

Chemical Analysis Report

SW-DIST-2023-06-27-01

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

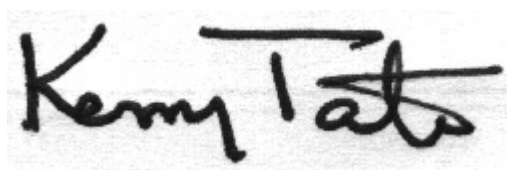
Event Description: **Run 9**
Request ID: **RQ-2023-06-26-43**
Customer: **SW-DIST**
Project ID: **SMP**

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: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 19-JUL-2023 10:53

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line extending from the end of the name.

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: 06/26/2023 10:40

Field ID: G1SW0095

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2420002	EPA 8270E	Aldrin	0.69	U	ng/L	P431934	
		Alpha-BHC	0.11	U	ng/L	P431934	
		Alpha-Chlordane	0.21	U	ng/L	P431934	
		PCB-1016	2.1	U	ng/L	P431934	
		Beta-BHC	0.11	U	ng/L	P431934	
		PCB-1221	2.1	U	ng/L	P431934	
		Beta-Cyfluthrin	1.3	U	ng/L	P431934	
		PCB-1232	2.1	U	ng/L	P431934	
		Bifenthrin	0.53	U	ng/L	P431934	
		PCB-1242	2.1	U	ng/L	P431934	
		Carbophenothion	0.95	U	ng/L	P431934	
		PCB-1248	2.1	U	ng/L	P431934	
		Chlorothalonil	3.8	U	ng/L	P431934	
		PCB-1254	2.1	U	ng/L	P431934	
		Cis-Nonachlor	0.21	U	ng/L	P431934	
		PCB-1260	2.1	U	ng/L	P431934	
		Cypermethrin	1.6	U	ng/L	P431934	
		Dacthal	0.16	U	ng/L	P431934	
		DDD-p,p'	0.26	U	ng/L	P431934	
		DDE-p,p'	0.21	U	ng/L	P431934	
		DDT-p,p'	0.26	UJ	ng/L	P431934	LCS
		Delta-BHC	0.42	U	ng/L	P431934	
		Deltamethrin	1.3	U	ng/L	P431934	
		Dichlobenil	0.26	U	ng/L	P431934	
		Dicofol	1.3	U	ng/L	P431934	
		Dieldrin	0.42	U	ng/L	P431934	
		Endosulfan I	0.42	U	ng/L	P431934	
		Endosulfan II	0.42	U	ng/L	P431934	
		Endosulfan Sulfate	0.32	U	ng/L	P431934	
		Endrin	0.42	U	ng/L	P431934	
		Endrin Aldehyde	0.79	U	ng/L	P431934	
		Endrin Ketone	0.42	U	ng/L	P431934	
		Esfenvalerate	0.79	U	ng/L	P431934	
		Ethalfuralin	0.16	U	ng/L	P431934	
		Fenpropathrin	0.26	U	ng/L	P431934	
		Gamma-BHC	0.13	U	ng/L	P431934	
		Gamma-Chlordane	0.28	I	ng/L	P431934	
		Heptachlor	0.21	U	ng/L	P431934	
		Heptachlor Epoxide	0.26	U	ng/L	P431934	
		Hexachlorobenzene**	1.1	U	ng/L	P431934	
		Kepone	5.3	U	ng/L	P431934	
		Lambda-Cyhalothrin	0.79	U	ng/L	P431934	
		Methoprene	0.79	U	ng/L	P431934	
		Methoxychlor	0.32	U	ng/L	P431934	

Field ID: G1SW0095

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2420002	EPA 8270E	MGK-264	0.21	U	ng/L	P431934	
		Mirex	0.37	U	ng/L	P431934	
		Oxychlordane	0.32	U	ng/L	P431934	
		Permethrin	1.7	U	ng/L	P431934	
		Phenothrin	0.95	U	ng/L	P431934	
		Piperonyl Butoxide	3.7		ng/L	P431934	
		Prallethrin	2.1	U	ng/L	P431934	
		Tau-Fluvalinate	0.26	U	ng/L	P431934	
		Tetramethrin	0.79	U	ng/L	P431934	
		Trans-Nonachlor	0.21	U	ng/L	P431934	
		Triclosan Methyl	0.16	U	ng/L	P431934	
		Trifluralin	0.21	U	ng/L	P431934	
		Chlordane	2.1	U	ng/L	P431934	
		Toxaphene	16	U	ng/L	P431934	
2420004	EPA 8321B	Acesulfame K	0.10	U	ug/L	P431789	
		2,4-D	0.051		ug/L	P431822	
		AMPA	2.0	IQ	ug/L	P431789	
		2,4,5-T	0.0040	U	ug/L	P431822	
		Acetaminophen	0.0080	U	ug/L	P431822	
		Endothall	0.25	U	ug/L	P431789	
		Acetamiprid	0.0020	U	ug/L	P431822	
		Glufosinate	1.0	U	ug/L	P431789	
		Glyphosate	1.8	I	ug/L	P431789	
		Afidopyropen	0.0020	U	ug/L	P431822	
		Sucralose	1.5		ug/L	P431789	
		Bentazon	0.32		ug/L	P431822	
		Benzovindiflupyr	0.0020	U	ug/L	P431822	
		Carbamazepine	8.0E-04	U	ug/L	P431822	
		Clothianidin	0.041		ug/L	P431822	
		Dinotefuran	0.0046	I	ug/L	P431822	
		Diuron	0.0020	U	ug/L	P431822	MS
		Fenuron	0.032	U	ug/L	P431822	
		Fluridone	0.084		ug/L	P431822	
		Imazapyr	0.23		ug/L	P431822	
		Hydrocodone	0.0020	U	ug/L	P431822	
		Ibuprofen	0.080	U	ug/L	P431822	
		Imidacloprid	0.15		ug/L	P431822	
		Linuron	0.0040	U	ug/L	P431822	
		Mandestrobin	0.0020	U	ug/L	P431822	
		MCP	0.0068	I	ug/L	P431822	
		Naproxen	0.0080	U	ug/L	P431822	
		Primidone	0.0045	I	ug/L	P431822	
		Pyraclostrobin	0.0020	U	ug/L	P431822	
		Silvex	0.0040	U	ug/L	P431822	
		Thiamethoxam	0.0020	U	ug/L	P431822	

Field ID: G1SW0095

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2420004	EPA 8321B	Tolfenpyrad	0.0020	U	ug/L	P431822	
		Triclopyr	0.0040	U	ug/L	P431822	
2420005	EPA 200.7 Rev. 4.4	Calcium	66.1		mg/L	P432180	
		Iron	210	I	ug/L	P432180	
		Magnesium	85.3		mg/L	P432180	
		Strontium	608		ug/L	P432180	
		Tin	12	U	ug/L	P432180	
		Titanium	3.0	U	ug/L	P432180	
		Vanadium	8.0	U	ug/L	P432180	
		Zinc	20	U	ug/L	P432180	
	EPA 200.8 Rev. 5.4	Aluminum	42	I	ug/L	P432180	
		Antimony	0.24	I	ug/L	P432180	
		Arsenic	2.17		ug/L	P432180	
		Beryllium	0.040	U	ug/L	P432180	
		Cadmium	0.080	U	ug/L	P432180	
		Chromium	4.0	U	ug/L	P432180	
		Cobalt	0.096	I	ug/L	P432180	
		Copper	1.6	U	ug/L	P432180	
		Lead	0.80	U	ug/L	P432180	
		Manganese	15.4		ug/L	P432180	
		Molybdenum	1.7	I	ug/L	P432180	
		Nickel	2.0	U	ug/L	P432180	
		Selenium	0.80	U	ug/L	P432180	
		Silver	0.040	UJ	ug/L	P432180	LCS, MS
		Thallium	0.40	U	ug/L	P432180	
	SM 2340 B-2011	Hardness	516		mg/L	P432180	

Ref. Method and Comment:

EPA 8270E: 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. AMPA - reported beyond holding time due to quality control failure in the first analysis.

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium and magnesium are unavailable because of high analyte concentration in the QC sample.

