

Chemical Analysis Report

SW-DIST-2023-07-27-01

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

Event Description: **Run 9**
Request ID: **RQ-2023-07-24-31**
Customer: **SW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
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13051 N. Telecom Parkway
Temple Terrace, FL 33637-0926
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Certified by: Thekkekalathil Chandrasekhar, Environmental Consultant

Date Certified: 17-AUG-2023 15:56



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: ST JOE TIDAL AT 54TH AVE

Collection Date/Time: 07/26/2023 10:50

Field ID: G5SW0170

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2427117	DEP SOP: NU-094-1	Color (true)	44		PCU	P433135	
	EPA 180.1 Rev. 2.0	Turbidity	4.1		NTU	P433138	
	EPA 300.0 Rev. 2.1	Chloride	3.3E+03		mg Cl/L	P433406	
		Sulfate	460		mg SO4/L	P433409	
	SM 2320 B-2011	Total Alkalinity	128		mg CaCO3/L	P433368	
	SM 2540 C-2015	TDS	5.66E+03		mg/L	P433609	
	SM 2540 D-2015	TSS	5	I	mg/L	P433523	
2427120	SM 4500-F- C-2011	Fluoride	0.43		mg F/L	P433369	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P433283	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P433266	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P433563	
	EPA 365.1 Rev. 2.0	Total-P	0.17		mg P/L	P433295	
	SM 5310 B-2011	Organic Carbon	12		mg C/L	P433427	

Ref. Method and Comment:

SM 2540 C-2015: The reported result is consistent with the conductivity measured in the laboratory, 10610 umhos/cm.

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

Sample Location: ST JOE TIDAL BY WESTCHESTER BLVD

Collection Date/Time: 07/26/2023 11:05

Field ID: G5SW0169

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2427118	DEP SOP: NU-094-1	Color (true)	21		PCU	P433135	
	EPA 180.1 Rev. 2.0	Turbidity	4.2	A	NTU	P433139	
	EPA 300.0 Rev. 2.1	Chloride	4.3E+03		mg Cl/L	P433406	
		Sulfate	510		mg SO4/L	P433278	
	SM 2320 B-2011	Total Alkalinity	145	A	mg CaCO3/L	P433368	
	SM 2540 C-2015	TDS	6.02E+03		mg/L	P433607	
	SM 2540 D-2015	TSS	6	I	mg/L	P433520	
	SM 4500-F- C-2011	Fluoride	0.50		mg F/L	P433369	
2427121	EPA 350.1 Rev. 2.0	Ammonia-N	0.020		mg N/L	P433283	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P433266	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.24		mg N/L	P433563	
	EPA 365.1 Rev. 2.0	Total-P	0.42		mg P/L	P433295	
	SM 5310 B-2011	Organic Carbon	10		mg C/L	P433375	

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: GULF CREEK AT 9TH AVE NORTH

Collection Date/Time: 07/26/2023 11:30

Field ID: G5SW0191

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2427115	DEP SOP: NU-094-1	Color (true)	90		PCU	P433135	
	EPA 180.1 Rev. 2.0	Turbidity	1.5		NTU	P433138	
	EPA 300.0 Rev. 2.1	Chloride	140		mg Cl/L	P433406	
		Sulfate	28		mg SO4/L	P433278	
	SM 2320 B-2011	Total Alkalinity	205		mg CaCO3/L	P433354	
	SM 2540 C-2015	TDS	574		mg/L	P433607	
	SM 2540 D-2015	TSS	2	I	mg/L	P433520	
2427116	SM 4500-F- C-2011	Fluoride	0.56		mg F/L	P433357	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.022		mg N/L	P433398	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P433217	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P433167	
	EPA 365.1 Rev. 2.0	Total-P	0.99		mg P/L	P433151	
	SM 5310 B-2011	Organic Carbon	19		mg C/L	P433375	

Ref. Method and Comment:

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

EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: LONG BRANCH TIDALATWHITNEY RD

Collection Date/Time: 07/26/2023 09:45

Field ID: G1SW0107

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2427119	DEP SOP: NU-094-1	Color (true)	56		PCU	P433135	
	EPA 180.1 Rev. 2.0	Turbidity	3.9		NTU	P433139	
	EPA 300.0 Rev. 2.1	Chloride	1.7E+03		mg Cl/L	P433796	
		Sulfate	250		mg SO4/L	P433278	
	SM 2320 B-2011	Total Alkalinity	154		mg CaCO3/L	P433491	
	SM 2540 C-2015	TDS	3.05E+03		mg/L	P433609	
	SM 2540 D-2015	TSS	3	UA	mg/L	P433523	
	SM 4500-F- C-2011	Fluoride	0.32		mg F/L	P433493	
2427122	EPA 350.1 Rev. 2.0	Ammonia-N	0.12		mg N/L	P433283	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.91		mg N/L	P433317	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.024		mg N/L	P433563	
	EPA 365.1 Rev. 2.0	Total-P	0.24		mg P/L	P433295	
	SM 5310 B-2011	Organic Carbon	11		mg C/L	P433427	

Ref. Method and Comment:

SM 2540 C-2015: The reported result is consistent with the conductivity measured in the laboratory, 6010 umhos/cm.

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

Sample Location: MULLET CREEK TIDAL AT PARK

Collection Date/Time: 07/26/2023 09:45

Field ID: G1SW0095

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2427274	EPA 8270E	Aldrin	0.68	U	ng/L	P433162	
		Alpha-BHC	0.10	U	ng/L	P433162	
		Alpha-Chlordane	0.21	U	ng/L	P433162	
		PCB-1016	2.1	U	ng/L	P433162	
		Beta-BHC	0.10	U	ng/L	P433162	
		PCB-1221	2.1	U	ng/L	P433162	
		Beta-Cyfluthrin	1.3	U	ng/L	P433162	
		PCB-1232	2.1	U	ng/L	P433162	
		Bifenthrin	0.52	U	ng/L	P433162	
		PCB-1242	2.1	U	ng/L	P433162	
		Carbophenothion	0.94	U	ng/L	P433162	
		PCB-1248	2.1	U	ng/L	P433162	
		Chlorothalonil	3.8	U	ng/L	P433162	
		PCB-1254	2.1	U	ng/L	P433162	
		Cis-Nonachlor	0.21	U	ng/L	P433162	
		PCB-1260	2.1	U	ng/L	P433162	
		Cypermethrin	1.6	U	ng/L	P433162	
		Dacthal	0.16	U	ng/L	P433162	
		DDD-p,p'	0.26	U	ng/L	P433162	
		DDE-p,p'	0.21	U	ng/L	P433162	
		DDT-p,p'	0.84	U	ng/L	P433162	
		Delta-BHC	0.42	U	ng/L	P433162	
		Deltamethrin	1.3	U	ng/L	P433162	
		Dichlobenil	0.26	U	ng/L	P433162	
		Dicofol	1.3	U	ng/L	P433162	
		Dieldrin	0.42	U	ng/L	P433162	
		Endosulfan I	0.42	U	ng/L	P433162	
		Endosulfan II	0.94	U	ng/L	P433162	
		Endosulfan Sulfate	0.31	U	ng/L	P433162	
		Endrin	0.94	U	ng/L	P433162	
		Endrin Aldehyde	0.79	U	ng/L	P433162	
		Endrin Ketone	0.42	U	ng/L	P433162	
		Esfenvalerate	0.79	U	ng/L	P433162	
		Ethalfuralin	0.16	U	ng/L	P433162	
		Fenpropathrin	0.26	U	ng/L	P433162	
		Gamma-BHC	0.13	U	ng/L	P433162	
		Gamma-Chlordane	0.21	U	ng/L	P433162	
		Heptachlor	0.21	U	ng/L	P433162	
		Heptachlor Epoxide	0.26	U	ng/L	P433162	
		Hexachlorobenzene**	1.0	U	ng/L	P433162	
		Kepone	14	UJ	ng/L	P433162	CCV
		Lambda-Cyhalothrin	0.79	U	ng/L	P433162	
		Methoprene	0.79	U	ng/L	P433162	
		Methoxychlor	0.31	U	ng/L	P433162	

