	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P440433

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2462648	Total-P	0.916	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P440272

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2462441	Aldrin	4.42	Spike	P	0 - 41
2462441	Alpha-BHC	0.597	Spike	P	0 - 25

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P440272

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2462441	Alpha-Chlordane	1.12	Spike	P	0 - 32
2462441	Beta-BHC	18.9	Spike	P	0 - 33
2462441	Beta-Cyfluthrin	1.23	Spike	P	0 - 43
2462441	Bifenthrin	7.95	Spike	P	0 - 52
2462441	Chlorothalonil	24.7	Spike	P	0 - 82
2462441	Cis-Nonachlor	6.48	Spike	P	0 - 33
2462441	Cypermethrin	24.3	Spike	P	0 - 51
2462441	Dacthal	1.04	Spike	P	0 - 27
2462441	DDD-p,p'	1.81	Spike	P	0 - 39
2462441	DDE-p,p'	17.8	Spike	P	0 - 31
2462441	DDT-p,p'	5.99	Spike	P	0 - 29
2462441	Delta-BHC	27.3	Spike	P	0 - 35
2462441	Deltamethrin	31.9	Spike	P	0 - 100
2462441	Dichlobenil	8.50	Spike	P	0 - 40
2462441	Dicofol	8.32	Spike	P	0 - 37
2462441	Dieldrin	9.36	Spike	P	0 - 27
2462441	Endosulfan I	17.0	Spike	P	0 - 23
2462441	Endosulfan II	15.9	Spike	P	0 - 34
2462441	Endosulfan Sulfate	8.30	Spike	P	0 - 36
2462441	Endrin	14.9	Spike	P	0 - 45
2462441	Endrin Aldehyde	28.4	Spike	P	0 - 76
2462441	Endrin Ketone	18.1	Spike	P	0 - 43
2462441	Esfenvalerate	27.5	Spike	P	0 - 51
2462441	Ethalfuralin	5.85	Spike	P	0 - 22
2462441	Fenpropathrin	27.3	Spike	P	0 - 49
2462441	Gamma-BHC	11.6	Spike	P	0 - 28
2462441	Gamma-Chlordane	13.9	Spike	P	0 - 40
2462441	Heptachlor	28.3	Spike	P	0 - 29
2462441	Heptachlor Epoxide	2.35	Spike	P	0 - 33
2462441	Hexachlorobenzene	14.2	Spike	P	0 - 36
2462441	Kepone	9.67	Spike	P	0 - 85
2462441	Lambda-Cyhalothrin	22.6	Spike	P	0 - 55
2462441	Methoprene	4.85	Spike	P	0 - 53
2462441	Methoxychlor	3.94	Spike	P	0 - 50
2462441	MGK-264	17.8	Spike	P	0 - 43
2462441	Mirex	17.0	Spike	P	0 - 40
2462441	Oxychlordane	2.19	Spike	P	0 - 31
2462441	Permethrin	2.94	Spike	P	0 - 50
2462441	Phenothrin	12.7	Spike	P	0 - 58
2462441	Piperonyl Butoxide	14.0	Spike	P	0 - 100
2462441	Prallethrin	1.71	Spike	P	0 - 39
2462441	Tau-Fluvalinate	28.9	Spike	P	0 - 54
2462441	Tetramethrin	7.94	Spike	P	0 - 51
2462441	Trans-Nonachlor	7.34	Spike	P	0 - 39
2462441	Triclosan Methyl	7.54	Spike	P	0 - 31
2462441	Trifluralin	4.02	Spike	P	0 - 22
2462480	PCB-1016	2.67	Spike	P	0 - 25
2462480	PCB-1260	1.68	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8276
Batch ID: P440272

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2462480	Chlordane	6.28	Spike	P	0 - 28
2462480	Toxaphene	6.87	Spike	P	0 - 27