EPA 200.8 Rev. 5.4: Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: St Joe at 54th Ave

Collection Date/Time: 06/26/2023 12:00

Field ID: G5SW0170

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2419965	DEP SOP: NU-094-1	Color (true)	45		PCU	P431845	
	EPA 180.1 Rev. 2.0	Turbidity	2.9		NTU	P431847	
	EPA 300.0 Rev. 2.1	Chloride	1.2E+03		mg Cl/L	P431915	
		Sulfate	170		mg SO4/L	P431917	
	SM 2320 B-2011	Total Alkalinity	120		mg CaCO3/L	P431955	
	SM 2540 C-2015	TDS	2.03E+03		mg/L	P432257	
	SM 2540 D-2015	TSS	4	I	mg/L	P432094	
	SM 4500-F- C-2011	Fluoride	0.32		mg F/L	P431957	
2419967	EPA 350.1 Rev. 2.0	Ammonia-N	0.012		mg N/L	P431874	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.95		mg N/L	P431901	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P432532	
	EPA 365.1 Rev. 2.0	Total-P	0.15		mg P/L	P431881	
	SM 5310 B-2011	Organic Carbon	11		mg C/L	P432071	

Ref. Method and Comment:

SM 2540 C-2015: The reported result is consistent with the conductivity measured in the laboratory, 4080 µmhos/cm.

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

Sample Location: PP Ditch at 71st St

Collection Date/Time: 06/26/2023 11:30

Field ID: G5SW0134

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2420003	EPA 8270E	Aldrin	0.70	U	ng/L	P431934	
		Alpha-BHC	0.11	U	ng/L	P431934	
		Alpha-Chlordane	0.22	U	ng/L	P431934	
		PCB-1016	2.2	U	ng/L	P431934	
		Beta-BHC	0.11	U	ng/L	P431934	
		PCB-1221	2.2	U	ng/L	P431934	
		Beta-Cyfluthrin	1.3	U	ng/L	P431934	
		PCB-1232	2.2	U	ng/L	P431934	
		Bifenthrin	0.54	U	ng/L	P431934	
		PCB-1242	2.2	U	ng/L	P431934	
		Carbophenothion	0.97	U	ng/L	P431934	
		PCB-1248	2.2	U	ng/L	P431934	
		Chlorothalonil	3.9	U	ng/L	P431934	
		PCB-1254	2.2	U	ng/L	P431934	
		Cis-Nonachlor	0.22	U	ng/L	P431934	
		PCB-1260	2.2	U	ng/L	P431934	
		Cypermethrin	1.6	U	ng/L	P431934	
		Dacthal	0.16	U	ng/L	P431934	
		DDD-p,p'	0.27	U	ng/L	P431934	
		DDE-p,p'	0.22	U	ng/L	P431934	
		DDT-p,p'	0.27	UJ	ng/L	P431934	LCS
		Delta-BHC	0.43	U	ng/L	P431934	
		Deltamethrin	1.3	U	ng/L	P431934	
		Dichlobenil	0.27	U	ng/L	P431934	
		Dicofol	1.3	U	ng/L	P431934	
		Dieldrin	0.43	U	ng/L	P431934	
		Endosulfan I	0.43	U	ng/L	P431934	
		Endosulfan II	0.43	U	ng/L	P431934	
		Endosulfan Sulfate	0.32	U	ng/L	P431934	
		Endrin	0.43	U	ng/L	P431934	
		Endrin Aldehyde	0.81	U	ng/L	P431934	
		Endrin Ketone	0.43	U	ng/L	P431934	
		Esfenvalerate	0.81	U	ng/L	P431934	
		Ethalfuralin	0.16	U	ng/L	P431934	
		Fenpropathrin	0.27	U	ng/L	P431934	
		Gamma-BHC	0.13	U	ng/L	P431934	
		Gamma-Chlordane	0.23	I	ng/L	P431934	
		Heptachlor	0.22	U	ng/L	P431934	
		Heptachlor Epoxide	0.27	U	ng/L	P431934	
		Hexachlorobenzene**	1.1	U	ng/L	P431934	
		Kepone	5.4	U	ng/L	P431934	
		Lambda-Cyhalothrin	0.81	U	ng/L	P431934	
		Methoprene	0.81	U	ng/L	P431934	
		Methoxychlor	0.32	U	ng/L	P431934	

Field ID: G5SW0134

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2420003	EPA 8270E	MGK-264	0.22	U	ng/L	P431934	
		Mirex	0.38	U	ng/L	P431934	
		Oxychlordane	0.32	U	ng/L	P431934	
		Permethrin	1.7	U	ng/L	P431934	
		Phenothrin	0.97	U	ng/L	P431934	
		Piperonyl Butoxide	2.2		ng/L	P431934	
		Prallethrin	2.2	U	ng/L	P431934	
		Tau-Fluvalinate	0.27	U	ng/L	P431934	
		Tetramethrin	0.81	U	ng/L	P431934	
		Trans-Nonachlor	0.22	U	ng/L	P431934	
		Triclosan Methyl	0.16	U	ng/L	P431934	
		Trifluralin	0.22	U	ng/L	P431934	
		Chlordane	2.2	U	ng/L	P431934	
		Toxaphene	16	U	ng/L	P431934	
2420006	EPA 200.7 Rev. 4.4	Calcium	115		mg/L	P432180	
		Iron	170	I	ug/L	P432180	
		Magnesium	184		mg/L	P432180	
	EPA 200.8 Rev. 5.4	Strontium	1.48E+03		ug/L	P432180	
		Tin	9.0	U	ug/L	P432180	
		Titanium	2.2	U	ug/L	P432180	
		Vanadium	6.0	U	ug/L	P432180	
		Zinc	15	U	ug/L	P432180	
		Aluminum	36	I	ug/L	P432180	
		Antimony	0.37	I	ug/L	P432180	
		Arsenic	1.97		ug/L	P432180	
		Beryllium	0.040	U	ug/L	P432180	
		Cadmium	0.080	U	ug/L	P432180	
		Chromium	4.0	U	ug/L	P432180	
		Cobalt	0.12	I	ug/L	P432180	
		Copper	1.6	U	ug/L	P432180	
		Lead	0.80	U	ug/L	P432180	
		Manganese	23.8		ug/L	P432180	
		Molybdenum	3.6		ug/L	P432180	
		Nickel	2.0	U	ug/L	P432180	
		Selenium	0.80	U	ug/L	P432180	
		Silver	0.040	UJ	ug/L	P432180	LCS, MS
		Thallium	0.40	U	ug/L	P432180	
	SM 2340 B-2011	Hardness	1.04E+03		mg/L	P432180	

Ref. Method and Comment:

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

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium and magnesium are unavailable because of high analyte concentration in the QC sample.

EPA 200.8 Rev. 5.4: Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: St Joe Tidal by Westchester Blvd

Collection Date/Time: 06/26/2023 12:15

Field ID: G5SW0169

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2419966	DEP SOP: NU-094-1	Color (true)	31	A	PCU	P431846	
	EPA 180.1 Rev. 2.0	Turbidity	2.2		NTU	P431847	
	EPA 300.0 Rev. 2.1	Chloride	1.3E+03		mg Cl/L	P431915	
		Sulfate	230		mg SO4/L	P431917	
	SM 2320 B-2011	Total Alkalinity	159		mg CaCO3/L	P431955	
	SM 2540 C-2015	TDS	2.46E+03		mg/L	P432257	
	SM 2540 D-2015	TSS	3	I	mg/L	P432094	
	SM 4500-F- C-2011	Fluoride	0.47		mg F/L	P431957	
2419968	EPA 350.1 Rev. 2.0	Ammonia-N	0.030		mg N/L	P431874	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.90		mg N/L	P431901	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.57		mg N/L	P432532	
	EPA 365.1 Rev. 2.0	Total-P	0.40		mg P/L	P431881	
	SM 5310 B-2011	Organic Carbon	8.8		mg C/L	P432071	

Ref. Method and Comment:

SM 2540 C-2015: The reported result is consistent with the conductivity measured in the laboratory, 4640 µmhos/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: 06/26/2023 12:45