Field ID: G1SW0095

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2427274	EPA 8270E	MGK-264	0.21	U	ng/L	P433162	
		Mirex	0.37	U	ng/L	P433162	
		Oxychlordane	0.31	U	ng/L	P433162	
		Permethrin	1.7	U	ng/L	P433162	
		Phenothrin	0.94	U	ng/L	P433162	
		Piperonyl Butoxide	0.16	U	ng/L	P433162	
		Prallethrin	2.1	U	ng/L	P433162	
		Tau-Fluvalinate	0.26	U	ng/L	P433162	
		Tetramethrin	0.79	U	ng/L	P433162	
		Trans-Nonachlor	0.21	U	ng/L	P433162	
		Triclosan Methyl	0.16	U	ng/L	P433162	
		Trifluralin	0.21	U	ng/L	P433162	
		Chlordane	2.1	U	ng/L	P433162	
		Toxaphene	16	U	ng/L	P433162	
2427276	EPA 8321B						
		2,4-D	0.025		ug/L	P433126	
		Acesulfame K	0.10	U	ug/L	P433067	
		2,4,5-T	0.0040	U	ug/L	P433126	
		AMPA	10	U	ug/L	P433067	
		Acetaminophen	0.0080	U	ug/L	P433126	
		Acetamiprid	0.0020	U	ug/L	P433126	
		Endothall	0.25	U	ug/L	P433067	
		Glufosinate	10	U	ug/L	P433067	
		Glyphosate	10	U	ug/L	P433067	
		Afidopyropen	0.0020	U	ug/L	P433126	
		Bentazon	0.065		ug/L	P433126	
		Sucralose	1.7		ug/L	P433067	
		Benzovindiflupyr	0.0020	U	ug/L	P433126	
		Carbamazepine	8.0E-04	U	ug/L	P433126	
		Clothianidin	0.0020	U	ug/L	P433126	
		Dinotefuran	0.0020	U	ug/L	P433126	
		Diuron	0.0020	U	ug/L	P433126	MS
		Fenuron	0.032	U	ug/L	P433126	
		Fluridone	0.024		ug/L	P433126	
		Imazapyr	0.026		ug/L	P433126	
		Hydrocodone	0.0020	U	ug/L	P433126	
		Ibuprofen	0.080	U	ug/L	P433126	
		Imidacloprid	0.019		ug/L	P433126	
		Linuron	0.0040	U	ug/L	P433126	
		Mandestrobin	0.0020	U	ug/L	P433126	
		MCP	0.0020	U	ug/L	P433126	
		Naproxen	0.0080	U	ug/L	P433126	
		Primidone	0.0041	I	ug/L	P433126	
		Pyraclostrobin	0.0020	U	ug/L	P433126	
		Silvex	0.0040	U	ug/L	P433126	
		Thiamethoxam	0.0020	U	ug/L	P433126	

Field ID: G1SW0095

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2427276	EPA 8321B	Tolfenpyrad	0.0020	U	ug/L	P433126	
		Triclopyr	0.0040	U	ug/L	P433126	
2427277	EPA 200.7 Rev. 4.4	Calcium	230		mg/L	P433240	
		Iron	120	U	ug/L	P433240	
		Magnesium	637		mg/L	P433240	
		Strontium	3.97E+03		ug/L	P433240	
		Tin	14	I	ug/L	P433240	
		Titanium	3.1	I	ug/L	P433240	
		Vanadium	8.0	U	ug/L	P433240	
	EPA 200.8 Rev. 5.4	Zinc	20	U	ug/L	P433240	
		Aluminum	99		ug/L	P433240	
		Antimony	0.22	I	ug/L	P433240	
		Arsenic	2.65		ug/L	P433240	
		Beryllium	0.040	U	ug/L	P433240	
		Cadmium	0.080	U	ug/L	P433240	
		Chromium	1.6	U	ug/L	P433240	
		Cobalt	0.080	U	ug/L	P433240	
		Copper	1.6	U	ug/L	P433240	
		Lead	0.80	U	ug/L	P433240	
		Manganese	18.7		ug/L	P433240	
		Molybdenum	6.3		ug/L	P433240	
		Nickel	2.0	U	ug/L	P433240	
		Selenium	0.80	U	ug/L	P433240	
		Silver	0.040	U	ug/L	P433240	
		Thallium	0.40	U	ug/L	P433240	
	SM 2340 B-2011	Hardness	3.20E+03		mg/L	P433240	

Ref. Method and Comment:

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

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

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

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

Sample Location: PP DITCH1 AT 71ST ST

Collection Date/Time: 07/26/2023 10:30

Field ID: G5SW0134

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2427275	EPA 8270E	Aldrin	0.69	U	ng/L	P433162	
		Alpha-BHC	0.11	U	ng/L	P433162	
		Alpha-Chlordane	0.21	U	ng/L	P433162	
		PCB-1016	2.1	U	ng/L	P433162	
		Beta-BHC	0.11	U	ng/L	P433162	
		PCB-1221	2.1	U	ng/L	P433162	
		Beta-Cyfluthrin	1.3	U	ng/L	P433162	
		PCB-1232	2.1	U	ng/L	P433162	
		Bifenthrin	0.53	U	ng/L	P433162	
		PCB-1242	2.1	U	ng/L	P433162	
		Carbophenothion	0.96	U	ng/L	P433162	
		PCB-1248	2.1	U	ng/L	P433162	
		Chlorothalonil	3.8	U	ng/L	P433162	
		PCB-1254	2.1	U	ng/L	P433162	
		Cis-Nonachlor	0.21	U	ng/L	P433162	
		PCB-1260	2.1	U	ng/L	P433162	
		Cypermethrin	1.6	U	ng/L	P433162	
		Dacthal	0.16	U	ng/L	P433162	
		DDD-p,p'	0.31	I	ng/L	P433162	
		DDE-p,p'	0.21	U	ng/L	P433162	
		DDT-p,p'	0.85	U	ng/L	P433162	
		Delta-BHC	0.43	U	ng/L	P433162	
		Deltamethrin	1.3	U	ng/L	P433162	
		Dichlobenil	0.27	U	ng/L	P433162	
		Dicofol	1.3	U	ng/L	P433162	
		Dieldrin	3.5		ng/L	P433162	
		Endosulfan I	0.43	U	ng/L	P433162	
		Endosulfan II	0.96	U	ng/L	P433162	
		Endosulfan Sulfate	0.32	U	ng/L	P433162	
		Endrin	0.96	U	ng/L	P433162	
		Endrin Aldehyde	0.80	U	ng/L	P433162	
		Endrin Ketone	0.43	U	ng/L	P433162	
		Esfenvalerate	0.80	U	ng/L	P433162	
		Ethalfuralin	0.16	U	ng/L	P433162	
		Fenpropathrin	0.27	U	ng/L	P433162	
		Gamma-BHC	0.13	U	ng/L	P433162	
		Gamma-Chlordane	0.24	I	ng/L	P433162	
		Heptachlor	0.21	U	ng/L	P433162	
		Heptachlor Epoxide	0.27	U	ng/L	P433162	
		Hexachlorobenzene**	1.1	U	ng/L	P433162	
		Kepone	14	UJ	ng/L	P433162	CCV
		Lambda-Cyhalothrin	0.80	U	ng/L	P433162	
		Methoprene	0.80	U	ng/L	P433162	
		Methoxychlor	0.32	U	ng/L	P433162	

Field ID: G5SW0134

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2427275	EPA 8270E	MGK-264	0.21	U	ng/L	P433162	
		Mirex	0.37	U	ng/L	P433162	
		Oxychlordane	0.32	U	ng/L	P433162	
		Permethrin	1.7	U	ng/L	P433162	
		Phenothrin	0.96	U	ng/L	P433162	
		Piperonyl Butoxide	3.1		ng/L	P433162	
		Prallethrin	2.1	U	ng/L	P433162	
		Tau-Fluvalinate	0.27	U	ng/L	P433162	
		Tetramethrin	0.80	U	ng/L	P433162	
		Trans-Nonachlor	0.21	U	ng/L	P433162	
		Triclosan Methyl	0.16	U	ng/L	P433162	
		Trifluralin	0.21	U	ng/L	P433162	
	EPA 8276	Chlordane	2.1	U	ng/L	P433162	
		Toxaphene	16	U	ng/L	P433162	
2427278	EPA 200.7 Rev. 4.4	Calcium	128		mg/L	P433240	
		Iron	170	I	ug/L	P433240	
		Magnesium	226		mg/L	P433240	
		Strontium	1.79E+03		ug/L	P433240	
		Tin	14	I	ug/L	P433240	
		Titanium	2.2	U	ug/L	P433240	
		Vanadium	6.0	U	ug/L	P433240	
		Zinc	15	U	ug/L	P433240	
	EPA 200.8 Rev. 5.4	Aluminum	34	I	ug/L	P433240	
		Antimony	0.29	I	ug/L	P433240	
		Arsenic	1.88		ug/L	P433240	
		Beryllium	0.040	U	ug/L	P433240	
		Cadmium	0.080	U	ug/L	P433240	
		Chromium	1.6	U	ug/L	P433240	
		Cobalt	0.13	I	ug/L	P433240	
		Copper	1.6	U	ug/L	P433240	
		Lead	0.80	U	ug/L	P433240	
		Manganese	25.1		ug/L	P433240	
		Molybdenum	3.3		ug/L	P433240	
		Nickel	2.0	U	ug/L	P433240	
		Selenium	0.80	U	ug/L	P433240	
		Silver	0.040	U	ug/L	P433240	
		Thallium	0.40	U	ug/L	P433240	
	SM 2340 B-2011	Hardness	1.25E+03		mg/L	P433240	

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.