Reference Method: EPA 8321B
Batch ID: P440203

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2462397	Acesulfame K	0.982	Spike	P	0 - 30
2462397	AMPA	2.02	Spike	P	0 - 30
2462397	Endothall	0.904	Spike	P	0 - 30
2462397	Glufosinate	4.69	Spike	P	0 - 30
2462397	Glyphosate	3.19	Spike	P	0 - 30
2462397	Sucralose	2.71	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P440426

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2462667	2,4-D	7.56	Spike	P	0 - 30
2462667	2,4,5-T	7.93	Spike	P	0 - 30
2462667	Acetaminophen	23.5	Spike	P	0 - 30
2462667	Acetamiprid	2.41	Spike	P	0 - 30
2462667	Afidopyropen	3.33	Spike	P	0 - 30
2462667	Bentazon	25.4	Spike	P	0 - 30
2462667	Benzovindiflupyr	14.4	Spike	P	0 - 30
2462667	Carbamazepine	6.42	Spike	P	0 - 30
2462667	Clothianidin	6.74	Spike	P	0 - 30
2462667	Dinotefuran	9.81	Spike	P	0 - 30
2462667	Diuron	1.70	Spike	P	0 - 30
2462667	Fenuron	0.218	Spike	P	0 - 30
2462667	Fluridone	8.18	Spike	P	0 - 30
2462667	Hydrocodone	16.3	Spike	P	0 - 30
2462667	Ibuprofen	8.87	Spike	P	0 - 30
2462667	Imazapyr	6.61	Spike	P	0 - 30
2462667	Imidacloprid	3.62	Spike	P	0 - 30
2462667	Linuron	1.19	Spike	P	0 - 30
2462667	Mandestrobin	10.2	Spike	P	0 - 30
2462667	MCPP	2.08	Spike	P	0 - 30
2462667	Naproxen	2.85	Spike	P	0 - 30
2462667	Primidone	9.77	Spike	P	0 - 30
2462667	Pyraclostrobin	13.5	Spike	P	0 - 30
2462667	Silvex	4.81	Spike	P	0 - 30
2462667	Thiamethoxam	1.88	Spike	P	0 - 30
2462667	Tolfenpyrad	25.1	Spike	P	0 - 30
2462667	Triclopyr	1.27	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: SM 2320 B-2011
Batch ID: P440514

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2462025	Total Alkalinity	2.66	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P440825

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2462453	TDS	5.08	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P440517

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2462025	Fluoride	0.0	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2014
Batch ID: P440569

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2462625	Organic Carbon	1.03	Spike	P	0 - 15

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

Quality Assurance Report Surrogates

Lab Sample ID: 2462665
Field Sample ID: 20030692

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	50.7	P	37 - 129
EPA 8270E	Decachlorobiphenyl	74.5	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	33.4	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	56.6	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	96.6	P	23 - 110
EPA 8276	PCNB	101	P	51 - 130

Lab Sample ID: 2462667
Field Sample ID: 20030761

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	102	P	30 - 160
EPA 8321B	Acetaminophen-d4	86.0	P	30 - 160
EPA 8321B	Carbamazepine-d10	87.1	P	30 - 160
EPA 8321B	Diuron-d6	75.5	P	30 - 160
EPA 8321B	Endothall-d6	102	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	95.9	P	30 - 160
EPA 8321B	Ibuprofen-d3	74.4	P	30 - 160
EPA 8321B	Primidone-d5	95.8	P	30 - 160
EPA 8321B	Sucralose-d6	105	P	30 - 160

Lab Sample ID: 2462695
Field Sample ID: 20030792

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	88.8	P	30 - 160
EPA 8321B	Acetaminophen-d4	80.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	77.7	P	30 - 160
EPA 8321B	Diuron-d6	59.4	P	30 - 160
EPA 8321B	Endothall-d6	113	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	99.4	P	30 - 160
EPA 8321B	Ibuprofen-d3	54.5	P	30 - 160
EPA 8321B	Primidone-d5	88.0	P	30 - 160
EPA 8321B	Sucralose-d6	89.2	P	30 - 160