Field ID: G5SW0191

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2419963	DEP SOP: NU-094-1	Color (true)	90		PCU	P431845	
	EPA 180.1 Rev. 2.0	Turbidity	2.6		NTU	P431847	
	EPA 300.0 Rev. 2.1	Chloride	160		mg Cl/L	P431915	
		Sulfate	29		mg SO4/L	P431917	
	SM 2320 B-2011	Total Alkalinity	197		mg CaCO3/L	P431955	
	SM 2540 C-2015	TDS	561		mg/L	P432257	
	SM 2540 D-2015	TSS	6	I	mg/L	P432094	
	SM 4500-F- C-2011	Fluoride	0.50		mg F/L	P431957	
2419964	EPA 350.1 Rev. 2.0	Ammonia-N	0.024		mg N/L	P431991	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.75		mg N/L	P431900	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P432076	
	EPA 365.1 Rev. 2.0	Total-P	0.92		mg P/L	P431968	
	SM 5310 B-2011	Organic Carbon	18		mg C/L	P432071	

Ref. Method and Comment:

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: P431845

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: DEP SOP: NU-094-1
Batch ID: P431846

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P431847

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P432180

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	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: P432180

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P431915

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: P431917

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P431874

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P431991

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P431900

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P431901

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P432076

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P432532

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P431881

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P431968

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P431934

Component	Result	Code	Units
Aldrin	0.65	U	ng/L
Aldrin	0.65	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Bifenthrin	0.50	U	ng/L
Bifenthrin	0.50	U	ng/L
Carbophenothion	0.90	U	ng/L
Carbophenothion	0.90	U	ng/L
Chlorothalonil	3.6	U	ng/L
Chlorothalonil	3.6	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cypermethrin	1.5	U	ng/L
Cypermethrin	1.5	U	ng/L
Dacthal	0.15	U	ng/L
Dacthal	0.15	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDT-p,p'	0.25	U	ng/L
DDT-p,p'	0.25	U	ng/L
Delta-BHC	0.40	U	ng/L
Delta-BHC	0.40	U	ng/L
Deltamethrin	1.2	U	ng/L
Deltamethrin	1.2	U	ng/L
Dichlobenil	0.25	U	ng/L
Dichlobenil	0.25	U	ng/L
Dicofol	1.2	U	ng/L
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.40	U	ng/L
Endrin	0.40	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Ketone	0.40	U	ng/L
Endrin Ketone	0.40	U	ng/L
Esfenvalerate	0.75	U	ng/L
Esfenvalerate	0.75	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P431934

Component	Result	Code	Units
Ethalfuralin	0.15	U	ng/L
Ethalfuralin	0.15	U	ng/L
Fenpropathrin	0.25	U	ng/L
Fenpropathrin	0.25	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Kepone	5.0	U	ng/L
Kepone	5.0	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoxychlor	0.30	U	ng/L
Methoxychlor	0.30	U	ng/L
MGK-264	0.20	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.35	U	ng/L
Mirex	0.35	U	ng/L
Oxychlordane	0.30	U	ng/L
Oxychlordane	0.30	U	ng/L
PCB-1016	2.0	U	ng/L
PCB-1016	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1242	2.0	U	ng/L
PCB-1242	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1254	2.0	U	ng/L
PCB-1254	2.0	U	ng/L
PCB-1260	2.0	U	ng/L
PCB-1260	2.0	U	ng/L
Permethrin	1.6	U	ng/L
Permethrin	1.6	U	ng/L
Phenothrin	0.90	U	ng/L
Phenothrin	0.90	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Prallethrin	2.0	U	ng/L
Prallethrin	2.0	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P431934

Component	Result	Code	Units
Tetramethrin	0.75	U	ng/L
Tetramethrin	0.75	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Trifluralin	0.20	U	ng/L
Trifluralin	0.20	U	ng/L

Reference Method: EPA 8276

Batch ID: P431934

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

Reference Method: EPA 8321B

Batch ID: P431789

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: P431822

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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P431822

Component	Result	Code	Units
MCP	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: P431955

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

Reference Method: SM 2540 C-2015
Batch ID: P432257

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P432094

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P431957

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P432071

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: P431845

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.7		P	90 - 110

Reference Method: DEP SOP: NU-094-1
Batch ID: P431846

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: P431847

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P432180

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	101		P	85 - 115
Iron	103		P	85 - 115
Magnesium	101		P	85 - 115
Strontium	102		P	85 - 115
Tin	100		P	85 - 115
Titanium	101		P	85 - 115
Vanadium	102		P	85 - 115
Zinc	103		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P432180

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	101		P	85 - 115
Antimony	99.6		P	85 - 115
Arsenic	102		P	85 - 115
Beryllium	95.9		P	85 - 115
Cadmium	98.3		P	85 - 115
Chromium	100		P	85 - 115
Cobalt	102		P	85 - 115
Copper	98.5		P	85 - 115
Lead	103		P	85 - 115
Manganese	101		P	85 - 115
Molybdenum	97.3		P	85 - 115
Nickel	98.7		P	85 - 115
Selenium	103		P	85 - 115
Silver	72.3		F	85 - 115
Thallium	99.5		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P431915

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P431917

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P431874

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P431991

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	94.6		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P431900

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	96.8		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P431901

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P432076

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	103		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P432532

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	106		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P431881

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	98.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P431968

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P431934

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	64.2		P	10 - 92.0
Alpha-BHC	96.2		P	75 - 107
Alpha-Chlordane	90.9		P	50 - 108
Beta-BHC	113		P	36 - 138
Beta-Cyfluthrin	86.2		P	20 - 161
Bifenthrin	74.0		P	10 - 119
Carbophenothion	63.9		P	19 - 94.0
Chlorothalonil	101		P	26 - 186
Cis-Nonachlor	91.0		P	42 - 119
Cypermethrin	110		P	22 - 150
Dacthal	101		P	72 - 119
DDD-p,p'	86.3		P	45 - 107
DDE-p,p'	93.9		P	48 - 106
DDT-p,p'	115		F	48 - 110
Delta-BHC	84.0		P	54 - 140
Deltamethrin	135		P	22 - 189
Dichlobenil	80.2		P	36 - 117
Dicofol	82.0		P	46 - 155
Dieldrin	80.6		P	54 - 110
Endosulfan I	79.9		P	59 - 105
Endosulfan II	92.6		P	51 - 118
Endosulfan Sulfate	100		P	57 - 121
Endrin	95.1		P	10 - 120
Endrin Aldehyde	75.4		P	34 - 118
Endrin Ketone	129		P	69 - 177
Esfenvalerate	96.3		P	23 - 168
Ethalfuralin	81.0		P	49 - 99.0
Fenpropathrin	96.2		P	34 - 117
Gamma-BHC	99.3		P	72 - 117
Gamma-Chlordane	94.9		P	43 - 106
Heptachlor	88.4		P	41 - 98.0
Heptachlor Epoxide	78.8		P	57 - 106
Hexachlorobenzene	83.4		P	36 - 99.0
Kepone	64.1		P	16 - 215
Lambda-Cyhalothrin	90.7		P	21 - 177
Methoprene	86.7		P	10 - 119
Methoxychlor	103		P	60 - 112
MGK-264	97.4		P	26 - 122
Mirex	75.9		P	10 - 169
Oxychlordane	92.5		P	43 - 105
PCB-1016	76.4		P	48 - 112
PCB-1260	73.6		P	44 - 118
Permethrin	89.3		P	24 - 148
Phenothrin	76.2		P	10 - 106
Piperonyl Butoxide	104		P	10 - 139
Prallethrin	90.3		P	17 - 109
Tau-Fluvalinate	94.7		P	13 - 131
Tetramethrin	103		P	10 - 132
Trans-Nonachlor	91.6		P	44 - 106
Triclosan Methyl	77.0		P	59 - 109
Trifluralin	84.5		P	44 - 101

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8276

Batch ID: P431934

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	75.5		P	61 - 116
Toxaphene	84.6		P	48 - 124

Reference Method: EPA 8321B

Batch ID: P431789

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	101		P	40 - 150
AMPA	117		P	40 - 150
Endothall	95.8		P	40 - 150
Glufosinate	94.9		P	40 - 150
Glyphosate	105		P	40 - 150
Sucralose	89.5		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P431822