Quality Assurance Report

Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P433135

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P433138

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P433139

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P433240

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: P433240

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: P433278

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P433406

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P433409

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P433796

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P433283

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P433398

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P433217

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P433266

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P433317

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P433167

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P433563

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P433151

Component	Result	Code	Units
Total-P	0.010	U	mg P/L

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P433295

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

Reference Method: EPA 8270E
Batch ID: P433162

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'	0.80	U	ng/L
DDT-p,p'	0.80	U	ng/L
Delta-BHC	0.40	U	ng/L
Delta-BHC	0.40	U	ng/L
Deltamethrin	1.2	U	ng/L
Deltamethrin	1.2	U	ng/L
Dichlobenil	0.25	U	ng/L
Dichlobenil	0.25	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P433162

Component	Result	Code	Units
Dicofol	1.2	U	ng/L
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.90	U	ng/L
Endosulfan II	0.90	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.90	U	ng/L
Endrin	0.90	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Ketone	0.40	U	ng/L
Endrin Ketone	0.40	U	ng/L
Esfenvalerate	0.75	U	ng/L
Esfenvalerate	0.75	U	ng/L
Ethalfuralin	0.15	U	ng/L
Ethalfuralin	0.15	U	ng/L
Fenpropathrin	0.25	U	ng/L
Fenpropathrin	0.25	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Kepone	14	U	ng/L
Kepone	14	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoxychlor	0.30	U	ng/L
Methoxychlor	0.30	U	ng/L
MGK-264	0.20	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.35	U	ng/L
Mirex	0.35	U	ng/L
Oxychlordane	0.30	U	ng/L
Oxychlordane	0.30	U	ng/L
PCB-1016	2.0	U	ng/L
PCB-1016	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1232	2.0	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P433162

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

Reference Method: EPA 8276

Batch ID: P433162

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: P433067

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: P433126

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B

Batch ID: P433126

Component	Result	Code	Units
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: P433354

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

Reference Method: SM 2320 B-2011

Batch ID: P433368

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

Reference Method: SM 2320 B-2011

Batch ID: P433491

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

Reference Method: SM 2540 C-2015

Batch ID: P433607

Component	Result	Code	Units
TDS	15	U	mg/L

Quality Assurance Report Method Blank Results

Reference Method: SM 2540 C-2015
Batch ID: P433609

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P433520

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P433523

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P433357

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 4500-F- C-2011
Batch ID: P433369

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 4500-F- C-2011
Batch ID: P433493

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P433375

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

Reference Method: SM 5310 B-2011
Batch ID: P433427

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: P433135

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

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P433138

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

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P433139

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P433240

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	100		P	85 - 115
Iron	103		P	85 - 115
Magnesium	100		P	85 - 115
Strontium	103		P	85 - 115
Tin	105		P	85 - 115
Titanium	103		P	85 - 115
Vanadium	103		P	85 - 115
Zinc	101		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P433240

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	101		P	85 - 115
Antimony	95.9		P	85 - 115
Arsenic	96.5		P	85 - 115
Beryllium	91.1		P	85 - 115
Cadmium	97.6		P	85 - 115
Chromium	92.8		P	85 - 115
Cobalt	98.6		P	85 - 115
Copper	96.0		P	85 - 115
Lead	96.2		P	85 - 115
Manganese	96.8		P	85 - 115
Molybdenum	97.6		P	85 - 115
Nickel	96.4		P	85 - 115
Selenium	97.1		P	85 - 115
Silver	106		P	85 - 115
Thallium	100		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P433278

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	99.7		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P433406

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	99.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P433409

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	99.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P433796

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	98.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P433283

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	91.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P433398

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P433217

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P433266

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P433317

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P433167

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	95.0		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P433563

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	104		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P433151

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

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P433295

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

Reference Method: EPA 8270E

Batch ID: P433162

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	41.0		P	30 - 96.0
Alpha-BHC	89.4		P	70 - 109
Alpha-Chlordane	84.1		P	45 - 107
Beta-BHC	77.7		P	64 - 138
Beta-Cyfluthrin	82.1		P	17 - 141
Bifenthrin	50.2		P	10 - 113
Carbophenothion	43.9		P	24 - 91.0
Chlorothalonil	47.8		P	26 - 180
Cis-Nonachlor	79.5		P	37 - 102
Cypermethrin	75.1		P	20 - 133
Dacthal	91.2		P	69 - 114
DDD-p,p'	79.0		P	42 - 105
DDE-p,p'	77.5		P	42 - 106
DDT-p,p'	63.2		P	42 - 107
Delta-BHC	72.6		P	67 - 144
Deltamethrin	99.9		P	15 - 149
Dichlobenil	74.8		P	46 - 117
Dicofol	76.5		P	34 - 114
Dieldrin	62.3		P	50 - 108
Endosulfan I	65.4		P	55 - 104
Endosulfan II	95.7		P	51 - 111
Endosulfan Sulfate	79.8		P	56 - 121
Endrin	84.6		P	10 - 106
Endrin Aldehyde	86.0		P	34 - 114
Endrin Ketone	111		P	63 - 177
Esfenvalerate	64.2		P	29 - 143
Ethalfuralin	68.5		P	46 - 96.0
Fenpropathrin	61.7		P	28 - 115
Gamma-BHC	104		P	65 - 121
Gamma-Chlordane	72.8		P	39 - 103
Heptachlor	68.3		P	39 - 94.0
Heptachlor Epoxide	62.8		P	54 - 104
Hexachlorobenzene	43.3		P	36 - 100
Kepone	37.6		P	10 - 225

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P433162

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Lambda-Cyhalothrin	57.6		P	10 - 135
Methoprene	59.1		P	10 - 109
Methoxychlor	86.8		P	52 - 112
MGK-264	70.8		P	44 - 117
Mirex	65.4		P	20 - 90.0
Oxychlordane	74.1		P	44 - 102
PCB-1016	74.6		P	45 - 107
PCB-1260	73.5		P	40 - 112
Permethrin	63.7		P	18 - 135
Phenothrin	38.2		P	10 - 102
Piperonyl Butoxide	95.4		P	28 - 156
Prallethrin	68.1		P	28 - 113
Tau-Fluvalinate	55.4		P	10 - 123
Tetramethrin	62.8		P	18 - 158
Trans-Nonachlor	79.0		P	39 - 104
Triclosan Methyl	59.6		P	54 - 108
Trifluralin	73.5		P	46 - 97.0

Reference Method: EPA 8276

Batch ID: P433162

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	84.0		P	52 - 117
Toxaphene	99.4		P	44 - 125

Reference Method: EPA 8321B

Batch ID: P433067

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	101		P	40 - 150
AMPA	139		P	40 - 150
Endothall	97.3		P	40 - 150
Glufosinate	91.2		P	40 - 150
Glyphosate	98.3		P	40 - 150
Sucralose	90.0		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P433126

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	76.6		P	40 - 150
2,4,5-T	69.9		P	40 - 150
Acetaminophen	77.6		P	30 - 150
Acetamiprid	83.8		P	40 - 150
Afidopyropen	49.9		P	30 - 150
Bentazon	120		P	30 - 150
Benzovindiflupyr	77.3		P	40 - 150
Carbamazepine	71.5		P	40 - 150
Clothianidin	86.3		P	40 - 150
Dinotefuran	103		P	40 - 150
Diuron	66.8		P	40 - 150
Fenuron	95.0		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P433126

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluridone	88.5		P	40 - 150
Hydrocodone	101		P	40 - 150
Ibuprofen	73.9		P	40 - 150
Imazapyr	80.5		P	40 - 150
Imidacloprid	82.2		P	40 - 150
Linuron	71.8		P	40 - 150
Mandestrobin	87.4		P	40 - 150
MCPP	83.0		P	40 - 150
Naproxen	84.0		P	40 - 150
Primidone	83.4		P	40 - 150
Pyraclostrobin	67.5		P	40 - 150
Silvex	81.3		P	40 - 150
Thiamethoxam	90.9		P	40 - 150
Tolfenpyrad	34.4		P	30 - 150
Triclopyr	75.2		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P433354

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	95.7		P	92 - 105

Reference Method: SM 2320 B-2011

Batch ID: P433368

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	93.9		P	92 - 105

Reference Method: SM 2320 B-2011

Batch ID: P433491

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

Reference Method: SM 2540 C-2015

Batch ID: P433607

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

Reference Method: SM 2540 C-2015

Batch ID: P433609

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

Reference Method: SM 2540 D-2015

Batch ID: P433520

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2540 D-2015
Batch ID: P433523