Quality Assurance Report

Calibration Verification

Reference Method: DEP SOP: NU-094-1
Run ID: A123770
Included Lab Sample IDs: 2462650, 2462652

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: A123773
Included Lab Sample IDs: 2462650, 2462652

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	99.0	P/P	95 - 105

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A123802
Included Lab Sample IDs: 2462650, 2462652

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

Reference Method: EPA 8321B
Run ID: A123812
Included Lab Sample IDs: 2462667, 2462695

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	124	113	P/P	60 - 160
Sucralose	101	105	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A123813
Included Lab Sample IDs: 2462667, 2462695

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	99.6	98.5	P/P	60 - 160
Endothall	103	99.9	P/P	60 - 160
Glufosinate	101	105	P/P	60 - 160
Glyphosate	106	108	P/P	60 - 160

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A123819
Included Lab Sample IDs: 2462651, 2462653

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

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A123835
Included Lab Sample IDs: 2462673, 2462674, 2462675, 2462676

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	102	101	P/P	95 - 105
Calcium	99.7	100	P/P	90 - 110
Calcium	100	98.1	P/P	90 - 110
Iron	101	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A123835

Included Lab Sample IDs: 2462673, 2462674, 2462675, 2462676

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Iron	101	99.1	P/P	90 - 110
Iron	102	102	P/P	95 - 105
Magnesium	101	99.5	P/P	90 - 110
Magnesium	101	101	P/P	90 - 110
Magnesium	102	102	P/P	95 - 105
Manganese	103	103	P/P	90 - 110
Manganese	103	102	P/P	90 - 110
Manganese	103	103	P/P	95 - 105
Potassium	100	101	P/P	95 - 105
Potassium	99.2	99.5	P/P	90 - 110
Potassium	99.5	98.2	P/P	90 - 110
Sodium	94.6	95.3	P/P	90 - 110
Sodium	95.3	93.7	P/P	90 - 110
Sodium	97.6	96.7	P/P	95 - 105
Strontium	96.6	97.2	P/P	90 - 110
Strontium	97.2	95.4	P/P	90 - 110
Strontium	98.9	97.0	P/P	95 - 105
Tin	103	103	P/P	90 - 110
Tin	103	103	P/P	90 - 110
Tin	103	103	P/P	95 - 105
Titanium	103	103	P/P	95 - 105
Titanium	103	103	P/P	90 - 110
Titanium	103	103	P/P	90 - 110
Vanadium	101	100	P/P	95 - 105
Vanadium	99.5	99.9	P/P	90 - 110
Vanadium	99.9	99.0	P/P	90 - 110
Zinc	102	99.9	P/P	95 - 105
Zinc	98.8	99.6	P/P	90 - 110
Zinc	99.6	97.9	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A123839

Included Lab Sample IDs: 2462673, 2462674, 2462675, 2462676

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	100	97.4	P/P	90 - 110
Aluminum	101	100	P/P	90 - 110
Antimony	98.1	99.2	P/P	90 - 110
Antimony	99.4	98.5	P/P	90 - 110
Arsenic	96.3	97.3	P/P	90 - 110
Arsenic	96.7	96.7	P/P	90 - 110
Barium	98.7	99.3	P/P	90 - 110
Barium	99.3	98.6	P/P	90 - 110
Beryllium	97.0	96.3	P/P	90 - 110
Beryllium	97.5	97.7	P/P	90 - 110
Boron	102	102	P/P	90 - 110
Boron	98.6	94.7	P/P	90 - 110
Cadmium	97.2	98.5	P/P	90 - 110
Cadmium	97.3	97.6	P/P	90 - 110
Chromium	97.8	98.5	P/P	90 - 110
Cobalt	96.1	96.1	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A123839