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	110		P	40 - 150
2,4,5-T	97.6		P	40 - 150
Acetaminophen	72.8		P	30 - 150
Acetamiprid	72.9		P	40 - 150
Afidopyropen	51.2		P	30 - 150
Bentazon	117		P	30 - 150
Benzovindiflupyr	86.3		P	40 - 150
Carbamazepine	85.7		P	40 - 150
Clothianidin	89.9		P	40 - 150
Dinotefuran	85.1		P	40 - 150
Diuron	85.2		P	40 - 150
Fenuron	88.9		P	40 - 150
Fluridone	95.5		P	40 - 150
Hydrocodone	87.7		P	40 - 150
Ibuprofen	76.4		P	40 - 150
Imazapyr	79.6		P	40 - 150
Imidacloprid	86.6		P	40 - 150
Linuron	87.3		P	40 - 150
Mandestrobin	84.3		P	40 - 150
MCPP	91.7		P	40 - 150
Naproxen	82.9		P	40 - 150
Primidone	74.9		P	40 - 150
Pyraclostrobin	76.0		P	40 - 150
Silvex	84.2		P	40 - 150
Thiamethoxam	86.4		P	40 - 150
Tolfenpyrad	53.7		P	30 - 150
Triclopyr	88.4		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P431955

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.2		P	92 - 105

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2540 C-2015
Batch ID: P432257

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	96.8		P	90 - 110

Reference Method: SM 2540 D-2015
Batch ID: P432094

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	97.4		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P431957

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.4		P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P432071

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P432180

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2420006	Iron	90.9	104	P/P	70 - 130
2420006	Strontium	87.5	116	P/P	70 - 130
2420006	Tin	102	102	P/P	70 - 130
2420006	Titanium	104	107	P/P	70 - 130
2420006	Vanadium	105	107	P/P	70 - 130
2420006	Zinc	102	102	P/P	70 - 130

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P432180

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2420006	Aluminum	101	103	P/P	70 - 130
2420006	Antimony	104	105	P/P	70 - 130
2420006	Arsenic	108	110	P/P	70 - 130
2420006	Beryllium	102	95.2	P/P	70 - 130
2420006	Cadmium	99.3	96.9	P/P	70 - 130
2420006	Chromium	102	103	P/P	70 - 130
2420006	Cobalt	96.4	98.1	P/P	70 - 130
2420006	Copper	100	100	P/P	70 - 130
2420006	Lead	106	108	P/P	70 - 130
2420006	Manganese	92.7	91.4	P/P	70 - 130
2420006	Molybdenum	107	107	P/P	70 - 130
2420006	Nickel	96.5	98.1	P/P	70 - 130
2420006	Selenium	107	107	P/P	70 - 130
2420006	Silver	70.5	70.0	P/F	70 - 130
2420006	Thallium	102	103	P/P	70 - 130

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P431915

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2419740	Chloride	107		P	90 - 110
2419949	Chloride	107		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P431917

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2419740	Sulfate	103		P	90 - 110
2419949	Sulfate	105		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P431874

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2419960	Ammonia-N	102	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P431991

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2419941	Ammonia-N	96.0	97.6	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P431900

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2419964	Kjeldahl Nitrogen	105	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P431901

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2419987	Kjeldahl Nitrogen	96.6	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P432076

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2419839	NO2NO3-N	94.5		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P432532

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2422406	NO2NO3-N	106	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P431881

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2419925	Total-P	92.2	91.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P431968

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2419897	Total-P	97.5	99.6	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P431934

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2419823	Aldrin	57.0	56.4	P/P	20 - 82.0
2419823	Alpha-BHC	87.4	83.1	P/P	71 - 109
2419823	Alpha-Chlordane	85.5	82.2	P/P	42 - 106
2419823	Beta-BHC	121	104	P/P	69 - 180
2419823	Beta-Cyfluthrin	99.1	71.3	P/P	18 - 175
2419823	Bifenthrin	84.4	73.3	P/P	21 - 128
2419823	Carbophenothion	73.5	67.9	P/P	10 - 126
2419823	Chlorothalonil	62.0	65.7	P/P	10 - 300
2419823	Cis-Nonachlor	72.6	71.5	P/P	34 - 106
2419823	Cypermethrin	127	105	P/P	22 - 158
2419823	Dacthal	89.5	91.0	P/P	54 - 116
2419823	DDD-p,p'	78.9	70.5	P/P	34 - 107
2419823	DDE-p,p'	78.0	78.4	P/P	33 - 110
2419823	DDT-p,p'	107	117	P/P	50 - 122
2419823	Delta-BHC	89.7	81.7	P/P	77 - 193
2419823	Deltamethrin	167	149	P/P	10 - 195

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P431934

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2419823	Dichlobenil	54.7	53.5	P/P	25 - 113
2419823	Dicofol	77.2	72.7	P/P	38 - 247
2419823	Dieldrin	76.1	75.3	P/P	45 - 118
2419823	Endosulfan I	82.7	75.6	P/P	51 - 106
2419823	Endosulfan II	74.5	74.2	P/P	37 - 122
2419823	Endosulfan Sulfate	72.1	71.9	P/P	43 - 132
2419823	Endrin	76.1	84.0	P/P	29 - 101
2419823	Endrin Aldehyde	67.4	54.6	P/P	19 - 110
2419823	Endrin Ketone	128	120	P/P	60 - 140
2419823	Esfenvalerate	117	103	P/P	26 - 199
2419823	Ethalfuralin	75.8	70.7	P/P	45 - 99.0
2419823	Fenpropathrin	91.5	84.5	P/P	35 - 120
2419823	Gamma-BHC	96.6	94.5	P/P	63 - 128
2419823	Gamma-Chlordane	84.0	81.7	P/P	40 - 104
2419823	Heptachlor	87.4	90.3	P/P	36 - 97.0
2419823	Heptachlor Epoxide	74.5	75.3	P/P	49 - 184
2419823	Hexachlorobenzene	71.8	75.8	P/P	39 - 96.0
2419823	Kepone	72.9	34.1	P/P	10 - 217
2419823	Lambda-Cyhalothrin	120	94.9	P/P	21 - 193
2419823	Methoprene	72.0	69.2	P/P	20 - 106
2419823	Methoxychlor	98.3	82.7	P/P	53 - 118
2419823	MGK-264	83.4	84.7	P/P	40 - 118
2419823	Mirex	66.9	62.8	P/P	26 - 92.0
2419823	Oxychlordane	77.0	84.4	P/P	44 - 99.0
2419823	Permethrin	92.4	83.5	P/P	33 - 182
2419823	Phenothrin	94.5	83.8	P/P	10 - 129
2419823	Piperonyl Butoxide	103	91.5	P/P	10 - 211
2419823	Prallethrin	75.5	71.4	P/P	24 - 113
2419823	Tau-Fluvalinate	121	102	P/P	14 - 149
2419823	Tetramethrin	110	94.1	P/P	17 - 151
2419823	Trans-Nonachlor	81.1	78.3	P/P	42 - 102
2419823	Triclosan Methyl	76.3	67.0	P/P	48 - 108
2419823	Trifluralin	78.6	75.2	P/P	47 - 96.0
2420684	PCB-1016	73.5	80.6	P/P	46 - 111
2420684	PCB-1260	73.8	73.6	P/P	45 - 114

Reference Method: EPA 8276

Batch ID: P431934

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2420684	Chlordane	76.3	80.3	P/P	53 - 126
2420684	Toxaphene	84.8	92.9	P/P	56 - 211

Reference Method: EPA 8321B

Batch ID: P431789

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2419763	Acesulfame K	111	115	P/P	40 - 150
2419763	AMPA	130	124	P/P	40 - 150
2419763	Endothall	101	102	P/P	40 - 150
2419763	Glufosinate	90.3	90.8	P/P	40 - 150
2419763	Glyphosate	92.9	94.1	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P431789

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2419763	Sucralose	92.4	92.2	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P431822

