Chemical Analysis Report

SE-DIST-2024-02-15-02

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

Event Description: **SMP - South Highlands Canoe**
Request ID: **RQ-2024-01-15-22**
Customer: **SE-DIST**
Project ID: **SMP**

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Certified by: Marek Topolski, Environmental Specialist III

Date Certified: 11-MAR-2024 13:18

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: INDIAN PRAIRE CANAL NEAR SR 70 **Collection Date/Time: 02/14/2024 09:00**

Field ID: G4SE0192 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2469168	EPA 8270E	Aldrin	0.67	U	ng/L	P441759	
		Alpha-BHC	0.10	U	ng/L	P441759	
		Alpha-Chlordane	0.21	U	ng/L	P441759	
		PCB-1016	2.1	U	ng/L	P441759	
		Beta-BHC	0.10	U	ng/L	P441759	
		PCB-1221	2.1	U	ng/L	P441759	
		Beta-Cyfluthrin	1.3	U	ng/L	P441759	
		PCB-1232	2.1	U	ng/L	P441759	
		Bifenthrin	0.52	UJ	ng/L	P441759	MS
		PCB-1242	2.1	U	ng/L	P441759	
		PCB-1248	2.1	U	ng/L	P441759	
		Chlorothalonil	3.7	U	ng/L	P441759	
		PCB-1254	2.1	U	ng/L	P441759	
		Cis-Nonachlor	0.21	U	ng/L	P441759	
		PCB-1260	2.1	U	ng/L	P441759	
		Cypermethrin	1.6	U	ng/L	P441759	
		Dacthal	0.16	U	ng/L	P441759	
		DDD-p,p'	0.26	U	ng/L	P441759	
		DDE-p,p'	0.21	U	ng/L	P441759	
		DDT-p,p'	1.7	I	ng/L	P441759	
		Delta-BHC	0.41	U	ng/L	P441759	
		Deltamethrin	1.3	U	ng/L	P441759	
		Dichlobenil	0.26	U	ng/L	P441759	
		Dicofol	1.3	U	ng/L	P441759	
		Dieldrin	0.41	U	ng/L	P441759	
		Endosulfan I	0.41	U	ng/L	P441759	
		Endosulfan II	0.93	U	ng/L	P441759	
		Endosulfan Sulfate	0.31	U	ng/L	P441759	
		Endrin	0.93	U	ng/L	P441759	
		Endrin Aldehyde	0.78	U	ng/L	P441759	
		Endrin Ketone	0.41	U	ng/L	P441759	
		Esfenvalerate	0.78	U	ng/L	P441759	
		Ethalfluralin	0.16	U	ng/L	P441759	
		Fenpropathrin	0.26	U	ng/L	P441759	
		Gamma-BHC	0.13	U	ng/L	P441759	
		Gamma-Chlordane	0.21	U	ng/L	P441759	
		Heptachlor	0.21	UJ	ng/L	P441759	MS
		Heptachlor Epoxide	0.26	U	ng/L	P441759	
		Hexachlorobenzene**	1.0	U	ng/L	P441759	
		Kepone	14	U	ng/L	P441759	
		Lambda-Cyhalothrin	0.78	U	ng/L	P441759	
		Methoprene	0.78	U	ng/L	P441759	
		Methoxychlor	0.31	U	ng/L	P441759	
		MGK-264	0.21	U	ng/L	P441759	

Field ID: G4SE0192 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2469168	EPA 8270E	Mirex	0.36	U	ng/L	P441759	
		Oxychlordane	0.31	UJ	ng/L	P441759	MS
		Permethrin	1.7	U	ng/L	P441759	
		Phenothrin	0.93	UJ	ng/L	P441759	MS
		Piperonyl Butoxide	0.29	I	ng/L	P441759	
		Prallethrin	2.1	U	ng/L	P441759	
		Tau-Fluvalinate	0.26	U	ng/L	P441759	
		Tetramethrin	0.78	U	ng/L	P441759	
		Trans-Nonachlor	0.21	U	ng/L	P441759	
		Triclosan Methyl	0.16	U	ng/L	P441759	
		Trifluralin	0.21	U	ng/L	P441759	
	EPA 8276	Chlordane	2.1	U	ng/L	P441759	
		Toxaphene	16	U	ng/L	P441759	
2469171	EPA 200.7 Rev. 4.4	Calcium	12.5		mg/L	P441577	
		Iron	380		ug/L	P441577	
		Magnesium	5.50		mg/L	P441577	
		Potassium	4.7		mg/L	P441577	
		Sodium	11.6		mg/L	P441577	
		Strontium	348		ug/L	P441577	
		Tin	3.0	U	ug/L	P441577	
		Titanium	0.75	U	ug/L	P441577	
		Vanadium	2.0	U	ug/L	P441577	
		Zinc	8.8	I	ug/L	P441577	
	EPA 200.8 Rev. 5.4	Aluminum	107		ug/L	P441577	
		Antimony	0.050	U	ug/L	P441577	
		Arsenic	0.69		ug/L	P441577	
		Barium	15.4		ug/L	P441577	
		Beryllium	0.013	I	ug/L	P441577	
		Boron	35.1		ug/L	P441577	
		Cadmium	0.020	U	ug/L	P441577	
		Chromium	0.42	I	ug/L	P441577	
		Cobalt	0.121		ug/L	P441577	
		Copper	0.40	U	ug/L	P441577	
		Lead	0.20	U	ug/L	P441577	
		Manganese	7.54		ug/L	P441577	
		Molybdenum	0.21	I	ug/L	P441577	
		Nickel	0.50	U	ug/L	P441577	
		Selenium	0.20	U	ug/L	P441577	
		Silver	0.010	U	ug/L	P441577	
		Thallium	0.10	U	ug/L	P441577	
	SM 2340 B-2011	Hardness	53.9		mg/L	P441577	