Included Lab Sample IDs: 2462673, 2462674, 2462675, 2462676

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cobalt	96.3	96.0	P/P	90 - 110
Copper	95.6	95.8	P/P	90 - 110
Copper	95.9	95.6	P/P	90 - 110
Lead	96.6	96.5	P/P	90 - 110
Lead	97.1	96.9	P/P	90 - 110
Molybdenum	97.8	98.3	P/P	90 - 110
Molybdenum	98.0	98.9	P/P	90 - 110
Nickel	95.6	96.0	P/P	90 - 110
Nickel	96.3	95.9	P/P	90 - 110
Selenium	97.1	98.5	P/P	90 - 110
Selenium	98.4	98.4	P/P	90 - 110
Silver	98.3	98.5	P/P	90 - 110
Silver	98.7	98.4	P/P	90 - 110
Thallium	99.0	99.6	P/P	90 - 110
Thallium	99.2	98.3	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A123840

Included Lab Sample IDs: 2462651

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

Reference Method: SM 2320 B-2011

Run ID: A123848

Included Lab Sample IDs: 2462650, 2462652

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.1	95.4	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A123848

Included Lab Sample IDs: 2462650, 2462652

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	105	108	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A123853

Included Lab Sample IDs: 2462651, 2462653

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.1	97.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A123855

Included Lab Sample IDs: 2462653

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.2	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8276
Run ID: A123870
Included Lab Sample IDs: 2462665

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	102		P	80 - 120
Toxaphene	109		P	80 - 120

Reference Method: SM 5310 B-2014
Run ID: A123872
Included Lab Sample IDs: 2462651, 2462653

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	118	96.2	P/P	70 - 130

Reference Method: EPA 8270E
Run ID: A123883
Included Lab Sample IDs: 2462665

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	97.4		P	80 - 120
PCB-1260	98.8		P	80 - 120

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A123886
Included Lab Sample IDs: 2462651, 2462653

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

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A123910
Included Lab Sample IDs: 2462673, 2462674, 2462675

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chromium	96.7	98.0	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A123947
Included Lab Sample IDs: 2462667, 2462695

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	120	117	P/P	50 - 150
2,4,5-T	90.5	93.8	P/P	50 - 150
Acetaminophen	109	108	P/P	60 - 160
Acetamiprid	113	113	P/P	50 - 150
Afidopyropen	92.9	125	P/P	50 - 150
Bentazon	108	103	P/P	50 - 160
Bentazon	95.9	90.4	P/P	50 - 160
Benzovindiflupyr	104	104	P/P	50 - 150
Carbamazepine	111	111	P/P	60 - 150
Clothianidin	105	105	P/P	60 - 150
Dinotefuran	110	105	P/P	50 - 150
Diuron	104	111	P/P	60 - 160
Fenuron	111	109	P/P	60 - 150
Fluridone	112	109	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A123947

Included Lab Sample IDs: 2462667, 2462695

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Hydrocodone	123	120	P/P	60 - 150
Ibuprofen	87.7	79.1	P/P	50 - 160
Imazapyr	89.1	84.3	P/P	50 - 150
Imidacloprid	99.0	99.3	P/P	60 - 150
Linuron	108	102	P/P	60 - 150
Mandestrobin	108	113	P/P	50 - 150
MCPP	94.4	93.0	P/P	50 - 150
Naproxen	102	123	P/P	50 - 160
Primidone	98.3	102	P/P	60 - 150
Pyraclostrobin	115	115	P/P	60 - 150
Silvex	103	103	P/P	50 - 150
Thiamethoxam	116	113	P/P	50 - 150
Tolfenpyrad	103	109	P/P	60 - 150
Triclopyr	105	89.9	P/P	50 - 150