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2419423	2,4-D	107	111	P/P	40 - 150
2419423	2,4,5-T	115	111	P/P	40 - 150
2419423	Acetaminophen	66.5	79.7	P/P	30 - 150
2419423	Acetamiprid	73.4	78.2	P/P	40 - 150
2419423	Afidopyropen	52.8	57.4	P/P	30 - 150
2419423	Bentazon	78.5	91.9	P/P	30 - 150
2419423	Benzovindiflupyr	80.3	81.6	P/P	40 - 150
2419423	Carbamazepine	71.4	77.9	P/P	40 - 150
2419423	Clothianidin	93.5	109	P/P	40 - 150
2419423	Dinotefuran	79.1	91.0	P/P	40 - 150
2419423	Diuron	30.0	32.2	F/F	40 - 150
2419423	Fenuron	74.3	78.1	P/P	40 - 150
2419423	Fluridone	84.4	93.5	P/P	40 - 150
2419423	Hydrocodone	75.6	79.3	P/P	40 - 150
2419423	Ibuprofen	58.1	56.4	P/P	40 - 150
2419423	Imazapyr	80.0	92.9	P/P	40 - 150
2419423	Imidacloprid	113	126	P/P	40 - 150
2419423	Linuron	58.4	67.4	P/P	40 - 150
2419423	Mandestrobin	83.4	85.8	P/P	40 - 150
2419423	MCPP	110	126	P/P	40 - 150
2419423	Naproxen	74.3	81.7	P/P	40 - 150
2419423	Primidone	79.2	95.3	P/P	40 - 150
2419423	Pyraclostrobin	80.5	84.2	P/P	40 - 150
2419423	Silvex	92.3	103	P/P	40 - 150
2419423	Thiamethoxam	87.6	88.9	P/P	40 - 150
2419423	Tolfenpyrad	55.3	64.9	P/P	30 - 150
2419423	Triclopyr	101	110	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P431957

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2419404	Fluoride	100	101	P/P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P432071

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2419813	Organic Carbon	93.8	93.6	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P431845

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2419959	Color (true)	6.91	Sample	P	0 - 20

Reference Method: DEP SOP: NU-094-1
Batch ID: P431846

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2419966	Color (true)	0.465	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P431847

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2419978	Turbidity	6.83	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P432180

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2420006	Calcium	14.2	Spike	P	0 - 20
2420006	Iron	13.3	Spike	P	0 - 20
2420006	Magnesium	13.6	Spike	P	0 - 20
2420006	Strontium	15.9	Spike	P	0 - 20
2420006	Tin	0.223	Spike	P	0 - 20
2420006	Titanium	2.75	Spike	P	0 - 20
2420006	Vanadium	1.88	Spike	P	0 - 20
2420006	Zinc	0.159	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P432180

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2420006	Aluminum	2.69	Spike	P	0 - 20
2420006	Antimony	1.54	Spike	P	0 - 20
2420006	Arsenic	2.12	Spike	P	0 - 20
2420006	Beryllium	6.75	Spike	P	0 - 20
2420006	Cadmium	2.53	Spike	P	0 - 20
2420006	Chromium	0.876	Spike	P	0 - 20
2420006	Cobalt	1.74	Spike	P	0 - 20
2420006	Copper	0.497	Spike	P	0 - 20
2420006	Lead	1.58	Spike	P	0 - 20
2420006	Manganese	1.05	Spike	P	0 - 20
2420006	Molybdenum	0.223	Spike	P	0 - 20
2420006	Nickel	1.58	Spike	P	0 - 20
2420006	Selenium	0.521	Spike	P	0 - 20
2420006	Silver	0.763	Spike	P	0 - 20
2420006	Thallium	1.34	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P431915

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2419740	Chloride	1.68	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P431917

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2419740	Sulfate	1.75	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P431874

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2419960	Ammonia-N	1.32	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P431991

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2419941	Ammonia-N	1.51	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P431900

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2419964	Kjeldahl Nitrogen	1.43	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P431901

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2419987	Kjeldahl Nitrogen	5.59	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P432076

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2419839	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P432532

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2422406	NO2NO3-N	0.943	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P431881

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2419925	Total-P	1.34	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P431968

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2419897	Total-P	2.08	Spike	P	0 - 20

Reference Method: EPA 8270E

Batch ID: P431934

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2419823	Aldrin	1.04	Spike	P	0 - 41
2419823	Alpha-BHC	4.97	Spike	P	0 - 25
2419823	Alpha-Chlordane	3.83	Spike	P	0 - 33
2419823	Beta-BHC	15.3	Spike	P	0 - 36
2419823	Beta-Cyfluthrin	32.7	Spike	P	0 - 42
2419823	Bifenthrin	14.1	Spike	P	0 - 53
2419823	Carbophenothion	7.85	Spike	P	0 - 49
2419823	Chlorothalonil	5.85	Spike	P	0 - 71
2419823	Cis-Nonachlor	1.54	Spike	P	0 - 29
2419823	Cypermethrin	19.0	Spike	P	0 - 40
2419823	Dacthal	1.66	Spike	P	0 - 26
2419823	DDD-p,p'	11.2	Spike	P	0 - 39
2419823	DDE-p,p'	0.532	Spike	P	0 - 33
2419823	DDT-p,p'	9.35	Spike	P	0 - 40
2419823	Delta-BHC	9.29	Spike	P	0 - 37
2419823	Deltamethrin	11.5	Spike	P	0 - 100
2419823	Dichlobenil	2.23	Spike	P	0 - 40
2419823	Dicofol	5.93	Spike	P	0 - 31
2419823	Dieldrin	1.10	Spike	P	0 - 27
2419823	Endosulfan I	8.93	Spike	P	0 - 23
2419823	Endosulfan II	0.426	Spike	P	0 - 28
2419823	Endosulfan Sulfate	0.326	Spike	P	0 - 38
2419823	Endrin	9.94	Spike	P	0 - 63
2419823	Endrin Aldehyde	20.9	Spike	P	0 - 60
2419823	Endrin Ketone	6.68	Spike	P	0 - 37
2419823	Esfenvalerate	12.2	Spike	P	0 - 52
2419823	Ethalfuralin	7.03	Spike	P	0 - 23
2419823	Fenpropathrin	7.94	Spike	P	0 - 32
2419823	Gamma-BHC	2.14	Spike	P	0 - 17
2419823	Gamma-Chlordane	2.79	Spike	P	0 - 40
2419823	Heptachlor	3.27	Spike	P	0 - 29
2419823	Heptachlor Epoxide	1.10	Spike	P	0 - 25
2419823	Hexachlorobenzene	5.35	Spike	P	0 - 36
2419823	Kepone	72.5	Spike	P	0 - 93
2419823	Lambda-Cyhalothrin	23.3	Spike	P	0 - 55
2419823	Methoprene	4.06	Spike	P	0 - 53
2419823	Methoxychlor	17.2	Spike	P	0 - 29

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P431934

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2419823	MGK-264	1.53	Spike	P	0 - 35
2419823	Mirex	6.35	Spike	P	0 - 46
2419823	Oxychlordane	9.08	Spike	P	0 - 29
2419823	Permethrin	10.2	Spike	P	0 - 44
2419823	Phenothrin	12.0	Spike	P	0 - 56
2419823	Piperonyl Butoxide	12.2	Spike	P	0 - 100
2419823	Prallethrin	5.54	Spike	P	0 - 42
2419823	Tau-Fluvalinate	16.7	Spike	P	0 - 54
2419823	Tetramethrin	15.2	Spike	P	0 - 51
2419823	Trans-Nonachlor	3.60	Spike	P	0 - 37
2419823	Triclosan Methyl	13.0	Spike	P	0 - 31
2419823	Trifluralin	4.48	Spike	P	0 - 30
2420684	PCB-1016	9.16	Spike	P	0 - 32
2420684	PCB-1260	0.275	Spike	P	0 - 31

Reference Method: EPA 8276
Batch ID: P431934

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2420684	Chlordane	5.10	Spike	P	0 - 25
2420684	Toxaphene	9.21	Spike	P	0 - 26

Reference Method: EPA 8321B
Batch ID: P431789

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2419763	Acesulfame K	3.19	Spike	P	0 - 30
2419763	AMPA	4.05	Spike	P	0 - 30
2419763	Endothall	1.23	Spike	P	0 - 30
2419763	Glufosinate	0.600	Spike	P	0 - 30
2419763	Glyphosate	1.25	Spike	P	0 - 30
2419763	Sucralose	0.215	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P431822

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2419423	2,4-D	3.67	Spike	P	0 - 30
2419423	2,4,5-T	2.94	Spike	P	0 - 30
2419423	Acetaminophen	18.0	Spike	P	0 - 30
2419423	Acetamiprid	6.32	Spike	P	0 - 30
2419423	Afidopyropen	8.40	Spike	P	0 - 30
2419423	Bentazon	15.8	Spike	P	0 - 30
2419423	Benzovindiflupyr	1.67	Spike	P	0 - 30
2419423	Carbamazepine	8.79	Spike	P	0 - 30
2419423	Clothianidin	15.1	Spike	P	0 - 30
2419423	Dinotefuran	14.0	Spike	P	0 - 30
2419423	Diuron	7.21	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P431822