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

Sample Location: LAKE GRASSY NEAR CENTER **Collection Date/Time: 02/14/2024 10:00**

Field ID: G4SE0190 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2469154	DEP SOP: NU-094-1	Color (true)	11		PCU	P441496	
	EPA 180.1 Rev. 2.0	Turbidity	4.3	A	NTU	P441494	
	EPA 300.0 Rev. 2.1	Chloride	21		mg Cl/L	P442055	
		Sulfate	23		mg SO4/L	P442059	
	SM 2320 B-2011	Total Alkalinity	33		mg CaCO3/L	P441938	
	SM 2540 C-2015	TDS	103	A	mg/L	P441929	
	SM 2540 D-2015	TSS	3	I A	mg/L	P441901	
	SM 4500-F- C-2011	Fluoride	0.081	I	mg F/L	P441941	
2469155	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P441751	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.67		mg N/L	P441575	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.14		mg N/L	P441675	
	EPA 365.1 Rev. 2.0	Total-P	0.011		mg P/L	P441684	
	SM 5310 B-2014	Organic Carbon	7.9		mg C/L	P441610	

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: LAKE HENRY NEAR CENTER **Collection Date/Time: 02/14/2024 10:40**

Field ID: G4SE0162 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2469158	DEP SOP: NU-094-1	Color (true)	11		PCU	P441496	
	EPA 180.1 Rev. 2.0	Turbidity	6.6		NTU	P441494	
	EPA 300.0 Rev. 2.1	Chloride	22		mg Cl/L	P442055	
		Sulfate	28		mg SO4/L	P442059	
	SM 2320 B-2011	Total Alkalinity	15		mg CaCO3/L	P441938	
	SM 2540 C-2015	TDS	100		mg/L	P441929	
	SM 2540 D-2015	TSS	6	I	mg/L	P441901	
	SM 4500-F- C-2011	Fluoride	0.069	I	mg F/L	P441941	
2469159	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P441751	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.84		mg N/L	P441575	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.046		mg N/L	P442234	
	EPA 365.1 Rev. 2.0	Total-P	0.023		mg P/L	P441687	
	SM 5310 B-2014	Organic Carbon	7.3		mg C/L	P441610	

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: LITTLE LAKE GRASSY NEAR CENTER **Collection Date/Time: 02/14/2024 11:30**

Field ID: G4SE0191 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2469156	DEP SOP: NU-094-1	Color (true)	7.6	A	PCU	P441496	
	EPA 180.1 Rev. 2.0	Turbidity	2.7		NTU	P441494	
	EPA 300.0 Rev. 2.1	Chloride	16		mg Cl/L	P442055	
		Sulfate	53		mg SO4/L	P442059	
	SM 2320 B-2011	Total Alkalinity	55		mg CaCO3/L	P441938	
	SM 2540 C-2015	TDS	174		mg/L	P441929	
	SM 2540 D-2015	TSS	4	I	mg/L	P441901	
	SM 4500-F- C-2011	Fluoride	0.21		mg F/L	P441941	
2469157	EPA 350.1 Rev. 2.0	Ammonia-N	0.005		mg N/L	P441751	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.97		mg N/L	P441575	
	EPA 353.2 Rev. 2.0	NO2NO3-N	3.8		mg N/L	P442234	
	EPA 365.1 Rev. 2.0	Total-P	0.013		mg P/L	P441687	
	SM 5310 B-2014	Organic Carbon	7.0		mg C/L	P441610	

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: BUCK LAKE NEAR CENTER **Collection Date/Time: 02/14/2024 12:05**

Field ID: G4SE0167 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2469160	DEP SOP: NU-094-1	Color (true)	5.0	I	PCU	P441496	
	EPA 180.1 Rev. 2.0	Turbidity	0.45	I	NTU	P441494	
	EPA 300.0 Rev. 2.1	Chloride	14		mg Cl/L	P442055	
		Sulfate	54		mg SO4/L	P442059	
	SM 2320 B-2011	Total Alkalinity	21	A	mg CaCO3/L	P441938	
	SM 2540 C-2015	TDS	175		mg/L	P441929	
	SM 2540 D-2015	TSS	2	U	mg/L	P441901	
	SM 4500-F- C-2011	Fluoride	0.081	I	mg F/L	P441941	
2469161	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P441751	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.38	I	mg N/L	P442340	
	EPA 353.2 Rev. 2.0	NO2NO3-N	10		mg N/L	P441675	
	EPA 365.1 Rev. 2.0	Total-P	0.004	I	mg P/L	P441687	
	SM 5310 B-2014	Organic Carbon	3.8		mg C/L	P441610	
2469166	EPA 8321B	Aldicarb	0.020	U	ug/L	P441467	
		Aldicarb Sulfone	0.0020	U	ug/L	P441467	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P441467	MS
		Carbaryl	0.0020	U	ug/L	P441467	
		Carbofuran	0.0020	U	ug/L	P441467	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P441467	
		Methiocarb	0.0020	U	ug/L	P441467	
		Methomyl	0.0020	U	ug/L	P441467	
		Oxamyl	0.0020	U	ug/L	P441467	
		Propoxur	0.0020	U	ug/L	P441467	
2469167		2,4-D	0.0048	I	ug/L	P441446	
		Acesulfame K	0.10	U	ug/L	P441572	
		2,4,5-T	0.0040	U	ug/L	P441446	
		AMPA	0.10	U	ug/L	P441572	
		Acetaminophen	0.0080	U	ug/L	P441446	
		Acetamiprid	0.0020	U	ug/L	P441446	
		Endothall	0.25	U	ug/L	P441572	
		Glufosinate	0.10	U	ug/L	P441572	
		Glyphosate	0.10	U	ug/L	P441572	
		Afidopyropen	0.0020	U	ug/L	P441446	
		Bentazon	8.0E-04	U	ug/L	P441446	
		Sucralose	0.011	I	ug/L	P441572	
		Benzovindiflupyr	0.0020	U	ug/L	P441446	
		Carbamazepine	8.0E-04	U	ug/L	P441446	
		Clothianidin	0.052		ug/L	P441446	
		Dinotefuran	0.0020	U	ug/L	P441446	
		Diuron	0.044		ug/L	P441446	
		Fenuron	0.032	U	ug/L	P441446	
		Fluridone	8.0E-04	U	ug/L	P441446	
		Imazapyr	0.0040	U	ug/L	P441446	
		Hydrocodone	0.0020	U	ug/L	P441446	