Reference Method: EPA 8270E

Run ID: A124107

Included Lab Sample IDs: 2462665

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	101		P	80 - 120
Alpha-BHC	101		P	80 - 120
Alpha-Chlordane	111		P	80 - 120
Beta-BHC	111		P	80 - 120
Beta-Cyfluthrin	103		P	80 - 120
Bifenthrin	96.4		P	80 - 120
Chlorothalonil	104		P	80 - 120
Cis-Nonachlor	98.5		P	80 - 120
Cypermethrin	98.9		P	80 - 120
Dacthal	110		P	80 - 120
DDD-p,p'	101		P	80 - 120
DDE-p,p'	102		P	80 - 120
DDT-p,p'	99.9		P	80 - 120
Delta-BHC	102		P	80 - 120
Deltamethrin	104		P	80 - 120
Dichlobenil	93.9		P	80 - 120
Dicofol	96.5		P	80 - 120
Dieldrin	103		P	80 - 120
Endosulfan I	98.4		P	80 - 120
Endosulfan II	101		P	80 - 120
Endosulfan Sulfate	103		P	80 - 120
Endrin	100		P	80 - 120
Endrin Aldehyde	106		P	80 - 120
Endrin Ketone	103		P	80 - 120
Esfenvalerate	102		P	80 - 120
Ethalfuralin	107		P	80 - 120
Fenpropathrin	86.3		P	80 - 120
Gamma-BHC	112		P	80 - 120
Gamma-Chlordane	85.7		P	80 - 120
Heptachlor	92.0		P	80 - 120
Heptachlor Epoxide	94.2		P	80 - 120

Quality Assurance Report

Calibration Verification

Reference Method: EPA 8270E

Run ID: A124107

Included Lab Sample IDs: 2462665

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Hexachlorobenzene	101		P	80 - 120
Kepone	93.3		P	80 - 120
Lambda-Cyhalothrin	101		P	80 - 120
Methoprene	97.4		P	80 - 120
Methoxychlor	101		P	80 - 120
MGK-264	89.3		P	80 - 120
Mirex	90.0		P	80 - 120
Oxychlordane	88.9		P	80 - 120
Permethrin	103		P	80 - 120
Phenothrin	96.9		P	80 - 120
Piperonyl Butoxide	91.5		P	80 - 120
Prallethrin	93.9		P	80 - 120
Tau-Fluvalinate	112		P	80 - 120
Tetramethrin	102		P	80 - 120
Trans-Nonachlor	116		P	80 - 120
Triclosan Methyl	83.8		P	80 - 120
Trifluralin	103		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			Precision SMP	MS
			LCS				
DEP SOP: NU-094-1	Color (true)	103				2.05	
EPA 180.1 Rev. 2.0	Turbidity	104				5.00	
EPA 200.7 Rev. 4.4	Calcium	105	101	100			0.240
	Iron	111	110	110	110		0.153
	Magnesium	112	108	108	103		0.357
	Manganese	103	101	101	99.8		0.908
	Potassium	102	101	101	102		0.683
	Sodium	102	101	101	101		0.221
	Strontium	98.2	95.6	96.9	95.9		1.30
	Tin	100	98.6	98.9	98.1		0.312
	Titanium	103	102	103	101		0.610
	Vanadium	100	99.3	99.8	99.7		0.499
	Zinc	95.8	92.9	93.9	92.3		1.09
EPA 200.8 Rev. 5.4	Aluminum	104	102	103	99.2		1.86
	Antimony	103	103	104	103		1.12
	Arsenic	101	101	101	101		0.598
	Barium	105	103	104	103		0.899
	Beryllium	94.2	98.0	97.4	98.3		0.632
	Boron	108	107	106	102		0.818
	Cadmium	103	101	105	102		3.21
	Chromium	106	108	108	106		0.605
	Chromium	101	109	108	91.7		1.15
	Cobalt	103	101	102	101		1.04
	Copper	100	98.0	98.9	97.6		0.893
	Lead	100	99.5	100	99.2		0.791
	Molybdenum	100	101	103	102		1.61
	Nickel	102	101	102	99.5		1.17
	Selenium	101	101	101	101		0.394
	Silver	103	101	102	99.5		0.287
	Thallium	101	102	103	103		1.00
EPA 300.0 Rev. 2.1	Chloride	107	107	104		0.883	
	Sulfate	107	102	101		0.491	
EPA 350.1 Rev. 2.0	Ammonia-N	98.4	95.8	90.6			3.52
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103	113	113			0.369
EPA 353.2 Rev. 2.0	NO2NO3-N	102	100	100			0.0
EPA 365.1 Rev. 2.0	Total-P	105	108	106			0.916
EPA 8270E	Aldrin	100	75.2	72.0			4.42
	Alpha-BHC	99.1	86.9	87.4			0.597
	Alpha-Chlordane	86.1	98.0	96.9			1.12
	Beta-BHC	110	107	129			18.9
	Beta-Cyfluthrin	118	116	115			1.23
	Bifenthrin	113	100	109			7.95
	Chlorothalonil	70.8	105	81.6			24.7
	Cis-Nonachlor	87.3	72.9	68.3			6.48
	Cypermethrin	79.2	42.5	54.3			24.3
	Dacthal	87.5	113	114			1.04
	DDD-p,p'	103	79.8	81.3			1.81
	DDE-p,p'	89.3	88.5	106			17.8
	DDT-p,p'	95.8	95.3	89.7			5.99
	Delta-BHC	116	146	111			27.3
	Deltamethrin	94.7	82.0	113			31.9
	Dichlobenil	59.8	62.4	57.3			8.50
	Dicofol	97.6	92.6	101			8.32
	Dieldrin	94.7	94.9	104			9.36