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2419423	Fenuron	4.99	Spike	P	0 - 30
2419423	Fluridone	8.93	Spike	P	0 - 30
2419423	Hydrocodone	4.83	Spike	P	0 - 30
2419423	Ibuprofen	2.93	Spike	P	0 - 30
2419423	Imazapyr	14.9	Spike	P	0 - 30
2419423	Imidacloprid	11.0	Spike	P	0 - 30
2419423	Linuron	14.4	Spike	P	0 - 30
2419423	Mandestrobin	2.83	Spike	P	0 - 30
2419423	MCCP	13.5	Spike	P	0 - 30
2419423	Naproxen	9.51	Spike	P	0 - 30
2419423	Primidone	18.5	Spike	P	0 - 30
2419423	Pyraclostrobin	4.48	Spike	P	0 - 30
2419423	Silvex	10.9	Spike	P	0 - 30
2419423	Thiamethoxam	1.43	Spike	P	0 - 30
2419423	Tolfenpyrad	16.0	Spike	P	0 - 30
2419423	Triclopyr	8.50	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P431955

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2419404	Total Alkalinity	0.900	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P432257

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2419627	TDS	1.75	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P431957

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2419404	Fluoride	0.487	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2011
Batch ID: P432071

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2419813	Organic Carbon	0.136	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2420002
Field Sample ID: G1SW0095

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	91.0	P	29 - 130
EPA 8270E	Decachlorobiphenyl	93.7	P	30 - 118
EPA 8270E	Tetrachloro-m-xylene	65.1	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	59.8	P	30 - 97.0
EPA 8276	Decachlorobiphenyl	52.9	P	30 - 101
EPA 8276	PCNB	87.4	P	48 - 121

Lab Sample ID: 2420003
Field Sample ID: G5SW0134

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	78.1	P	29 - 130
EPA 8270E	Decachlorobiphenyl	83.5	P	30 - 118
EPA 8270E	Tetrachloro-m-xylene	76.0	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	59.5	P	30 - 97.0
EPA 8276	Decachlorobiphenyl	46.1	P	30 - 101
EPA 8276	PCNB	77.2	P	48 - 121

Lab Sample ID: 2420004
Field Sample ID: G1SW0095

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	113	P	30 - 160
EPA 8321B	Acetaminophen-d4	69.0	P	30 - 160
EPA 8321B	Carbamazepine-d10	66.6	P	30 - 160
EPA 8321B	Diuron-d6	40.3	P	30 - 160
EPA 8321B	Endothall-d6	75.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	79.7	P	30 - 160
EPA 8321B	Ibuprofen-d3	48.0	P	30 - 160
EPA 8321B	Primidone-d5	86.1	P	30 - 160
EPA 8321B	Sucralose-d6	97.5	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A120051

Included Lab Sample IDs: 2419963, 2419965, 2419966

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

Reference Method: DEP SOP: NU-094-1

Run ID: A120056

Included Lab Sample IDs: 2419963, 2419965, 2419966

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	103	104	P/P	90 - 110
Color (true)	99.9	103	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A120057

Included Lab Sample IDs: 2419963, 2419965, 2419966

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	102	102	P/P	95 - 105

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A120071

Included Lab Sample IDs: 2419967, 2419968

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.0	99.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A120089

Included Lab Sample IDs: 2419967, 2419968

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

Reference Method: EPA 8321B

Run ID: A120108

Included Lab Sample IDs: 2420004

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	103	96.1	P/P	50 - 150
2,4,5-T	94.1	84.5	P/P	50 - 150
Acetaminophen	120	122	P/P	60 - 160
Acetamiprid	107	108	P/P	50 - 150
Afidopyropen	98.0	104	P/P	50 - 150
Bentazon	119	127	P/P	50 - 160
Benzovindiflupyr	105	112	P/P	50 - 150
Carbamazepine	119	116	P/P	60 - 150
Clothianidin	101	111	P/P	60 - 150
Dinotefuran	110	112	P/P	50 - 150
Diuron	121	122	P/P	60 - 160
Fenuron	109	108	P/P	60 - 150
Fluridone	112	113	P/P	60 - 160
Hydrocodone	112	107	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A120108
Included Lab Sample IDs: 2420004

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ibuprofen	87.3	79.0	P/P	50 - 160
Imazapyr	90.5	83.8	P/P	50 - 150
Imidacloprid	98.9	98.9	P/P	60 - 150
Linuron	103	96.3	P/P	60 - 150
Mandestrobin	109	110	P/P	50 - 150
MCPP	84.4	85.8	P/P	50 - 150
Naproxen	127	77.8	P/P	50 - 160
Primidone	99.2	94.7	P/P	60 - 150
Pyraclostrobin	110	117	P/P	60 - 150
Silvex	89.9	82.7	P/P	50 - 150
Thiamethoxam	110	123	P/P	50 - 150
Tolfenpyrad	107	114	P/P	60 - 150
Triclopyr	104	100	P/P	50 - 150

Reference Method: SM 2320 B-2011
Run ID: A120110
Included Lab Sample IDs: 2419963, 2419965, 2419966

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.4	94.5	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Run ID: A120110
Included Lab Sample IDs: 2419963, 2419965, 2419966

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

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A120125
Included Lab Sample IDs: 2419964

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.4	98.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A120133
Included Lab Sample IDs: 2419964, 2419967, 2419968

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	103	94.4	P/P	90 - 110
Kjeldahl Nitrogen	94.4	104	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A120137
Included Lab Sample IDs: 2420002, 2420003

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	101		P	80 - 120
Alpha-BHC	101		P	80 - 120
Alpha-Chlordane	105		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A120137

Included Lab Sample IDs: 2420002, 2420003

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Beta-BHC	94.3		P	80 - 120
Beta-Cyfluthrin	117		P	80 - 120
Bifenthrin	101		P	80 - 120
Carbophenothion	95.7		P	80 - 120
Chlorothalonil	95.0		P	80 - 120
Cis-Nonachlor	103		P	80 - 120
Cypermethrin	110		P	80 - 120
Dacthal	105		P	80 - 120
DDD-p,p'	103		P	80 - 120
DDE-p,p'	106		P	80 - 120
DDT-p,p'	97.7		P	80 - 120
Delta-BHC	95.2		P	80 - 120
Deltamethrin	106		P	80 - 120
Dichlobenil	98.8		P	80 - 120
Dicofol	97.9		P	80 - 120
Dieldrin	96.8		P	80 - 120
Endosulfan I	98.5		P	80 - 120
Endosulfan II	97.6		P	80 - 120
Endosulfan Sulfate	92.8		P	80 - 120
Endrin	104		P	80 - 120
Endrin Aldehyde	89.9		P	80 - 120
Endrin Ketone	92.8		P	80 - 120
Esfenvalerate	106		P	80 - 120
Ethalfuralin	99.6		P	80 - 120
Fenpropathrin	105		P	80 - 120
Gamma-BHC	96.4		P	80 - 120
Gamma-Chlordane	108		P	80 - 120
Heptachlor	101		P	80 - 120
Heptachlor Epoxide	98.6		P	80 - 120
Hexachlorobenzene	100		P	80 - 120
Kepone	85.0		P	80 - 120
Lambda-Cyhalothrin	104		P	80 - 120
Methoprene	107		P	80 - 120
Methoxychlor	108		P	80 - 120
MGK-264	99.1		P	80 - 120
Mirex	103		P	80 - 120
Oxychlordane	104		P	80 - 120
Permethrin	101		P	80 - 120
Phenothrin	104		P	80 - 120
Piperonyl Butoxide	94.2		P	80 - 120
Prallethrin	103		P	80 - 120
Tau-Fluvalinate	108		P	80 - 120
Tetramethrin	104		P	80 - 120
Trans-Nonachlor	104		P	80 - 120
Triclosan Methyl	96.2		P	80 - 120
Trifluralin	101		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A120150
Included Lab Sample IDs: 2420004