Field ID: G4SE0167 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2469167	EPA 8321B	Ibuprofen	0.080	U	ug/L	P441446	
		Imidacloprid	0.23		ug/L	P441446	
		Linuron	0.0040	U	ug/L	P441446	
		Mandestrobin	0.0020	U	ug/L	P441446	
		MCPP	0.0020	U	ug/L	P441446	
		Naproxen	0.0080	U	ug/L	P441446	
		Primidone	0.0040	U	ug/L	P441446	
		Pyraclostrobin	0.0020	U	ug/L	P441446	
		Silvex	0.0040	U	ug/L	P441446	
		Thiamethoxam	0.028		ug/L	P441446	
		Tolfenpyrad	0.0020	U	ug/L	P441446	
		Triclopyr	0.0040	U	ug/L	P441446	
2469169	EPA 8270E	Aldrin	0.67	U	ng/L	P441759	
		Alpha-BHC	0.10	U	ng/L	P441759	
		Alpha-Chlordane	0.21	U	ng/L	P441759	
		PCB-1016	2.1	U	ng/L	P441759	
		Beta-BHC	0.10	U	ng/L	P441759	
		PCB-1221	2.1	U	ng/L	P441759	
		Beta-Cyfluthrin	1.3	U	ng/L	P441759	
		PCB-1232	2.1	U	ng/L	P441759	
		Bifenthrin	0.51	U	ng/L	P441759	MS
		PCB-1242	2.1	U	ng/L	P441759	
		PCB-1248	2.1	U	ng/L	P441759	
		Chlorothalonil	3.7	U	ng/L	P441759	
		PCB-1254	2.1	U	ng/L	P441759	
		Cis-Nonachlor	0.21	U	ng/L	P441759	
		PCB-1260	2.1	U	ng/L	P441759	
		Cypermethrin	1.5	U	ng/L	P441759	
		Dacthal	0.15	U	ng/L	P441759	
		DDD-p,p'	0.26	U	ng/L	P441759	
		DDE-p,p'	0.21	U	ng/L	P441759	
		DDT-p,p'	1.0	I	ng/L	P441759	
		Delta-BHC	0.41	U	ng/L	P441759	
		Deltamethrin	1.3	U	ng/L	P441759	
		Dichlobenil	0.26	U	ng/L	P441759	
		Dicofol	1.3	U	ng/L	P441759	
		Dieldrin	0.41	U	ng/L	P441759	
		Endosulfan I	0.41	U	ng/L	P441759	
		Endosulfan II	0.92	U	ng/L	P441759	
		Endosulfan Sulfate	0.31	U	ng/L	P441759	
		Endrin	0.92	U	ng/L	P441759	
		Endrin Aldehyde	0.77	U	ng/L	P441759	
		Endrin Ketone	0.41	U	ng/L	P441759	
		Esfenvalerate	0.77	U	ng/L	P441759	
		Ethalfluralin	0.15	U	ng/L	P441759	

Field ID: G4SE0167 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2469169	EPA 8270E	Fenpropathrin	0.26	U	ng/L	P441759	
		Gamma-BHC	0.13	U	ng/L	P441759	
		Gamma-Chlordane	0.21	U	ng/L	P441759	
		Heptachlor	0.21	U	ng/L	P441759	MS
		Heptachlor Epoxide	0.26	U	ng/L	P441759	
		Hexachlorobenzene**	1.0	U	ng/L	P441759	
		Kepone	14	U	ng/L	P441759	
		Lambda-Cyhalothrin	0.77	U	ng/L	P441759	
		Methoprene	0.77	U	ng/L	P441759	
		Methoxychlor	0.31	U	ng/L	P441759	
		MGK-264	0.21	U	ng/L	P441759	
		Mirex	0.36	U	ng/L	P441759	
		Oxychlordane	0.31	U	ng/L	P441759	MS
		Permethrin	1.6	U	ng/L	P441759	
		Phenothrin	0.92	U	ng/L	P441759	MS
		Piperonyl Butoxide	0.15	U	ng/L	P441759	
		Prallethrin	2.1	U	ng/L	P441759	
		Tau-Fluvalinate	0.26	U	ng/L	P441759	
		Tetramethrin	0.77	U	ng/L	P441759	
		Trans-Nonachlor	0.21	U	ng/L	P441759	
		Triclosan Methyl	0.15	U	ng/L	P441759	
		Trifluralin	0.21	U	ng/L	P441759	
	EPA 8276	Chlordane	2.1	U	ng/L	P441759	
		Toxaphene	15	U	ng/L	P441759	
2469170	EPA 8270E	Oxybenzone**	10	U	ng/L	P441876	
		Acetochlor	0.20	U	ng/L	P441876	
		Octinoxate**	150	U	ng/L	P441876	
		Alachlor	0.41	U	ng/L	P441876	
		Avobenzone**	100	U	ng/L	P441876	
		Ametryn	1.1	U	ng/L	P441876	
		Atrazine	4.0		ng/L	P441876	
		PBDE-47**	4.1	U	ng/L	P441876	
		Atrazine Desethyl	1.3	U	ng/L	P441876	
		PBDE-99**	5.1	U	ng/L	P441876	
		Azinphos Methyl	3.1	U	ng/L	P441876	
		Tri-o-cresyl Phosphate**	6.1	U	ng/L	P441876	
		Azoxystrobin	0.41	U	ng/L	P441876	
		Bromacil	11		ng/L	P441876	
		2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)**	12	U	ng/L	P441876	
		Butylate	0.46	U	ng/L	P441876	
		Dechlorane Plus**	31	U	ng/L	P441876	
		Caffeine**	7.7	U	ng/L	P441876	
		Dechlorane 602**	5.1	U	ng/L	P441876	
		Carbophenothion	0.51	U	ng/L	P441876	