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	88.8		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P433357

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.4		P	94 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P433369

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.0		P	94 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P433493

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.3		P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P433375

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

Reference Method: SM 5310 B-2011
Batch ID: P433427

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.6		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P433240

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427278	Iron	96.3	95.7	P/P	80 - 120
2427278	Strontium	94.5	95.5	P/P	80 - 120
2427278	Tin	86.0	80.7	P/P	80 - 120
2427278	Titanium	102	100	P/P	80 - 120
2427278	Vanadium	100	97.9	P/P	80 - 120
2427278	Zinc	96.6	93.2	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P433240

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427278	Aluminum	102	104	P/P	70 - 130
2427278	Antimony	100	102	P/P	70 - 130
2427278	Arsenic	104	106	P/P	70 - 130
2427278	Beryllium	94.2	92.6	P/P	70 - 130
2427278	Cadmium	94.5	95.9	P/P	70 - 130
2427278	Chromium	92.6	94.5	P/P	70 - 130
2427278	Cobalt	94.5	95.7	P/P	70 - 130
2427278	Copper	101	102	P/P	70 - 130
2427278	Lead	99.0	101	P/P	70 - 130
2427278	Manganese	94.8	96.3	P/P	70 - 130
2427278	Molybdenum	108	109	P/P	70 - 130
2427278	Nickel	103	104	P/P	70 - 130
2427278	Selenium	101	100	P/P	70 - 130
2427278	Silver	98.8	101	P/P	70 - 130
2427278	Thallium	99.9	103	P/P	70 - 130

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P433278

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427188	Sulfate	100		P	90 - 110
2427210	Sulfate	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P433406

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427181	Chloride	101		P	90 - 110
2427210	Chloride	99.6		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P433409

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427181	Sulfate	98.6		P	90 - 110
2427210	Sulfate	99.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P433796

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P433796

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2429018	Chloride	98.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P433283

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2426573	Ammonia-N	97.0	99.2	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P433398

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427088	Ammonia-N	100	99.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P433217

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427054	Kjeldahl Nitrogen	98.3	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P433266

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2426250	Kjeldahl Nitrogen	108	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P433317

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427443	Kjeldahl Nitrogen	98.5	93.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P433167

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427059	NO2NO3-N	96.0	96.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P433563

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427120	NO2NO3-N	96.1	95.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P433295

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427121	Total-P	108	105	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P433162

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427281	Aldrin	44.0	51.4	P/P	24 - 81.0
2427281	Alpha-BHC	85.8	90.1	P/P	65 - 110
2427281	Alpha-Chlordane	66.5	79.6	P/P	43 - 119
2427281	Beta-BHC	83.4	79.0	P/P	54 - 165
2427281	Beta-Cyfluthrin	87.6	94.0	P/P	27 - 165
2427281	Bifenthrin	62.1	64.8	P/P	17 - 117
2427281	Carbophenothion	57.5	51.1	P/P	21 - 108
2427281	Chlorothalonil	82.0	65.8	P/P	10 - 255
2427281	Cis-Nonachlor	68.0	77.9	P/P	34 - 98.0
2427281	Cypermethrin	89.9	84.6	P/P	25 - 143
2427281	Dacthal	81.6	90.0	P/P	55 - 139
2427281	DDD-p,p'	66.4	74.5	P/P	30 - 109
2427281	DDE-p,p'	70.1	78.0	P/P	35 - 106
2427281	DDT-p,p'	66.5	68.0	P/P	41 - 101
2427281	Delta-BHC	93.5	79.4	P/P	58 - 165
2427281	Deltamethrin	96.8	111	P/P	10 - 194
2427281	Dichlobenil	66.6	66.1	P/P	22 - 114
2427281	Dicofol	70.3	81.6	P/P	17 - 133
2427281	Dieldrin	67.6	64.4	P/P	45 - 129
2427281	Endosulfan I	74.7	69.1	P/P	49 - 104
2427281	Endosulfan II	88.8	101	P/P	37 - 117
2427281	Endosulfan Sulfate	72.4	73.6	P/P	38 - 128
2427281	Endrin	71.0	81.7	P/P	35 - 116
2427281	Endrin Aldehyde	72.1	76.3	P/P	19 - 108
2427281	Endrin Ketone	109	118	P/P	44 - 134
2427281	Esfenvalerate	82.6	86.0	P/P	27 - 176
2427281	Ethalfuralin	68.1	71.1	P/P	49 - 100
2427281	Fenpropathrin	72.5	78.9	P/P	34 - 117
2427281	Gamma-BHC	109	111	P/P	59 - 129
2427281	Gamma-Chlordane	68.0	75.3	P/P	33 - 107
2427281	Heptachlor	72.7	81.2	P/P	37 - 94.0
2427281	Heptachlor Epoxide	66.7	59.7	P/P	38 - 118
2427281	Hexachlorobenzene	48.7	44.7	P/P	35 - 97.0
2427281	Kepone	34.2	32.1	P/P	10 - 221
2427281	Lambda-Cyhalothrin	75.1	70.9	P/P	23 - 190
2427281	Methoprene	63.5	63.6	P/P	21 - 109
2427281	Methoxychlor	75.9	90.5	P/P	46 - 118
2427281	MGK-264	81.9	82.7	P/P	39 - 122
2427281	Mirex	63.5	70.4	P/P	25 - 90.0
2427281	Oxychlordane	67.3	73.6	P/P	42 - 100
2427281	Permethrin	75.6	84.2	P/P	33 - 181
2427281	Phenothrin	64.2	61.8	P/P	12 - 125
2427281	Piperonyl Butoxide	109	102	P/P	10 - 178
2427281	Prallethrin	61.0	67.7	P/P	24 - 122
2427281	Tau-Fluvalinate	80.6	76.4	P/P	13 - 151
2427281	Tetramethrin	80.6	77.2	P/P	16 - 172
2427281	Trans-Nonachlor	71.0	78.5	P/P	39 - 100
2427281	Triclosan Methyl	69.8	61.2	P/P	43 - 110
2427281	Trifluralin	68.1	66.3	P/P	45 - 94.0
2427568	PCB-1016	66.7	65.8	P/P	45 - 107
2427568	PCB-1260	69.2	82.0	P/P	40 - 112

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8276
Batch ID: P433162

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427568	Chlordane	72.1	76.6	P/P	43 - 123
2427568	Toxaphene	87.0	91.6	P/P	27 - 156

Reference Method: EPA 8321B
Batch ID: P433067

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427047	Acesulfame K	112	113	P/P	40 - 150
2427047	AMPA	129	132	P/P	40 - 150
2427047	Endothall	92.4	94.7	P/P	40 - 150
2427047	Glufosinate	82.1	85.0	P/P	40 - 150
2427047	Glyphosate	84.3	93.6	P/P	40 - 150
2427047	Sucralose	78.9	82.1	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P433126

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427264	2,4,5-T	127	111	P/P	40 - 150
2427264	Acetaminophen	78.9	77.1	P/P	30 - 150
2427264	Acetamiprid	42.4	42.3	P/P	40 - 150
2427264	Afidopyropen	50.1	51.9	P/P	30 - 150
2427264	Benzovindiflupyr	84.0	80.6	P/P	40 - 150
2427264	Carbamazepine	43.7	43.2	P/P	40 - 150
2427264	Clothianidin	68.4	69.1	P/P	40 - 150
2427264	Dinotefuran	63.4	61.3	P/P	40 - 150
2427264	Diuron	30.4	39.8	F/F	40 - 150
2427264	Fenuron	44.2	52.0	P/P	40 - 150
2427264	Fluridone	92.4	87.6	P/P	40 - 150
2427264	Hydrocodone	54.5	52.4	P/P	40 - 150
2427264	Ibuprofen	73.5	70.1	P/P	40 - 150
2427264	Imidacloprid	105	101	P/P	40 - 150
2427264	Linuron	49.4	48.3	P/P	40 - 150
2427264	Mandestrobin	83.7	80.5	P/P	40 - 150
2427264	MCPP	133	135	P/P	40 - 150
2427264	Naproxen	99.2	91.9	P/P	40 - 150
2427264	Primidone	69.9	62.7	P/P	40 - 150
2427264	Pyraclostrobin	81.1	73.7	P/P	40 - 150
2427264	Silvex	125	126	P/P	40 - 150
2427264	Thiamethoxam	67.6	67.4	P/P	40 - 150
2427264	Tolfenpyrad	58.7	54.2	P/P	30 - 150
2427264	Triclopyr	109	105	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P433357

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427094	Fluoride	98.1	97.5	P/P	94 - 106

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 4500-F- C-2011
Batch ID: P433369

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427118	Fluoride	101	101	P/P	94 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P433493