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Endosulfan I	82.6	111	93.5		17.0
	Endosulfan II	84.1	99.7	85.0		15.9
	Endosulfan Sulfate	115	100	109		8.30
	Endrin	69.7	35.9	41.7		14.9
	Endrin Aldehyde	51.3	24.3	32.3		28.4
	Endrin Ketone	122	105	87.8		18.1
	Esfenvalerate	112	69.1	91.1		27.5
	Ethalfuralin	101	68.6	72.7		5.85
	Fenpropathrin	85.3	34.9	46.0		27.3
	Gamma-BHC	102	108	122		11.6
	Gamma-Chlordane	103	82.8	95.2		13.9
	Heptachlor	91.2	100	75.2		28.3
	Heptachlor Epoxide	114	88.0	86.0		2.35
	Hexachlorobenzene	99.4	95.0	82.4		14.2
	Kepone	85.7	86.3	95.1		9.67
	Lambda-Cyhalothrin	129	115	144		22.6
	Methoprene	108	97.2	102		4.85
	Methoxychlor	95.4	98.1	94.3		3.94
	MGK-264	112	114	95.7		17.8
	Mirex	74.9	31.8	37.8		17.0
	Oxychlordane	98.1	73.3	71.7		2.19
	PCB-1016	68.2	61.8	60.2		2.67
	PCB-1260	77.1	68.1	66.9		1.68
	Permethrin	121	98.1	101		2.94
	Phenothrin	90.1	86.5	98.3		12.7
	Piperonyl Butoxide	103	67.7	81.6		14.0
	Prallethrin	96.3	74.8	73.5		1.71
	Tau-Fluvalinate	118	59.9	80.2		28.9
	Tetramethrin	136	143	154		7.94
	Trans-Nonachlor	94.0	77.7	72.2		7.34
	Triclosan Methyl	62.8	30.4	32.8		7.54
	Trifluralin	90.8	84.3	81.0		4.02
EPA 8276	Chlordane	104	99.9	106		6.28
	Toxaphene	123	126	135		6.87
EPA 8321B	2,4-D	123				7.56
	2,4,5-T	105	91.9	84.9		7.93
	Acesulfame K	106	105	106		0.982
	Acetaminophen	92.3				23.5
	Acetamiprid	95.2	96.3	98.7		2.41
	Afidopyropen	75.3	94.4	97.6		3.33
	AMPA	101	106	108		2.02
	Bentazon	96.0				25.4
	Benzovindiflupyr	92.6	91.4	106		14.4
	Carbamazepine	87.5	87.7	93.5		6.42
	Clothianidin	99.1	119	111		6.74
	Dinotefuran	108	123	111		9.81
	Diuron	86.0	83.3	84.7		1.70
	Endothall	101	107	108		0.904
	Fenuron	100	91.6	91.8		0.218
	Fluridone	96.7	90.7	98.5		8.18
	Glufosinate	99.5	104	109		4.69
	Glyphosate	99.2	104	101		3.19
	Hydrocodone	115	116	98.6		16.3
	Ibuprofen	79.1	81.1	74.2		8.87