Field ID: G4SE0167 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2469170	EPA 8270E	Dechlorane 603**	4.1	U	ng/L	P441876	
		Carfentrazone Ethyl	0.15	U	ng/L	P441876	
		Hexabromobenzene**	6.1	U	ng/L	P441876	
		Chlorfenapyr	0.31	U	ng/L	P441876	
		PBB-153**	6.1	U	ng/L	P441876	
		Chlorpyrifos Ethyl	0.31	U	ng/L	P441876	
		Pentabromotoluene**	3.1	U	ng/L	P441876	
		Chlorpyrifos Methyl	0.10	U	ng/L	P441876	
		Tris(2-chloroethyl) phosphate (TCEP)**	56	U	ng/L	P441876	
		Coumaphos	1.1	U	ng/L	P441876	
		Tris(1-chloro-2-propyl) phosphate (TCPP)**	26	U	ng/L	P441876	
		Cyanazine	5.1	U	ng/L	P441876	
		Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)**	2.6	U	ng/L	P441876	
		Cyprodinil	0.20	U	ng/L	P441876	
		Tetradecachloro-m-terphenyl**	7.7	U	ng/L	P441876	
		Demeton	3.6	U	ng/L	P441876	
		2-(2H-benzotriazol-2-yl)-4,6-ditertpentyl phenol (UV-328)**	61	U	ng/L	P441876	RPD
		Diazinon	0.13	U	ng/L	P441876	
		Difenoconazole	0.61	U	ng/L	P441876	
		Dimethenamid	0.10	U	ng/L	P441876	
		Dimethomorph	0.31	U	ng/L	P441876	
		Disulfoton	0.61	U	ng/L	P441876	
		Dithiopyr	1.0	U	ng/L	P441876	
		EPTC	0.51	U	ng/L	P441876	
		Ethion	0.31	U	ng/L	P441876	
		Ethoprop	0.13	U	ng/L	P441876	
		Etridiazole	0.10	U	ng/L	P441876	
		Fenamiphos	0.46	U	ng/L	P441876	
		Fenbuconazole	0.51	U	ng/L	P441876	
		Fipronil	0.20	U	ng/L	P441876	
		Fipronil Desulfinyl**	0.10	U	ng/L	P441876	
		Fipronil Sulfide	0.10	U	ng/L	P441876	
		Fipronil Sulfone	0.10	U	ng/L	P441876	
		Fluazifop-P-butyl	0.10	U	ng/L	P441876	
		Fludioxonil	0.10	U	ng/L	P441876	
		Flumioxazin	3.1	U	ng/L	P441876	
		Flutolanil	0.10	U	ng/L	P441876	
		Fluxapyroxad	0.26	U	ng/L	P441876	
		Fonofos	0.15	U	ng/L	P441876	
		Hexazinone	0.51	U	ng/L	P441876	
		Imazalil	0.67	U	ng/L	P441876	
		Iprodione	0.51	U	ng/L	P441876	MS, RPD
		Loratadine**	0.31	U	ng/L	P441876	
		Malathion	0.36	U	ng/L	P441876	MS, RPD

Field ID: G4SE0167 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2469170	EPA 8270E	Metalaxyl	3.0		ng/L	P441876	
		Metolachlor	0.77	U	ng/L	P441876	
		Metribuzin	0.41	U	ng/L	P441876	
		Mevinphos	1.0	U	ng/L	P441876	
		Molinate	0.26	U	ng/L	P441876	
		Myclobutanil	0.36	U	ng/L	P441876	
		Naled	2.6	U	ng/L	P441876	
		Napropamide	0.72	U	ng/L	P441876	
		Norflurazon	360		ng/L	P441876	
		Oxadiazon	0.36	U	ng/L	P441876	
		Oxyfluorfen	0.20	U	ng/L	P441876	
		Parathion Ethyl	0.15	U	ng/L	P441876	
		Parathion Methyl	0.20	U	ng/L	P441876	
		Pendimethalin	1.7	U	ng/L	P441876	
		Phenytoin**	5.4	U	ng/L	P441876	
		Phorate	0.26	U	ng/L	P441876	
		Prodiamine	0.20	U	ng/L	P441876	
		Prometon	3.1	U	ng/L	P441876	
		Prometryn	0.36	U	ng/L	P441876	
		Pronamide	0.10	U	ng/L	P441876	
		Propanil	0.10	U	ng/L	P441876	
		Propargite	0.82	U	ng/L	P441876	
		Propiconazole	0.61	U	ng/L	P441876	
		Pyraflufen Ethyl	0.31	U	ng/L	P441876	
		Pyridaben	1.4	U	ng/L	P441876	
		Pyriproxyfen	0.26	U	ng/L	P441876	
		Simazine	0.26	U	ng/L	P441876	
		Stirophos	0.41	U	ng/L	P441876	
		Sulfentrazone	1.4	U	ng/L	P441876	MS
		Tebuconazole	1.4	U	ng/L	P441876	
		Terbufos	0.20	U	ng/L	P441876	
		Terbuthylazine	0.20	U	ng/L	P441876	
		Thiobencarb	0.51	U	ng/L	P441876	MS, RPD
		Triadimefon	0.15	U	ng/L	P441876	

Ref. Method and Comment:
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 351.2 Rev. 2.0: The PQL was elevated because of high nitrate concentration in the sample.
EPA 8270E: MS accuracy for atrazine not assessed due to high content of this parameter in the sample spiked.