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2428377	Fluoride	99.0	97.9	P/P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P433375

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427096	Organic Carbon	91.8	95.5	P/P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P433427

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427120	Organic Carbon	96.9	97.9	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P433135

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427087	Color (true)	2.89	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P433138

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427188	Turbidity	3.23	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P433139

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427118	Turbidity	6.44	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P433240

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427278	Calcium	0.163	Spike	P	0 - 20
2427278	Iron	0.614	Spike	P	0 - 20
2427278	Magnesium	0.0460	Spike	P	0 - 20
2427278	Strontium	0.561	Spike	P	0 - 20
2427278	Tin	5.49	Spike	P	0 - 20
2427278	Titanium	1.61	Spike	P	0 - 20
2427278	Vanadium	2.44	Spike	P	0 - 20
2427278	Zinc	3.64	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P433240

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427278	Aluminum	1.72	Spike	P	0 - 20
2427278	Antimony	1.93	Spike	P	0 - 20
2427278	Arsenic	2.06	Spike	P	0 - 20
2427278	Beryllium	1.77	Spike	P	0 - 20
2427278	Cadmium	1.45	Spike	P	0 - 20
2427278	Chromium	2.03	Spike	P	0 - 20
2427278	Cobalt	1.35	Spike	P	0 - 20
2427278	Copper	1.53	Spike	P	0 - 20
2427278	Lead	1.83	Spike	P	0 - 20
2427278	Manganese	1.19	Spike	P	0 - 20
2427278	Molybdenum	0.974	Spike	P	0 - 20
2427278	Nickel	1.36	Spike	P	0 - 20
2427278	Selenium	1.02	Spike	P	0 - 20
2427278	Silver	1.87	Spike	P	0 - 20
2427278	Thallium	3.28	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P433278

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427188	Sulfate	0.932	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P433406

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427181	Chloride	0.573	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P433409

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427181	Sulfate	0.839	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P433796

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2429018	Chloride	0.523	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P433283

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2426573	Ammonia-N	1.50	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P433398

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427088	Ammonia-N	0.972	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P433217

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427054	Kjeldahl Nitrogen	3.09	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P433266

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2426250	Kjeldahl Nitrogen	3.27	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P433317

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427443	Kjeldahl Nitrogen	4.22	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P433167

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427059	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P433563

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427120	NO2NO3-N	0.596	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P433151

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427116	Total-P	0.714	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P433295

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427121	Total-P	1.54	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P433162

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427281	Aldrin	15.5	Spike	P	0 - 41
2427281	Alpha-BHC	4.98	Spike	P	0 - 25
2427281	Alpha-Chlordane	17.8	Spike	P	0 - 32
2427281	Beta-BHC	5.43	Spike	P	0 - 33
2427281	Beta-Cyfluthrin	7.07	Spike	P	0 - 43
2427281	Bifenthrin	4.28	Spike	P	0 - 52
2427281	Carbophenothion	11.8	Spike	P	0 - 49
2427281	Chlorothalonil	22.0	Spike	P	0 - 82
2427281	Cis-Nonachlor	13.5	Spike	P	0 - 33
2427281	Cypermethrin	6.02	Spike	P	0 - 51
2427281	Dacthal	9.78	Spike	P	0 - 27
2427281	DDD-p,p'	11.5	Spike	P	0 - 39
2427281	DDE-p,p'	10.7	Spike	P	0 - 31
2427281	DDT-p,p'	2.10	Spike	P	0 - 29
2427281	Delta-BHC	16.3	Spike	P	0 - 35
2427281	Deltamethrin	13.5	Spike	P	0 - 100

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P433162

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427281	Dichlobenil	0.716	Spike	P	0 - 40
2427281	Dicofol	14.9	Spike	P	0 - 37
2427281	Dieldrin	4.77	Spike	P	0 - 27
2427281	Endosulfan I	7.90	Spike	P	0 - 23
2427281	Endosulfan II	12.6	Spike	P	0 - 34
2427281	Endosulfan Sulfate	1.65	Spike	P	0 - 36
2427281	Endrin	13.9	Spike	P	0 - 45
2427281	Endrin Aldehyde	5.73	Spike	P	0 - 76
2427281	Endrin Ketone	8.39	Spike	P	0 - 43
2427281	Esfenvalerate	4.09	Spike	P	0 - 51
2427281	Ethalfuralin	4.20	Spike	P	0 - 22
2427281	Fenpropathrin	8.46	Spike	P	0 - 49
2427281	Gamma-BHC	1.74	Spike	P	0 - 28
2427281	Gamma-Chlordane	10.3	Spike	P	0 - 40
2427281	Heptachlor	11.0	Spike	P	0 - 29
2427281	Heptachlor Epoxide	11.1	Spike	P	0 - 33
2427281	Hexachlorobenzene	8.46	Spike	P	0 - 36
2427281	Kepone	6.23	Spike	P	0 - 85
2427281	Lambda-Cyhalothrin	5.74	Spike	P	0 - 55
2427281	Methoprene	0.247	Spike	P	0 - 53
2427281	Methoxychlor	17.5	Spike	P	0 - 50
2427281	MGK-264	0.942	Spike	P	0 - 43
2427281	Mirex	10.2	Spike	P	0 - 40
2427281	Oxychlordane	8.89	Spike	P	0 - 31
2427281	Permethrin	10.7	Spike	P	0 - 50
2427281	Phenothrin	3.86	Spike	P	0 - 58
2427281	Piperonyl Butoxide	6.29	Spike	P	0 - 100
2427281	Prallethrin	10.4	Spike	P	0 - 39
2427281	Tau-Fluvalinate	5.39	Spike	P	0 - 54
2427281	Tetramethrin	4.27	Spike	P	0 - 51
2427281	Trans-Nonachlor	10.0	Spike	P	0 - 39
2427281	Triclosan Methyl	13.1	Spike	P	0 - 31
2427281	Trifluralin	2.66	Spike	P	0 - 22
2427568	PCB-1016	1.40	Spike	P	0 - 24
2427568	PCB-1260	16.9	Spike	P	0 - 30

Reference Method: EPA 8276
Batch ID: P433162

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427568	Chlordane	6.12	Spike	P	0 - 28
2427568	Toxaphene	5.10	Spike	P	0 - 27

Reference Method: EPA 8321B
Batch ID: P433067

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427047	Acesulfame K	1.45	Spike	P	0 - 30
2427047	AMPA	2.14	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P433067

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427047	Endothall	2.39	Spike	P	0 - 30
2427047	Glufosinate	3.43	Spike	P	0 - 30
2427047	Glyphosate	10.5	Spike	P	0 - 30
2427047	Sucralose	4.00	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P433126

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427264	2,4-D	8.54	Spike	P	0 - 30
2427264	2,4,5-T	13.1	Spike	P	0 - 30
2427264	Acetaminophen	2.25	Spike	P	0 - 30
2427264	Acetamiprid	0.0553	Spike	P	0 - 30
2427264	Afidopyropen	3.52	Spike	P	0 - 30
2427264	Bentazon	4.23	Spike	P	0 - 30
2427264	Benzovindiflupyr	4.14	Spike	P	0 - 30
2427264	Carbamazepine	1.19	Spike	P	0 - 30
2427264	Clothianidin	0.980	Spike	P	0 - 30
2427264	Dinotefuran	3.31	Spike	P	0 - 30
2427264	Diuron	26.7	Spike	P	0 - 30
2427264	Fenuron	16.2	Spike	P	0 - 30
2427264	Fluridone	3.34	Spike	P	0 - 30
2427264	Hydrocodone	4.00	Spike	P	0 - 30
2427264	Ibuprofen	4.74	Spike	P	0 - 30
2427264	Imazapyr	17.0	Spike	P	0 - 30
2427264	Imidacloprid	3.90	Spike	P	0 - 30
2427264	Linuron	2.21	Spike	P	0 - 30
2427264	Mandestrobin	3.85	Spike	P	0 - 30
2427264	MCP	1.83	Spike	P	0 - 30
2427264	Naproxen	7.62	Spike	P	0 - 30
2427264	Primidone	10.9	Spike	P	0 - 30
2427264	Pyraclostrobin	9.65	Spike	P	0 - 30
2427264	Silvex	0.871	Spike	P	0 - 30
2427264	Thiamethoxam	0.222	Spike	P	0 - 30
2427264	Tolfenpyrad	8.07	Spike	P	0 - 30
2427264	Triclopyr	3.66	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P433354

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427094	Total Alkalinity	0.634	Sample	P	0 - 3.9

Reference Method: SM 2320 B-2011
Batch ID: P433368

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427118	Total Alkalinity	1.69	Sample	P	0 - 3.9

Quality Assurance Report Precision

Reference Method: SM 2320 B-2011
Batch ID: P433491

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2428377	Total Alkalinity	1.31	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P433607