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Imazapyr	97.1	99.2	109		6.61
	Imidacloprid	97.0	133	127		3.62
	Linuron	81.4	84.0	85.1		1.19
	Mandestrobin	95.6	99.4	110		10.2
	MCPP	97.9	91.9	93.9		2.08
	Naproxen	72.6	76.2	73.5		2.85
	Primidone	90.6	106	95.9		9.77
	Pyraclostrobin	93.9	86.5	99.0		13.5
	Silvex	92.1	80.9	84.9		4.81
	Sucralose	106	96.9	99.6		2.71
	Thiamethoxam	108	118	121		1.88
	Tolfenpyrad	61.8	53.1	68.2		25.1
	Triclopyr	116	90.9	89.8		1.27
SM 2320 B-2011	Total Alkalinity	97.0			2.66	
SM 2540 C-2015	TDS	95.2			5.08	
SM 2540 D-2015	TSS	97.6				
SM 4500-F- C-2011	Fluoride	105	103	103		0.0
SM 5310 B-2014	Organic Carbon	98.4	100	98.8		1.03

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2462650, 2462652
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2462650, 2462652
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2462673, 2462674, 2462675, 2462676
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2462673, 2462674, 2462675, 2462676
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2462650, 2462652
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2462650, 2462652
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2462651, 2462653
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2462651, 2462653
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2462651, 2462653
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2462651, 2462653
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2462665
EPA 8270E	PCBs in water matrices by GC/MS/MS	2462665
EPA 8276	Chlordane and Toxaphene in water matrices by GC/MS with Negative Chemical Ionization	2462665
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2462667, 2462695
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2462650, 2462652
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2462673, 2462674, 2462675, 2462676
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2462650, 2462652
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2462650, 2462652
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2462650, 2462652
SM 5310 B-2014	Nonpurgeable Organic Carbon in aqueous matrices	2462651, 2462653