Quality Assurance Report
Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P441496

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P441494

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P441577

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Strontium	2.0	U	ug/L
Tin	3.0	U	ug/L
Titanium	0.75	U	ug/L
Vanadium	2.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P441577

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Barium	0.20	U	ug/L
Beryllium	0.010	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Cobalt	0.020	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Manganese	0.10	U	ug/L
Molybdenum	0.15	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P442055

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: P442059

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P441751

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P441575

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P442340

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P441675

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P442234

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P441684

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P441687

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

Reference Method: EPA 8270E
Batch ID: P441759

Component	Result	Code	Units
Aldrin	0.65	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Beta-BHC	0.10	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P441759

Component	Result	Code	Units
Beta-Cyfluthrin	1.2	U	ng/L
Bifenthrin	0.50	U	ng/L
Chlorothalonil	3.6	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cypermethrin	1.5	U	ng/L
Dacthal	0.15	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDT-p,p'	0.80	U	ng/L
Delta-BHC	0.40	U	ng/L
Deltamethrin	1.2	U	ng/L
Dichlobenil	0.25	U	ng/L
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.90	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.90	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Ketone	0.40	U	ng/L
Esfenvalerate	0.75	U	ng/L
Ethalfluralin	0.15	U	ng/L
Fenpropathrin	0.25	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Kepone	14	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoxychlor	0.30	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.35	U	ng/L
Oxychlordane	0.30	U	ng/L
PCB-1016	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1242	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1254	2.0	U	ng/L
PCB-1260	2.0	U	ng/L
Permethrin	1.6	U	ng/L
Phenothrin	0.90	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Prallethrin	2.0	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tetramethrin	0.75	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Trifluralin	0.20	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P441876

Component	Result	Code	Units
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	60	U	ng/L
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	12	U	ng/L
Acetochlor	0.20	U	ng/L
Alachlor	0.40	U	ng/L
Ametryn	1.1	U	ng/L
Atrazine	0.20	U	ng/L
Atrazine Desethyl	1.3	U	ng/L
Avobenzone	100	U	ng/L
Azinphos Methyl	3.0	U	ng/L
Azoxystrobin	0.40	U	ng/L
Bromacil	0.60	U	ng/L
Butylate	0.45	U	ng/L
Caffeine	7.5	U	ng/L
Carbophenothion	0.50	U	ng/L
Carfentrazone Ethyl	0.15	U	ng/L
Chlorfenapyr	0.30	U	ng/L
Chlorpyrifos Ethyl	0.30	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
Coumaphos	1.0	U	ng/L
Cyanazine	5.0	U	ng/L
Cyprodinil	0.20	U	ng/L
Dechlorane 602	5.0	U	ng/L
Dechlorane 603	4.0	U	ng/L
Dechlorane Plus	30	U	ng/L
Demeton	3.5	U	ng/L
Diazinon	0.12	U	ng/L
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethomorph	0.30	U	ng/L
Disulfoton	0.60	U	ng/L
Dithiopyr	1.0	U	ng/L
EPTC	0.50	U	ng/L
Ethion	0.30	U	ng/L
Ethoprop	0.12	U	ng/L
Etridiazole	0.10	U	ng/L
Fenamiphos	0.45	U	ng/L
Fenbuconazole	0.50	U	ng/L
Fipronil	0.20	U	ng/L
Fipronil Desulfinyl	0.10	U	ng/L
Fipronil Sulfide	0.10	U	ng/L
Fipronil Sulfone	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.10	U	ng/L
Flumioxazin	3.0	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.25	U	ng/L
Fonofos	0.15	U	ng/L
Hexabromobenzene	6.0	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.65	U	ng/L
Iprodione	0.50	U	ng/L
Loratadine	0.30	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P441876

Component	Result	Code	Units
Malathion	0.35	U	ng/L
Metalaxyl	0.50	U	ng/L
Metolachlor	0.75	U	ng/L
Metribuzin	0.40	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.25	U	ng/L
Myclobutanil	0.35	U	ng/L
Naled	2.5	U	ng/L
Napropamide	0.70	U	ng/L
Norflurazon	1.0	U	ng/L
Octinoxate	150	U	ng/L
Oxadiazon	0.35	U	ng/L
Oxybenzone	10	U	ng/L
Oxyfluorfen	0.20	U	ng/L
Parathion Ethyl	0.15	U	ng/L
Parathion Methyl	0.20	U	ng/L
PBB-153	6.0	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-99	5.0	U	ng/L
Pendimethalin	1.7	U	ng/L
Pentabromotoluene	3.0	U	ng/L
Phenytoin	5.3	U	ng/L
Phorate	0.25	U	ng/L
Prodiamine	0.20	U	ng/L
Prometon	3.0	U	ng/L
Prometryn	0.35	U	ng/L
Pronamide	0.10	U	ng/L
Propanil	0.10	U	ng/L
Propargite	0.80	U	ng/L
Propiconazole	0.60	U	ng/L
Pyraflufen Ethyl	0.30	U	ng/L
Pyridaben	1.4	U	ng/L
Pyriproxyfen	0.25	U	ng/L
Simazine	0.25	U	ng/L
Stirophos	0.40	U	ng/L
Sulfentrazone	1.4	U	ng/L
Tebuconazole	1.4	U	ng/L
Terbufos	0.20	U	ng/L
Terbuthylazine	0.20	U	ng/L
Tetradecachloro-m-terphenyl	7.5	U	ng/L
Thiobencarb	0.50	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Triadimefon	0.15	U	ng/L
Tris(1-chloro-2-propyl) phosphate (TCPP)	25	U	ng/L
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	2.5	U	ng/L
Tris(2-chloroethyl) phosphate (TCEP)	55	U	ng/L

Reference Method: EPA 8276
Batch ID: P441759

Component	Result	Code	Units
Chlordane	2.0	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8276
Batch ID: P441759