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2426991	TDS	0.565	Sample	P	0 - 10

Reference Method: SM 2540 C-2015
Batch ID: P433609

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427563	TDS	7.23	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P433357

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427094	Fluoride	0.500	Spike	P	0 - 1.9

Reference Method: SM 4500-F- C-2011
Batch ID: P433369

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427118	Fluoride	0.0	Spike	P	0 - 1.9

Reference Method: SM 4500-F- C-2011
Batch ID: P433493

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2428377	Fluoride	0.984	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2011
Batch ID: P433375

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427096	Organic Carbon	3.16	Spike	P	0 - 20

Reference Method: SM 5310 B-2011
Batch ID: P433427

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427120	Organic Carbon	0.753	Spike	P	0 - 20

Quality Assurance Report Precision

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

Quality Assurance Report Surrogates

Lab Sample ID: 2427274

Field Sample ID: G1SW0095

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	67.0	P	37 - 129
EPA 8270E	Decachlorobiphenyl	57.8	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	41.2	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	33.3	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	45.7	P	28 - 102
EPA 8276	PCNB	90.0	P	49 - 115

Lab Sample ID: 2427275

Field Sample ID: G5SW0134

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	80.5	P	37 - 129
EPA 8270E	Decachlorobiphenyl	75.0	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	48.6	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	46.0	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	53.7	P	28 - 102
EPA 8276	PCNB	105	P	49 - 115

Lab Sample ID: 2427276

Field Sample ID: G1SW0095

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	118	P	30 - 160
EPA 8321B	Acetaminophen-d4	73.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	51.3	P	30 - 160
EPA 8321B	Diuron-d6	52.9	P	30 - 160
EPA 8321B	Endothall-d6	80.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	62.5	P	30 - 160
EPA 8321B	Ibuprofen-d3	65.9	P	30 - 160
EPA 8321B	Primidone-d5	71.3	P	30 - 160
EPA 8321B	Sucralose-d6	100	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A120689

Included Lab Sample IDs: 2427115, 2427117, 2427118, 2427119

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.4	97.0	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A120690

Included Lab Sample IDs: 2427115, 2427117, 2427118, 2427119

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A120701

Included Lab Sample IDs: 2427116

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	96.0	94.0	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A120726

Included Lab Sample IDs: 2427276

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	98.7	108	P/P	60 - 160
Sucralose	83.1	91.6	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A120732

Included Lab Sample IDs: 2427116

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	103	100	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A120735

Included Lab Sample IDs: 2427276

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	83.5	94.0	P/P	50 - 150
2,4,5-T	102	102	P/P	50 - 150
Acetaminophen	93.7	77.8	P/P	60 - 160
Acetamiprid	102	105	P/P	50 - 150
Afidopyropen	90.2	74.4	P/P	50 - 150
Bentazon	116	134	P/P	50 - 160
Benzovindiflupyr	103	105	P/P	50 - 150
Carbamazepine	108	103	P/P	60 - 150
Clothianidin	105	107	P/P	60 - 150
Dinotefuran	120	129	P/P	50 - 150
Diuron	99.3	97.0	P/P	60 - 160
Fenuron	106	109	P/P	60 - 150
Fluridone	102	103	P/P	60 - 160
Hydrocodone	117	111	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A120735
Included Lab Sample IDs: 2427276

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ibuprofen	106	102	P/P	50 - 160
Imazapyr	90.3	94.7	P/P	50 - 150
Imidacloprid	97.6	96.6	P/P	60 - 150
Linuron	108	96.6	P/P	60 - 150
Mandestrobin	106	107	P/P	50 - 150
MCPP	95.9	95.6	P/P	50 - 150
Naproxen	141	104	P/P	50 - 160
Primidone	104	98.9	P/P	60 - 150
Pyraclostrobin	116	118	P/P	60 - 150
Silvex	76.0	89.1	P/P	50 - 150
Thiamethoxam	114	117	P/P	50 - 150
Tolfenpyrad	104	107	P/P	60 - 150
Triclopyr	90.3	101	P/P	50 - 150

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A120763
Included Lab Sample IDs: 2427115, 2427117, 2427118

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.6	101	P/P	90 - 110
Sulfate	100	101	P/P	90 - 110
Sulfate	101	100	P/P	90 - 110
Sulfate	99.5	101	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A120764
Included Lab Sample IDs: 2427276

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	120	134	P/P	60 - 160
Endothall	95.4	100	P/P	60 - 160
Glufosinate	87.0	88.3	P/P	60 - 160
Glyphosate	103	102	P/P	60 - 160

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A120767
Included Lab Sample IDs: 2427120, 2427121, 2427122

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	101	98.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A120769
Included Lab Sample IDs: 2427116

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	102	103	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A120795

Included Lab Sample IDs: 2427120, 2427121

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	99.1	96.5	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A120803

Included Lab Sample IDs: 2427115

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	95.4	93.9	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A120803

Included Lab Sample IDs: 2427115

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A120806

Included Lab Sample IDs: 2427277, 2427278

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	103	103	P/P	90 - 110
Antimony	94.3	96.7	P/P	90 - 110
Arsenic	97.1	98.4	P/P	90 - 110
Beryllium	92.5	93.1	P/P	90 - 110
Cadmium	96.2	97.1	P/P	90 - 110
Chromium	90.8	92.8	P/P	90 - 110
Cobalt	98.4	98.5	P/P	90 - 110
Copper	96.9	97.6	P/P	90 - 110
Lead	94.4	95.6	P/P	90 - 110
Manganese	95.2	96.7	P/P	90 - 110
Molybdenum	95.9	97.9	P/P	90 - 110
Nickel	97.7	98.9	P/P	90 - 110
Selenium	96.3	98.1	P/P	90 - 110
Silver	96.6	97.9	P/P	90 - 110
Thallium	98.2	99.7	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A120807

Included Lab Sample IDs: 2427117, 2427118

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	95.5	90.9	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A120807

Included Lab Sample IDs: 2427117, 2427118

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

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-2011

Run ID: A120813

Included Lab Sample IDs: 2427116, 2427121

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	93.8	95.4	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A120816

Included Lab Sample IDs: 2427277, 2427278

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	95.2	95.9	P/P	90 - 110
Calcium	95.9	97.8	P/P	90 - 110
Iron	97.7	99.2	P/P	90 - 110
Iron	99.2	98.7	P/P	90 - 110
Magnesium	96.8	98.5	P/P	90 - 110
Magnesium	98.5	97.9	P/P	90 - 110
Strontium	101	99.8	P/P	90 - 110
Strontium	101	101	P/P	90 - 110
Tin	101	101	P/P	90 - 110
Tin	98.4	101	P/P	90 - 110
Titanium	101	100	P/P	90 - 110
Titanium	98.9	101	P/P	90 - 110
Vanadium	101	99.8	P/P	90 - 110
Vanadium	98.4	101	P/P	90 - 110
Zinc	100	100	P/P	90 - 110
Zinc	97.5	100	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A120819

Included Lab Sample IDs: 2427274, 2427275

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	103		P	80 - 120
Alpha-BHC	99.5		P	80 - 120
Alpha-Chlordane	109		P	80 - 120
Beta-BHC	107		P	80 - 120
Beta-Cyfluthrin	113		P	80 - 120
Bifenthrin	108		P	80 - 120
Carbophenothion	102		P	80 - 120
Chlorothalonil	97.9		P	80 - 120
Cis-Nonachlor	108		P	80 - 120
Cypermethrin	111		P	80 - 120
Dacthal	99.4		P	80 - 120
DDD-p,p'	106		P	80 - 120
DDE-p,p'	108		P	80 - 120
DDT-p,p'	101		P	80 - 120
Delta-BHC	100		P	80 - 120
Deltamethrin	112		P	80 - 120
Dichlobenil	112		P	80 - 120
Dicofol	96.8		P	80 - 120
Dieldrin	105		P	80 - 120
Endosulfan I	104		P	80 - 120
Endosulfan II	96.9		P	80 - 120
Endosulfan Sulfate	91.5		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A120819

Included Lab Sample IDs: 2427274, 2427275

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Endrin	107		P	80 - 120
Endrin Aldehyde	99.6		P	80 - 120
Endrin Ketone	94.4		P	80 - 120
Esfenvalerate	107		P	80 - 120
Ethalfuralin	100		P	80 - 120
Fenpropathrin	112		P	80 - 120
Gamma-BHC	105		P	80 - 120
Gamma-Chlordane	101		P	80 - 120
Heptachlor	81.0		P	80 - 120
Heptachlor Epoxide	107		P	80 - 120
Hexachlorobenzene	107		P	80 - 120
Kepone	56.6*		F	80 - 120
Lambda-Cyhalothrin	111		P	80 - 120
Methoprene	108		P	80 - 120
Methoxychlor	109		P	80 - 120
MGK-264	106		P	80 - 120
Mirex	105		P	80 - 120
Oxychlordane	108		P	80 - 120
Permethrin	109		P	80 - 120
Phenothrin	109		P	80 - 120
Piperonyl Butoxide	109		P	80 - 120
Prallethrin	105		P	80 - 120
Tau-Fluvalinate	105		P	80 - 120
Tetramethrin	107		P	80 - 120
Trans-Nonachlor	106		P	80 - 120
Triclosan Methyl	105		P	80 - 120
Trifluralin	101		P	80 - 120