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: NU-094-1	01/23/2024			01/23/2024 15:37	Anna M. Plaviak	2462650
	01/23/2024			01/23/2024 15:38	Anna M. Plaviak	2462652
EPA 180.1 Rev. 2.0	01/23/2024			01/23/2024 16:57	Dipa Joshi	2462650
	01/23/2024			01/23/2024 16:58	Dipa Joshi	2462652
EPA 200.7 Rev. 4.4	01/23/2024	01/24/2024 12:50	George D Taylor	01/25/2024 13:02	Chase Roberts	2462676
	01/23/2024	01/24/2024 12:50	George D Taylor	01/25/2024 16:29	Chase Roberts	2462673
	01/23/2024	01/24/2024 12:50	George D Taylor	01/25/2024 16:36	Chase Roberts	2462674
	01/23/2024	01/24/2024 12:50	George D Taylor	01/25/2024 17:08	Chase Roberts	2462675
EPA 200.8 Rev. 5.4	01/23/2024	01/24/2024 12:50	George D Taylor	01/25/2024 18:41	Emily M Philpot	2462676
	01/23/2024	01/24/2024 12:50	George D Taylor	01/25/2024 22:57	Emily M Philpot	2462673
	01/23/2024	01/24/2024 12:50	George D Taylor	01/25/2024 23:07	Emily M Philpot	2462674
	01/23/2024	01/24/2024 12:50	George D Taylor	01/25/2024 23:16	Emily M Philpot	2462675
	01/23/2024	01/29/2024 12:10	George D Taylor	01/30/2024 18:37	Emily M Philpot	2462673
	01/23/2024	01/29/2024 12:10	George D Taylor	01/30/2024 18:46	Emily M Philpot	2462674
EPA 300.0 Rev. 2.1	01/23/2024	01/29/2024 12:10	George D Taylor	01/30/2024 18:56	Emily M Philpot	2462675
	01/23/2024			01/26/2024 05:28	Samantha L Bates	2462650
EPA 350.1 Rev. 2.0	01/23/2024			01/26/2024 05:43	Samantha L Bates	2462652
	01/23/2024			01/25/2024 13:55	Ping Hua	2462651
EPA 351.2 Rev. 2.0	01/23/2024	01/26/2024 11:36	Ping Hua	01/25/2024 13:56	Ping Hua	2462653
	01/23/2024	01/26/2024 11:36	Ping Hua	01/29/2024 15:05	Samantha L Bates	2462651
EPA 353.2 Rev. 2.0	01/23/2024			01/29/2024 15:07	Samantha L Bates	2462653
	01/23/2024			01/24/2024 13:19	Fadila Guebre	2462651
EPA 365.1 Rev. 2.0	01/23/2024			01/24/2024 13:20	Fadila Guebre	2462653
	01/23/2024	01/25/2024 11:22	Adam P Silver	01/26/2024 11:04	Elise M. Gillis	2462651
EPA 8270E	01/23/2024	01/25/2024 11:22	Adam P Silver	01/26/2024 14:28	James L Waggeberby	2462653
	01/23/2024	01/24/2024 08:00	Rasheda Ghaffari	01/27/2024 01:26	Lipi Saha	2462665
EPA 8276	01/23/2024	01/24/2024 08:00	Rasheda Ghaffari	02/05/2024 22:30	Julie Wi	2462665
	01/23/2024	01/24/2024 08:00	Rasheda Ghaffari	01/27/2024 10:51	Kenedi Mills	2462665
EPA 8321B	01/23/2024	01/24/2024 13:00	Samatha Luckman	01/24/2024 20:10	Samatha Luckman	2462667
	01/23/2024	01/24/2024 13:00	Samatha Luckman	01/24/2024 20:24	Samatha Luckman	2462695
	01/23/2024	01/24/2024 13:00	Samatha Luckman	01/24/2024 23:41	Samatha Luckman	2462667
	01/23/2024	01/24/2024 13:00	Samatha Luckman	01/24/2024 23:55	Samatha Luckman	2462695
	01/23/2024	01/29/2024 08:45	Hoor Shaik	01/31/2024 23:32	Juyoung Kim	2462667
	01/23/2024	01/29/2024 08:45	Hoor Shaik	01/31/2024 23:50	Juyoung Kim	2462695
SM 2320 B-2011	01/23/2024	01/29/2024 08:45	Hoor Shaik	02/01/2024 11:39	Juyoung Kim	2462667
	01/23/2024			01/26/2024 09:38	Dale L. Simmons	2462650
SM 2340 B-2011	01/23/2024			01/26/2024 09:48	Dale L. Simmons	2462652
	01/23/2024			01/25/2024 13:02	Chase Roberts	2462676
	01/23/2024			01/25/2024 16:29	Chase Roberts	2462673
	01/23/2024			01/25/2024 16:36	Chase Roberts	2462674

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2340 B-2011	01/23/2024			01/25/2024 17:08	Chase Roberts	2462675
SM 2540 C-2015	01/23/2024			01/26/2024 15:06	Yijie Li	2462650, 2462652
SM 2540 D-2015	01/23/2024			01/26/2024 15:06	Yijie Li	2462650, 2462652
SM 4500-F- C-2011	01/23/2024			01/26/2024 09:38	Dale L. Simmons	2462650
	01/23/2024			01/26/2024 09:48	Dale L. Simmons	2462652
SM 5310 B-2014	01/23/2024			01/26/2024 06:56	Khloe J Berg	2462651
	01/23/2024			01/26/2024 07:10	Khloe J Berg	2462653