Component	Result	Code	Units
Toxaphene	15	U	ng/L

Reference Method: EPA 8321B
Batch ID: P441446

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
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: EPA 8321B
Batch ID: P441467

Component	Result	Code	Units
3-Hydroxycarbofuran	0.0020	U	ug/L
Aldicarb	0.020	U	ug/L
Aldicarb Sulfone	0.0020	U	ug/L
Aldicarb Sulfoxide	0.0020	U	ug/L
Carbaryl	0.0020	U	ug/L
Carbofuran	0.0020	U	ug/L
Methiocarb	0.0020	U	ug/L
Methomyl	0.0020	U	ug/L
Oxamyl	0.0020	U	ug/L
Propoxur	0.0020	U	ug/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8321B
Batch ID: P441572

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: SM 2320 B-2011
Batch ID: P441938

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

Reference Method: SM 2540 C-2015
Batch ID: P441929

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P441901

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P441941

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2014
Batch ID: P441610

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: P441496

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: P441494

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P441577

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	101		P	80 - 120
Iron	105		P	80 - 120
Magnesium	99.9		P	80 - 120
Potassium	99.2		P	80 - 120
Sodium	101		P	80 - 120
Strontium	95.1		P	80 - 120
Tin	96.2		P	80 - 120
Titanium	99.7		P	80 - 120
Vanadium	95.9		P	80 - 120
Zinc	93.8		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P441577

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	101		P	85 - 115
Antimony	98.8		P	85 - 115
Arsenic	102		P	85 - 115
Barium	100		P	85 - 115
Beryllium	90.6		P	85 - 115
Boron	105		P	85 - 115
Cadmium	99.5		P	85 - 115
Chromium	100		P	85 - 115
Cobalt	100		P	85 - 115
Copper	100		P	85 - 115
Lead	94.9		P	85 - 115
Manganese	99.5		P	85 - 115
Molybdenum	98.8		P	85 - 115
Nickel	100		P	85 - 115
Selenium	100		P	85 - 115
Silver	105		P	85 - 115
Thallium	98.4		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P442055

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P442059

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P441751

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P441575

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P442340

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P441675

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P442234

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P441684

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P441687

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

Reference Method: EPA 8270E
Batch ID: P441759

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	49.1		P	30 - 96.0
Alpha-BHC	88.9		P	70 - 109
Alpha-Chlordane	79.6		P	45 - 107
Beta-BHC	84.9		P	64 - 138

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P441759

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Beta-Cyfluthrin	65.4		P	17 - 141
Bifenthrin	52.9		P	10 - 113
Chlorothalonil	64.5		P	26 - 180
Cis-Nonachlor	72.0		P	37 - 102
Cypermethrin	60.0		P	20 - 133
Dacthal	95.8		P	69 - 114
DDD-p,p'	59.8		P	42 - 105
DDE-p,p'	60.1		P	42 - 106
DDT-p,p'	77.3		P	42 - 107
Delta-BHC	90.2		P	67 - 144
Deltamethrin	83.0		P	15 - 149
Dichlobenil	81.5		P	46 - 117
Dicofol	70.3		P	34 - 114
Dieldrin	61.0		P	50 - 108
Endosulfan I	64.3		P	55 - 104
Endosulfan II	65.1		P	51 - 111
Endosulfan Sulfate	88.5		P	56 - 121
Endrin	69.8		P	10 - 106
Endrin Aldehyde	70.9		P	34 - 114
Endrin Ketone	74.2		P	63 - 177
Esfenvalerate	71.4		P	29 - 143
Ethalfluralin	71.3		P	46 - 96.0
Fenpropathrin	78.3		P	28 - 115
Gamma-BHC	94.7		P	65 - 121
Gamma-Chlordane	77.5		P	39 - 103
Heptachlor	68.3		P	39 - 94.0
Heptachlor Epoxide	95.0		P	54 - 104
Hexachlorobenzene	65.1		P	36 - 100
Kepone	70.9		P	10 - 225
Lambda-Cyhalothrin	27.3		P	10 - 135
Methoprene	42.3		P	10 - 109
Methoxychlor	77.8		P	52 - 112
MGK-264	83.1		P	44 - 117
Mirex	54.7		P	20 - 90.0
Oxychlordane	79.2		P	44 - 102
PCB-1016	72.7		P	45 - 107
PCB-1260	87.4		P	40 - 112
Permethrin	66.3		P	18 - 135
Phenothrin	41.2		P	10 - 102
Piperonyl Butoxide	86.4		P	28 - 156
Prallethrin	56.7		P	28 - 113
Tau-Fluvalinate	53.5		P	10 - 123
Tetramethrin	82.7		P	18 - 158
Trans-Nonachlor	74.3		P	39 - 104
Triclosan Methyl	89.4		P	54 - 108
Trifluralin	72.2		P	46 - 97.0