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A120823

Included Lab Sample IDs: 2427116

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A120826

Included Lab Sample IDs: 2427120, 2427121, 2427122

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A120832

Included Lab Sample IDs: 2427122

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.9	99.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-2011

Run ID: A120842

Included Lab Sample IDs: 2427120, 2427122

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.6	97.4	P/P	90 - 110
Organic Carbon	98.2	96.6	P/P	90 - 110

Reference Method: EPA 8276

Run ID: A120861

Included Lab Sample IDs: 2427274, 2427275

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	95.2		P	80 - 120
Toxaphene	93.2		P	80 - 120

Reference Method: SM 2320 B-2011

Run ID: A120868

Included Lab Sample IDs: 2427119

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	96.8	93.8	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A120868

Included Lab Sample IDs: 2427119

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	103	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A120871

Included Lab Sample IDs: 2427274, 2427275

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	96.5		P	80 - 120
PCB-1260	110		P	80 - 120

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A120892

Included Lab Sample IDs: 2427120, 2427121, 2427122

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	104	105	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A120895

Included Lab Sample IDs: 2427119

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	97.2	97.6	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		Precision	
						LCS	MS
DEP SOP: NU-094-1	Color (true)	97.9				2.89	
EPA 180.1 Rev. 2.0	Turbidity	99.3				3.23	
	Turbidity	99.3				6.44	
EPA 200.7 Rev. 4.4	Calcium	100					0.163
	Iron	103	96.3	95.7			0.614
	Magnesium	100					0.0460
	Strontium	103	94.5	95.5			0.561
	Tin	105	86.0	80.7			5.49
	Titanium	103	102	100			1.61
	Vanadium	103	100	97.9			2.44
	Zinc	101	96.6	93.2			3.64
EPA 200.8 Rev. 5.4	Aluminum	101	102	104			1.72
	Antimony	95.9	100	102			1.93
	Arsenic	96.5	104	106			2.06
	Beryllium	91.1	94.2	92.6			1.77
	Cadmium	97.6	94.5	95.9			1.45
	Chromium	92.8	92.6	94.5			2.03
	Cobalt	98.6	94.5	95.7			1.35
	Copper	96.0	101	102			1.53
	Lead	96.2	99.0	101			1.83
	Manganese	96.8	94.8	96.3			1.19
	Molybdenum	97.6	108	109			0.974
	Nickel	96.4	103	104			1.36
	Selenium	97.1	101	100			1.02
	Silver	106	98.8	101			1.87
	Thallium	100	99.9	103			3.28
EPA 300.0 Rev. 2.1	Chloride	99.7	101	99.6		0.573	
	Chloride	98.6	98.0			0.523	
	Sulfate	99.7	100	101		0.932	
	Sulfate	99.7	98.6	99.7		0.839	
EPA 350.1 Rev. 2.0	Ammonia-N	91.8	97.0	99.2			1.50
	Ammonia-N	99.8	100	99.2			0.972
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101	98.3	102			3.09
	Kjeldahl Nitrogen	102	108	103			3.27
	Kjeldahl Nitrogen	101	98.5	93.4			4.22
EPA 353.2 Rev. 2.0	NO2NO3-N	95.0	96.0	96.0			0.0
	NO2NO3-N	104	96.1	95.6			0.596
EPA 365.1 Rev. 2.0	Total-P	104					0.714
	Total-P	107	108	105			1.54
EPA 8270E	Aldrin	41.0	44.0	51.4			15.5
	Alpha-BHC	89.4	85.8	90.1			4.98
	Alpha-Chlordane	84.1	66.5	79.6			17.8
	Beta-BHC	77.7	83.4	79.0			5.43
	Beta-Cyfluthrin	82.1	87.6	94.0			7.07
	Bifenthrin	50.2	62.1	64.8			4.28
	Carbophenothion	43.9	57.5	51.1			11.8
	Chlorothalonil	47.8	82.0	65.8			22.0
	Cis-Nonachlor	79.5	68.0	77.9			13.5
	Cypermethrin	75.1	89.9	84.6			6.02
	Dacthal	91.2	81.6	90.0			9.78
	DDD-p,p'	79.0	66.4	74.5			11.5
	DDE-p,p'	77.5	70.1	78.0			10.7
	DDT-p,p'	63.2	66.5	68.0			2.10
	Delta-BHC	72.6	93.5	79.4			16.3

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Deltamethrin	99.9	96.8	111		13.5
	Dichlobenil	74.8	66.6	66.1		0.716
	Dicofol	76.5	70.3	81.6		14.9
	Dieldrin	62.3	67.6	64.4		4.77
	Endosulfan I	65.4	74.7	69.1		7.90
	Endosulfan II	95.7	88.8	101		12.6
	Endosulfan Sulfate	79.8	72.4	73.6		1.65
	Endrin	84.6	71.0	81.7		13.9
	Endrin Aldehyde	86.0	72.1	76.3		5.73
	Endrin Ketone	111	109	118		8.39
	Esfenvalerate	64.2	82.6	86.0		4.09
	Ethalfuralin	68.5	68.1	71.1		4.20
	Fenpropathrin	61.7	72.5	78.9		8.46
	Gamma-BHC	104	109	111		1.74
	Gamma-Chlordane	72.8	68.0	75.3		10.3
	Heptachlor	68.3	72.7	81.2		11.0
	Heptachlor Epoxide	62.8	66.7	59.7		11.1
	Hexachlorobenzene	43.3	48.7	44.7		8.46
	Kepone	37.6	34.2	32.1		6.23
	Lambda-Cyhalothrin	57.6	75.1	70.9		5.74
	Methoprene	59.1	63.5	63.6		0.247
	Methoxychlor	86.8	75.9	90.5		17.5
	MGK-264	70.8	81.9	82.7		0.942
	Mirex	65.4	63.5	70.4		10.2
	Oxychlordane	74.1	67.3	73.6		8.89
	PCB-1016	74.6	66.7	65.8		1.40
	PCB-1260	73.5	69.2	82.0		16.9
	Permethrin	63.7	75.6	84.2		10.7
	Phenothrin	38.2	64.2	61.8		3.86
	Piperonyl Butoxide	95.4	109	102		6.29
	Prallethrin	68.1	61.0	67.7		10.4
	Tau-Fluvalinate	55.4	80.6	76.4		5.39
	Tetramethrin	62.8	80.6	77.2		4.27
	Trans-Nonachlor	79.0	71.0	78.5		10.0
	Triclosan Methyl	59.6	69.8	61.2		13.1
	Trifluralin	73.5	68.1	66.3		2.66
EPA 8276	Chlordane	84.0	72.1	76.6		6.12
	Toxaphene	99.4	87.0	91.6		5.10
EPA 8321B	2,4-D	76.6				8.54
	2,4,5-T	69.9	127	111		13.1
	Acesulfame K	101	112	113		1.45
	Acetaminophen	77.6	77.1	78.9		2.25
	Acetamiprid	83.8	42.3	42.4		0.0553
	Afidopyropen	49.9	50.1	51.9		3.52
	AMPA	139	129	132		2.14
	Bentazon	120				4.23
	Benzovindiflupyr	77.3	84.0	80.6		4.14
	Carbamazepine	71.5	43.7	43.2		1.19
	Clothianidin	86.3	69.1	68.4		0.980
	Dinotefuran	103	61.3	63.4		3.31
	Diuron	66.8	30.4	39.8		26.7
	Endothall	97.3	92.4	94.7		2.39
	Fenuron	95.0	52.0	44.2		16.2
	Fluridone	88.5	92.4	87.6		3.34