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	97.1	129	P/P	60 - 160
Sucralose	85.8	83.0	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A120153
Included Lab Sample IDs: 2420004

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	149	149	P/P	60 - 160
Endothall	91.9	98.0	P/P	60 - 160
Glufosinate	92.5	99.2	P/P	60 - 160
Glyphosate	112	104	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A120157
Included Lab Sample IDs: 2419964

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

Reference Method: SM 5310 B-2011
Run ID: A120177
Included Lab Sample IDs: 2419964, 2419967, 2419968

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.0	96.8	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A120182
Included Lab Sample IDs: 2419964

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	101	102	P/P	90 - 110

Reference Method: EPA 8276
Run ID: A120217
Included Lab Sample IDs: 2420002, 2420003

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	95.1		P	80 - 120
Toxaphene	92.0		P	80 - 120

Reference Method: EPA 8270E
Run ID: A120255
Included Lab Sample IDs: 2420002, 2420003

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	99.3		P	80 - 120
PCB-1260	98.8		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A120278

Included Lab Sample IDs: 2420005, 2420006

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	97.4	98.7	P/P	90 - 110
Antimony	97.5	97.1	P/P	90 - 110
Arsenic	100	101	P/P	90 - 110
Beryllium	99.2	97.5	P/P	90 - 110
Cadmium	97.8	98.0	P/P	90 - 110
Chromium	98.1	99.1	P/P	90 - 110
Cobalt	97.5	99.4	P/P	90 - 110
Copper	94.9	98.1	P/P	90 - 110
Lead	101	101	P/P	90 - 110
Manganese	98.3	97.5	P/P	90 - 110
Molybdenum	98.1	98.1	P/P	90 - 110
Nickel	95.9	98.2	P/P	90 - 110
Selenium	101	101	P/P	90 - 110
Silver	103	104	P/P	90 - 110
Thallium	98.1	98.3	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A120305

Included Lab Sample IDs: 2420005, 2420006

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	99.0	97.8	P/P	90 - 110
Iron	101	98.9	P/P	90 - 110
Magnesium	100	98.8	P/P	90 - 110
Strontium	102	103	P/P	90 - 110
Tin	99.7	100	P/P	90 - 110
Titanium	98.4	99.2	P/P	90 - 110
Vanadium	99.0	99.7	P/P	90 - 110
Zinc	101	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A120406

Included Lab Sample IDs: 2419967, 2419968

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	105	106	P/P	90 - 110

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

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

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
DEP SOP: NU-094-1	Color (true)	99.7				6.91	
	Color (true)	101				0.465	
EPA 180.1 Rev. 2.0	Turbidity	101				6.83	
EPA 200.7 Rev. 4.4	Calcium	101					14.2
	Iron	103	90.9	104			13.3
	Magnesium	101					13.6
	Strontium	102	87.5	116			15.9
	Tin	100	102	102			0.223
	Titanium	101	104	107			2.75
	Vanadium	102	105	107			1.88
	Zinc	103	102	102			0.159
	Aluminum	101	101	103			2.69
	Antimony	99.6	104	105			1.54
EPA 200.8 Rev. 5.4	Arsenic	102	108	110			2.12
	Beryllium	95.9	102	95.2			6.75
	Cadmium	98.3	99.3	96.9			2.53
	Chromium	100	102	103			0.876
	Cobalt	102	96.4	98.1			1.74
	Copper	98.5	100	100			0.497
	Lead	103	106	108			1.58
	Manganese	101	92.7	91.4			1.05
	Molybdenum	97.3	107	107			0.223
	Nickel	98.7	96.5	98.1			1.58
	Selenium	103	107	107			0.521
	Silver	72.3	70.5	70.0			0.763
	Thallium	99.5	102	103			1.34
	Chloride	104	107	107		1.68	
	Sulfate	103	103	105		1.75	
EPA 300.0 Rev. 2.1	Ammonia-N	95.2	102	101			1.32
	Ammonia-N	94.6	96.0	97.6			1.51
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	96.8	105	103			1.43
	Kjeldahl Nitrogen	94.4	96.6	103			5.59
EPA 353.2 Rev. 2.0	NO2NO3-N	103	94.5				0.0
	NO2NO3-N	106	106	106			0.943
EPA 365.1 Rev. 2.0	Total-P	98.5	92.2	91.0			1.34
	Total-P	97.1	97.5	99.6			2.08
EPA 8270E	Aldrin	64.2	57.0	56.4			1.04
	Alpha-BHC	96.2	87.4	83.1			4.97
	Alpha-Chlordane	90.9	85.5	82.2			3.83
	Beta-BHC	113	121	104			15.3
	Beta-Cyfluthrin	86.2	99.1	71.3			32.7
	Bifenthrin	74.0	84.4	73.3			14.1
	Carbophenothion	63.9	73.5	67.9			7.85
	Chlorothalonil	101	62.0	65.7			5.85
	Cis-Nonachlor	91.0	72.6	71.5			1.54
	Cypermethrin	110	127	105			19.0
	Dacthal	101	89.5	91.0			1.66
	DDD-p,p'	86.3	78.9	70.5			11.2
	DDE-p,p'	93.9	78.0	78.4			0.532
	DDT-p,p'	115	107	117			9.35
	Delta-BHC	84.0	89.7	81.7			9.29
	Deltamethrin	135	167	149			11.5
	Dichlobenil	80.2	54.7	53.5			2.23
	Dicofol	82.0	77.2	72.7			5.93

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Dieldrin	80.6	76.1	75.3			1.10
	Endosulfan I	79.9	82.7	75.6			8.93
	Endosulfan II	92.6	74.5	74.2			0.426
	Endosulfan Sulfate	100	72.1	71.9			0.326
	Endrin	95.1	76.1	84.0			9.94
	Endrin Aldehyde	75.4	67.4	54.6			20.9
	Endrin Ketone	129	128	120			6.68
	Esfenvalerate	96.3	117	103			12.2
	Ethalfuralin	81.0	75.8	70.7			7.03
	Fenpropathrin	96.2	91.5	84.5			7.94
	Gamma-BHC	99.3	96.6	94.5			2.14
	Gamma-Chlordane	94.9	84.0	81.7			2.79
	Heptachlor	88.4	87.4	90.3			3.27
	Heptachlor Epoxide	78.8	74.5	75.3			1.10
	Hexachlorobenzene	83.4	71.8	75.8			5.35
	Kepone	64.1	72.9	34.1			72.5
	Lambda-Cyhalothrin	90.7	120	94.9			23.3
	Methoprene	86.7	72.0	69.2			4.06
	Methoxychlor	103	98.3	82.7			17.2
	MGK-264	97.4	83.4	84.7			1.53
	Mirex	75.9	66.9	62.8			6.35
	Oxychlordane	92.5	77.0	84.4			9.08
	PCB-1016	76.4	73.5	80.6			9.16
	PCB-1260	73.6	73.8	73.6			0.275
	Permethrin	89.3	92.4	83.5			10.2
	Phenothrin	76.2	94.5	83.8			12.0
	Piperonyl Butoxide	104	103	91.5			12.2
	Prallethrin	90.3	75.5	71.4			5.54
	Tau-Fluvalinate	94.7	121	102			16.7
	Tetramethrin	103	110	94.1			15.2
	Trans-Nonachlor	91.6	81.1	78.3			3.60
	Triclosan Methyl	77.0	76.3	67.0			13.0
	Trifluralin	84.5	78.6	75.2			4.48
EPA 8276	Chlordane	75.5	76.3	80.3			5.10
	Toxaphene	84.6	84.8	92.9			9.21
EPA 8321B	2,4-D	110	107	111			3.67
	2,4,5-T	97.6	115	111			2.94
	Acesulfame K	101	111	115			3.19
	Acetaminophen	72.8	66.5	79.7			18.0
	Acetamiprid	72.9	73.4	78.2			6.32
	Afidopyropen	51.2	52.8	57.4			8.40
	AMPA	117	130	124			4.05
	Bentazon	117	78.5	91.9			15.8
	Benzovindiflupyr	86.3	80.3	81.6			1.67
	Carbamazepine	85.7	71.4	77.9			8.79
	Clothianidin	89.9	93.5	109			15.1
	Dinotefuran	85.1	79.1	91.0			14.0
	Diuron	85.2	30.0	32.2			7.21
	Endothall	95.8	101	102			1.23
	Fenuron	88.9	74.3	78.1			4.99
	Fluridone	95.5	84.4	93.5			8.93
	Glufosinate	94.9	90.3	90.8			0.600
	Glyphosate	105	92.9	94.1			1.25
	Hydrocodone	87.7	75.6	79.3			4.83