Reference Method: EPA 8270E
Batch ID: P441876

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	54.0		P	50 - 150

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P441876

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	97.1		P	37 - 154
Acetochlor	104		P	64 - 124
Alachlor	90.0		P	61 - 118
Ametryn	97.6		P	47 - 158
Atrazine	93.9		P	68 - 121
Atrazine Desethyl	81.2		P	30 - 119
Avobenzone	124		P	48 - 193
Azinphos Methyl	129		P	30 - 194
Azoxystrobin	93.2		P	58 - 154
Bromacil	108		P	47 - 126
Butylate	58.4		P	31 - 83.0
Caffeine	98.9		P	10 - 180
Carbophenothion	80.5		P	59 - 133
Carfentrazone Ethyl	90.3		P	59 - 147
Chlorfenapyr	78.4		P	52 - 118
Chlorpyrifos Ethyl	102		P	59 - 119
Chlorpyrifos Methyl	103		P	65 - 123
Coumaphos	105		P	11 - 223
Cyanazine	103		P	63 - 250
Cyprodinil	86.5		P	52 - 143
Dechlorane 602	95.4		P	23 - 142
Dechlorane 603	107		P	51 - 171
Dechlorane Plus	94.8		P	46 - 161
Demeton	87.3		P	42 - 119
Diazinon	104		P	67 - 132
Difenoconazole	74.2		P	12 - 204
Dimethenamid	102		P	53 - 113
Dimethomorph	95.4		P	13 - 238
Disulfoton	92.0		P	56 - 126
Dithiopyr	95.4		P	58 - 127
EPTC	55.2		P	31 - 78.0
Ethion	86.9		P	24 - 127
Ethoprop	83.4		P	60 - 118
Etridiazole	70.1		P	32 - 91.0
Fenamiphos	97.9		P	54 - 129
Fenbuconazole	64.1		P	31 - 162
Fipronil	101		P	56 - 131
Fipronil Desulfinyl	83.4		P	58 - 132
Fipronil Sulfide	89.7		P	51 - 123
Fipronil Sulfone	86.9		P	50 - 125
Fluazifop-P-butyl	79.0		P	52 - 132
Fludioxonil	79.1		P	52 - 129
Flumioxazin	168		P	34 - 250
Flutolanil	85.5		P	45 - 128
Fluxapyroxad	107		P	31 - 150
Fonofos	83.0		P	60 - 116
Hexabromobenzene	93.8		P	52 - 165
Hexazinone	97.3		P	59 - 120
Imazalil	80.1		P	39 - 134
Iprodione	104		P	39 - 243
Loratadine	80.5		P	10 - 240
Malathion	123		P	53 - 145

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P441876

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Metalaxyl	90.6		P	59 - 120
Metolachlor	84.3		P	64 - 122
Metribuzin	95.8		P	33 - 128
Mevinphos	111		P	48 - 119
Molinate	66.9		P	42 - 89.0
Myclobutanil	103		P	54 - 129
Naled	79.3		P	10 - 138
Napropamide	73.6		P	40 - 122
Norflurazon	79.5		P	49 - 132
Octinoxate	98.1		P	29 - 176
Oxadiazon	78.0		P	50 - 115
Oxybenzone	96.3		P	45 - 145
Oxyfluorfen	107		P	62 - 149
Parathion Ethyl	92.8		P	68 - 119
Parathion Methyl	98.8		P	68 - 147
PBB-153	97.7		P	42 - 179
PBDE-47	103		P	44 - 141
PBDE-99	102		P	36 - 141
Pendimethalin	118		P	59 - 158
Pentabromotoluene	84.1		P	58 - 148
Phenytoin	94.8		P	10 - 151
Phorate	75.5		P	44 - 124
Prodiamine	118		P	10 - 136
Prometon	112		P	45 - 131
Prometryn	110		P	52 - 140
Pronamide	109		P	70 - 129
Propanil	86.2		P	54 - 144
Propargite	81.5		P	10 - 191
Propiconazole	89.2		P	49 - 128
Pyraflufen Ethyl	84.5		P	46 - 141
Pyridaben	110		P	29 - 198
Pyriproxyfen	103		P	33 - 221
Simazine	100		P	62 - 119
Stirophos	88.1		P	13 - 144
Sulfentrazone	102		P	12 - 152
Tebuconazole	85.2		P	10 - 135
Terbufos	85.3		P	67 - 136
Terbuthylazine	91.4		P	66 - 113
Tetradecachloro-m-terphenyl	80.5		P	30 - 235
Thiobencarb	104		P	51 - 125
Tri-o-cresyl Phosphate	107		P	50 - 150
Triadimefon	73.7		P	57 - 118
Tris(1-chloro-2-propyl) phosphate (TCPP)	98.4		P	60 - 160
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	107		P	66 - 141
Tris(2-chloroethyl) phosphate (TCEP)	108		P	59 - 166

Reference Method: EPA 8276
Batch ID: P441759

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	72.3		P	52 - 117
Toxaphene	70.5		P	44 - 125

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P441446

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	106		P	40 - 150
2,4,5-T	128		P	40 - 150
Acetaminophen	88.0		P	30 - 150
Acetamiprid	75.8		P	40 - 150
Afidopyropen	55.6		P	30 - 150
Bentazon	95.7		P	30 - 150
Benzovindiflupyr	83.9		P	40 - 150
Carbamazepine	87.9		P	40 - 150
Clothianidin	88.6		P	40 - 150
Dinotefuran	99.0		P	40 - 150
Diuron	82.3		P	40 - 150
Fenuron	97.5		P	40 - 150
Fluridone	96.5		P	40 - 150
Hydrocodone	89.3		P	40 - 150
Ibuprofen	99.5		P	40 - 150
Imazapyr	101		P	40 - 150
Imidacloprid	86.6		P	40 - 150
Linuron	77.5		P	40 - 150
Mandestrobin	88.7		P	40 - 150
MCPP	101		P	40 - 150
Naproxen	77.7		P	40 - 150
Primidone	79.8		P	40 - 150
Pyraclostrobin	78.9		P	40 - 150
Silvex	93.1		P	40 - 150
Thiamethoxam	86.2		P	40 - 150
Tolfenpyrad	49.8		P	30 - 150
Triclopyr	124		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P441467

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	77.1		P	40 - 150
Aldicarb	61.3		P	30 - 150
Aldicarb Sulfone	91.5		P	40 - 150
Aldicarb Sulfoxide	120		P	40 - 150
Carbaryl	80.3		P	40 - 150
Carbofuran	81.1		P	40 - 150
Methiocarb	69.0		P	40 - 150
Methomyl	89.3		P	40 - 150
Oxamyl	97.5		P	40 - 150
Propoxur	79.1		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P441572

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	124		P	40 - 150
AMPA	103		P	40 - 160
Endothall	87.1		P	40 - 160
Glufosinate	90.3		P	40 - 160
Glyphosate	99.3		P	40 - 160