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
			LCS		SMP	MS
EPA 8321B	Glufosinate	91.2	82.1	85.0		3.43
	Glyphosate	98.3	84.3	93.6		10.5
	Hydrocodone	101	52.4	54.5		4.00
	Ibuprofen	73.9	73.5	70.1		4.74
	Imazapyr	80.5				17.0
	Imidacloprid	82.2	101	105		3.90
	Linuron	71.8	49.4	48.3		2.21
	Mandestrobin	87.4	83.7	80.5		3.85
	MCPP	83.0	133	135		1.83
	Naproxen	84.0	99.2	91.9		7.62
	Primidone	83.4	62.7	69.9		10.9
	Pyraclostrobin	67.5	81.1	73.7		9.65
	Silvex	81.3	125	126		0.871
	Sucralose	90.0	78.9	82.1		4.00
	Thiamethoxam	90.9	67.4	67.6		0.222
	Tolfenpyrad	34.4	58.7	54.2		8.07
	Triclopyr	75.2	109	105		3.66
SM 2320 B-2011	Total Alkalinity	95.7			0.634	
	Total Alkalinity	93.9			1.69	
	Total Alkalinity	97.2			1.31	
SM 2540 C-2015	TDS	100			0.565	
	TDS	97.1			7.23	
SM 2540 D-2015	TSS	95.8				
	TSS	88.8				
SM 4500-F- C-2011	Fluoride	95.4	98.1	97.5		0.500
	Fluoride	99.0	101	101		0.0
	Fluoride	99.3	99.0	97.9		0.984
SM 5310 B-2011	Organic Carbon	93.2	91.8	95.5		3.16
	Organic Carbon	96.6	96.9	97.9		0.753

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2427115, 2427117, 2427118, 2427119
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2427115, 2427117, 2427118, 2427119
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2427277, 2427278
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2427277, 2427278
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2427115, 2427117, 2427118, 2427119
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2427115, 2427117, 2427118, 2427119
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2427116, 2427120, 2427121, 2427122
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2427116, 2427120, 2427121, 2427122
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2427116, 2427120, 2427121, 2427122
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2427116, 2427120, 2427121, 2427122
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2427274, 2427275
EPA 8270E	PCBs in water matrices by GC/MS/MS	2427274, 2427275
EPA 8276	Chlordane and Toxaphene in water matrices by GC/MS with Negative Chemical Ionization	2427274, 2427275
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2427276
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2427115, 2427117, 2427118, 2427119
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2427277, 2427278
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2427115, 2427117, 2427118, 2427119

Reference Method Descriptions

Method	Description	Associated Samples
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2427115, 2427117, 2427118, 2427119
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2427115, 2427117, 2427118, 2427119
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2427116, 2427120, 2427121, 2427122

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: NU-094-1	07/27/2023			07/27/2023 15:56	Alexis Price	2427115, 2427117
	07/27/2023			07/27/2023 15:57	Alexis Price	2427118
	07/27/2023			07/27/2023 15:58	Alexis Price	2427119
EPA 180.1 Rev. 2.0	07/27/2023			07/27/2023 14:53	Alexis Price	2427115
	07/27/2023			07/27/2023 14:54	Alexis Price	2427117
	07/27/2023			07/27/2023 14:57	Alexis Price	2427118
EPA 200.7 Rev. 4.4	07/27/2023			07/27/2023 14:59	Alexis Price	2427119
	07/27/2023	07/31/2023 13:25	George D Taylor	08/02/2023 22:45	Samatha Luckman	2427277
	07/27/2023	07/31/2023 13:25	George D Taylor	08/02/2023 22:57	Samatha Luckman	2427277
EPA 200.8 Rev. 5.4	07/27/2023	07/31/2023 13:25	George D Taylor	08/02/2023 23:39	Samatha Luckman	2427278
	07/27/2023	07/31/2023 13:25	George D Taylor	08/02/2023 18:48	Emily M Philpot	2427277
	07/27/2023	07/31/2023 13:25	George D Taylor	08/02/2023 18:57	Emily M Philpot	2427278
EPA 300.0 Rev. 2.1	07/27/2023			07/31/2023 21:40	James L Waggeberby	2427115
	07/27/2023			07/31/2023 22:35	James L Waggeberby	2427118
	07/27/2023			07/31/2023 22:58	James L Waggeberby	2427119
EPA 350.1 Rev. 2.0	07/27/2023			08/02/2023 15:09	James L Waggeberby	2427115
	07/27/2023			08/02/2023 15:32	James L Waggeberby	2427117
	07/27/2023			08/02/2023 15:55	James L Waggeberby	2427118
EPA 351.2 Rev. 2.0	07/27/2023			08/11/2023 14:32	Anna M. Plaviak	2427119
	07/27/2023			08/01/2023 12:26	Ping Hua	2427122
	07/27/2023			08/01/2023 12:28	Ping Hua	2427120
EPA 353.2 Rev. 2.0	07/27/2023			08/01/2023 12:30	Ping Hua	2427121
	07/27/2023			08/03/2023 13:37	Ping Hua	2427116
	07/27/2023	07/31/2023 10:34	Dana G. Hughes	08/01/2023 14:32	Samantha L Bates	2427116
EPA 365.1 Rev. 2.0	07/27/2023	08/01/2023 10:22	Dana G. Hughes	08/02/2023 12:34	Samantha L Bates	2427120
	07/27/2023	08/01/2023 10:22	Dana G. Hughes	08/02/2023 12:36	Samantha L Bates	2427121
	07/27/2023	08/02/2023 10:37	Dana G. Hughes	08/03/2023 14:09	Samantha L Bates	2427122
EPA 8270E	07/27/2023			07/28/2023 10:25	Beverly Y. Sanders	2427116
	07/27/2023			08/08/2023 10:47	Beverly Y. Sanders	2427120
	07/27/2023			08/08/2023 10:52	Beverly Y. Sanders	2427121
EPA 8276	07/27/2023			08/08/2023 10:54	Beverly Y. Sanders	2427122
	07/27/2023	07/28/2023 14:20	Simonne.V. Calhoun	07/31/2023 11:48	Chandler E Cox	2427116
	07/27/2023	08/02/2023 14:24	Alexis Price	08/03/2023 10:11	James L Waggeberby	2427121
EPA 8276	07/27/2023	08/02/2023 14:24	Alexis Price	08/03/2023 10:14	James L Waggeberby	2427120
	07/27/2023	08/02/2023 14:24	Alexis Price	08/03/2023 10:15	James L Waggeberby	2427122
	07/27/2023	08/01/2023 08:00	Fe-Val Siddell	08/02/2023 20:25	Michael Poppell	2427274
EPA 8276	07/27/2023	08/01/2023 08:00	Fe-Val Siddell	08/02/2023 20:57	Michael Poppell	2427275
	07/27/2023	08/01/2023 08:00	Fe-Val Siddell	08/05/2023 00:23	Julie Wi	2427274
	07/27/2023	08/01/2023 08:00	Fe-Val Siddell	08/05/2023 00:53	Julie Wi	2427275
EPA 8276	07/27/2023	08/01/2023 08:00	Fe-Val Siddell	08/05/2023 15:00	Arthur Maknenko	2427274

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8276	07/27/2023	08/01/2023 08:00	Fe-Val Siddell	08/05/2023 15:56	Arthur Maknenko	2427275
EPA 8321B	07/27/2023	07/27/2023 13:00	Hana Lee	07/27/2023 18:48	Tae K Lee	2427276
	07/27/2023	07/27/2023 13:00	Hana Lee	07/31/2023 14:57	Hana Lee	2427276
	07/27/2023	07/27/2023 13:00	Hana Lee	07/31/2023 20:24	Hana Lee	2427276
	07/27/2023	07/28/2023 14:00	Hoor Shaik	07/29/2023 05:37	Juyoung Kim	2427276
	07/27/2023			08/02/2023 04:47	Dale L. Simmons	2427115
SM 2320 B-2011	07/27/2023			08/02/2023 21:31	Dale L. Simmons	2427118
	07/27/2023			08/02/2023 21:58	Dale L. Simmons	2427117
	07/27/2023			08/04/2023 22:27	Dale L. Simmons	2427119
	07/27/2023			08/02/2023 22:57	Samatha Luckman	2427277
	07/27/2023			08/02/2023 23:39	Samatha Luckman	2427278
SM 2340 B-2011	07/27/2023			07/31/2023 14:17	Yijie Li	2427115, 2427117, 2427118, 2427119
SM 2540 C-2015	07/27/2023			07/31/2023 14:17	Yijie Li	2427115, 2427117, 2427118, 2427119
SM 2540 D-2015	07/27/2023			08/02/2023 04:47	Dale L. Simmons	2427115
SM 4500-F- C-2011	07/27/2023			08/02/2023 19:19	Dale L. Simmons	2427118
	07/27/2023			08/02/2023 19:38	Dale L. Simmons	2427117
	07/27/2023			08/04/2023 22:27	Dale L. Simmons	2427119
	07/27/2023			08/02/2023 16:02	Elise M. Gillis	2427116
	07/27/2023			08/02/2023 16:17	Elise M. Gillis	2427121
SM 5310 B-2011	07/27/2023			08/03/2023 21:34	Elise M. Gillis	2427120
	07/27/2023			08/04/2023 01:24	Elise M. Gillis	2427122