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Ibuprofen	76.4	58.1	56.4		2.93
	Imazapyr	79.6	80.0	92.9		14.9
	Imidacloprid	86.6	113	126		11.0
	Linuron	87.3	58.4	67.4		14.4
	Mandestrobin	84.3	83.4	85.8		2.83
	MCPP	91.7	110	126		13.5
	Naproxen	82.9	74.3	81.7		9.51
	Primidone	74.9	79.2	95.3		18.5
	Pyraclostrobin	76.0	80.5	84.2		4.48
	Silvex	84.2	92.3	103		10.9
	Sucralose	89.5	92.4	92.2		0.215
	Thiamethoxam	86.4	87.6	88.9		1.43
	Tolfenpyrad	53.7	55.3	64.9		16.0
	Triclopyr	88.4	101	110		8.50
SM 2320 B-2011	Total Alkalinity	97.2			0.900	
SM 2540 C-2015	TDS	96.8			1.75	
SM 2540 D-2015	TSS	97.4				
SM 4500-F- C-2011	Fluoride	99.4	100	101		0.487
SM 5310 B-2011	Organic Carbon	95.2	93.8	93.6		0.136

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2419963, 2419965, 2419966
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2419963, 2419965, 2419966
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2420005, 2420006
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2420005, 2420006
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2419963, 2419965, 2419966
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2419963, 2419965, 2419966
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2419964, 2419967, 2419968
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2419964, 2419967, 2419968
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2419964, 2419967, 2419968
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2419964, 2419967, 2419968
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2420002, 2420003
EPA 8270E	PCBs in water matrices by GC/MS/MS	2420002, 2420003
EPA 8276	Chlordane and Toxaphene in water matrices by GC/MS with Negative Chemical Ionization	2420002, 2420003
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2420004
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2419963, 2419965, 2419966
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2420005, 2420006
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2419963, 2419965, 2419966
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2419963, 2419965, 2419966
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2419963, 2419965, 2419966
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2419964, 2419967, 2419968

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	06/27/2023			06/27/2023 14:00	Samantha L Bates	2419963
	06/27/2023			06/27/2023 14:01	Samantha L Bates	2419965
	06/27/2023			06/27/2023 14:05	Samantha L Bates	2419966
EPA 180.1 Rev. 2.0	06/27/2023			06/27/2023 12:44	Alexis Price	2419963
	06/27/2023			06/27/2023 12:45	Alexis Price	2419965
	06/27/2023			06/27/2023 12:46	Alexis Price	2419966
EPA 200.7 Rev. 4.4	06/27/2023	07/07/2023 13:25	George D Taylor	07/11/2023 18:04	McKinley C Carter	2420005
	06/27/2023	07/07/2023 13:25	George D Taylor	07/11/2023 18:17	McKinley C Carter	2420006
EPA 200.8 Rev. 5.4	06/27/2023	07/07/2023 13:25	George D Taylor	07/10/2023 15:15	Conrad Hartmann	2420005
	06/27/2023	07/07/2023 13:25	George D Taylor	07/10/2023 15:24	Conrad Hartmann	2420006
	06/27/2023	07/07/2023 13:25	George D Taylor	07/10/2023 16:26	Conrad Hartmann	2420005
EPA 300.0 Rev. 2.1	06/27/2023	07/07/2023 13:25	George D Taylor	07/10/2023 16:35	Conrad Hartmann	2420006
	06/27/2023			06/28/2023 21:38	James L Waggeberby	2419963
	06/27/2023			06/28/2023 21:53	James L Waggeberby	2419965
EPA 350.1 Rev. 2.0	06/27/2023			06/28/2023 22:08	James L Waggeberby	2419966
	06/27/2023			06/28/2023 11:34	Khloe J Berg	2419967
	06/27/2023			06/28/2023 11:35	Khloe J Berg	2419968
EPA 351.2 Rev. 2.0	06/27/2023			06/30/2023 11:43	Khloe J Berg	2419964
	06/27/2023	06/29/2023 12:06	Simonne.V. Calhoun	06/30/2023 12:02	Samantha L Bates	2419964
	06/27/2023	06/29/2023 12:06	Simonne.V. Calhoun	06/30/2023 12:15	Samantha L Bates	2419967
EPA 353.2 Rev. 2.0	06/27/2023	06/29/2023 12:06	Simonne.V. Calhoun	06/30/2023 12:20	Samantha L Bates	2419968
	06/27/2023			07/05/2023 10:29	Beverly Y. Sanders	2419964
	06/27/2023			07/13/2023 14:21	Judith K. Clark	2419967
EPA 365.1 Rev. 2.0	06/27/2023			07/13/2023 14:22	Judith K. Clark	2419968
	06/27/2023	06/28/2023 14:40	Adam P Silver	06/29/2023 10:10	James L Waggeberby	2419967
	06/27/2023	06/28/2023 14:40	Adam P Silver	06/29/2023 10:11	James L Waggeberby	2419968
EPA 8270E	06/27/2023	06/30/2023 13:12	Adam P Silver	07/05/2023 11:53	Simonne.V. Calhoun	2419964
	06/27/2023	06/30/2023 08:00	Fe-Val Siddell	07/01/2023 22:10	Michael Poppell	2420002
	06/27/2023	06/30/2023 08:00	Fe-Val Siddell	07/01/2023 22:41	Michael Poppell	2420003
EPA 8276	06/27/2023	06/30/2023 08:00	Fe-Val Siddell	07/06/2023 22:14	Lipi Saha	2420002
	06/27/2023	06/30/2023 08:00	Fe-Val Siddell	07/06/2023 22:44	Lipi Saha	2420003
	06/27/2023	06/30/2023 08:00	Fe-Val Siddell	07/06/2023 16:54	Arthur Maknenko	2420002
EPA 8321B	06/27/2023	06/30/2023 08:00	Fe-Val Siddell	07/06/2023 17:51	Arthur Maknenko	2420003
	06/27/2023	06/28/2023 08:30	Hoor Shaik	06/29/2023 02:38	Juyoung Kim	2420004
	06/27/2023	06/28/2023 08:30	Hoor Shaik	06/29/2023 10:14	Juyoung Kim	2420004
	06/27/2023	06/29/2023 16:00	Hana Lee	06/30/2023 19:28	Tae K Lee	2420004
	06/27/2023	06/29/2023 16:00	Hana Lee	07/01/2023 14:40	Tae K Lee	2420004
	06/27/2023	06/29/2023 16:00	Hana Lee	07/02/2023 04:38	Tae K Lee	2420004
SM 2320 B-2011	06/27/2023	06/29/2023 16:00	Hana Lee	07/05/2023 13:58	Tae K Lee	2420004
	06/27/2023			06/29/2023 02:55	Dale L. Simmons	2419963

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2320 B-2011	06/27/2023			06/29/2023 03:09	Dale L. Simmons	2419965
	06/27/2023			06/29/2023 03:24	Dale L. Simmons	2419966
SM 2340 B-2011	06/27/2023			07/11/2023 18:04	McKinley C Carter	2420005
	06/27/2023			07/11/2023 18:17	McKinley C Carter	2420006
SM 2540 C-2015	06/27/2023			06/28/2023 14:17	Yijie Li	2419963, 2419965, 2419966
SM 2540 D-2015	06/27/2023			06/28/2023 14:17	Yijie Li	2419963, 2419965, 2419966
SM 4500-F- C-2011	06/27/2023			06/29/2023 02:55	Dale L. Simmons	2419963
	06/27/2023			06/29/2023 03:09	Dale L. Simmons	2419965
	06/27/2023			06/29/2023 03:24	Dale L. Simmons	2419966
SM 5310 B-2011	06/27/2023			07/05/2023 20:03	Elise M. Gillis	2419964
	06/27/2023			07/05/2023 20:18	Elise M. Gillis	2419967
	06/27/2023			07/05/2023 20:33	Elise M. Gillis	2419968