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P441572

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	98.4		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P441938

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

Reference Method: SM 2540 C-2015
Batch ID: P441929

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	102		P	85 - 115

Reference Method: SM 2540 D-2015
Batch ID: P441901

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

Reference Method: SM 4500-F- C-2011
Batch ID: P441941

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

Reference Method: SM 5310 B-2014
Batch ID: P441610

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.6		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P441577

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2469171	Calcium	99.2		P	80 - 120
2469171	Iron	102	103	P/P	80 - 120
2469171	Magnesium	97.3		P	80 - 120
2469171	Potassium	96.5		P	80 - 120
2469171	Sodium	98.1		P	80 - 120
2469171	Strontium	93.6	92.4	P/P	80 - 120
2469171	Tin	92.1	92.6	P/P	80 - 120
2469171	Titanium	99.2	99.6	P/P	80 - 120
2469171	Vanadium	95.4	95.4	P/P	80 - 120
2469171	Zinc	93.0	93.2	P/P	80 - 120
2469316	Calcium	98.3		P	80 - 120
2469316	Iron	102		P	80 - 120
2469316	Magnesium	105		P	80 - 120
2469316	Potassium	96.3		P	80 - 120
2469316	Sodium	97.7		P	80 - 120
2469316	Strontium	92.7		P	80 - 120
2469316	Tin	93.2		P	80 - 120
2469316	Titanium	97.3		P	80 - 120
2469316	Vanadium	95.6		P	80 - 120
2469316	Zinc	92.2		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P441577

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2469171	Aluminum	100	100	P/P	80 - 120
2469171	Antimony	98.4	100	P/P	80 - 120
2469171	Arsenic	101	102	P/P	80 - 120
2469171	Barium	100	99.3	P/P	80 - 120
2469171	Beryllium	92.5	93.6	P/P	80 - 120
2469171	Boron	105	107	P/P	80 - 120
2469171	Cadmium	101	100	P/P	80 - 120
2469171	Chromium	99.4	99.4	P/P	80 - 120
2469171	Cobalt	98.5	98.6	P/P	80 - 120
2469171	Copper	100	103	P/P	80 - 120
2469171	Lead	95.8	95.5	P/P	80 - 120
2469171	Manganese	97.8	99.0	P/P	80 - 120
2469171	Molybdenum	99.6	100	P/P	80 - 120
2469171	Nickel	99.1	101	P/P	80 - 120
2469171	Selenium	97.9	98.2	P/P	80 - 120
2469171	Silver	101	102	P/P	80 - 120
2469171	Thallium	102	101	P/P	80 - 120
2469316	Aluminum	86.0		P	80 - 120
2469316	Antimony	98.2		P	80 - 120
2469316	Arsenic	99.2		P	80 - 120
2469316	Barium	97.3		P	80 - 120
2469316	Beryllium	92.9		P	80 - 120
2469316	Boron	110		P	80 - 120
2469316	Cadmium	101		P	80 - 120
2469316	Chromium	104		P	80 - 120
2469316	Cobalt	100		P	80 - 120
2469316	Copper	102		P	80 - 120

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P441577

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2469316	Lead	96.3		P	80 - 120
2469316	Manganese	97.7		P	80 - 120
2469316	Molybdenum	98.2		P	80 - 120
2469316	Nickel	102		P	80 - 120
2469316	Selenium	91.5		P	80 - 120
2469316	Silver	104		P	80 - 120
2469316	Thallium	102		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P442055

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2469021	Chloride	99.1		P	90 - 110
2469158	Chloride	100		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P442059

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2469021	Sulfate	99.0		P	90 - 110
2469158	Sulfate	98.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P441751

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2469155	Ammonia-N	95.8	96.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P441575

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2469089	Kjeldahl Nitrogen	103	110	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P442340

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2473023	Kjeldahl Nitrogen	97.2	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P441675

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2467061	NO2NO3-N	90.0	95.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P442234

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2468914	NO2NO3-N	97.0	98.5	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P441684

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2468953	Total-P	106	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P441687

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2469161	Total-P	107	105	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P441759

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2469168	Aldrin	71.5	73.9	P/P	24 - 81.0
2469168	Alpha-BHC	92.6	89.3	P/P	65 - 110
2469168	Alpha-Chlordane	101	110	P/P	43 - 119
2469168	Beta-BHC	93.3	91.2	P/P	54 - 165
2469168	Beta-Cyfluthrin	93.4	106	P/P	27 - 165
2469168	Bifenthrin	118	116	F/P	17 - 117
2469168	Chlorothalonil	139	112	P/P	10 - 255
2469168	Cis-Nonachlor	97.8	83.8	P/P	34 - 98.0
2469168	Cypermethrin	80.9	90.3	P/P	25 - 143
2469168	Dacthal	115	123	P/P	55 - 139
2469168	DDD-p,p'	70.4	73.1	P/P	30 - 109
2469168	DDE-p,p'	70.0	75.5	P/P	35 - 106
2469168	DDT-p,p'	79.3	83.1	P/P	41 - 101
2469168	Delta-BHC	114	118	P/P	58 - 165
2469168	Deltamethrin	143	96.4	P/P	10 - 194
2469168	Dichlobenil	55.8	63.8	P/P	22 - 114
2469168	Dicofol	80.2	82.3	P/P	17 - 133
2469168	Dieldrin	71.5	75.3	P/P	45 - 129
2469168	Endosulfan I	69.2	74.2	P/P	49 - 104
2469168	Endosulfan II	71.1	74.3	P/P	37 - 117
2469168	Endosulfan Sulfate	80.4	84.3	P/P	38 - 128
2469168	Endrin	73.2	80.7	P/P	35 - 116
2469168	Endrin Aldehyde	43.2	46.8	P/P	19 - 108
2469168	Endrin Ketone	72.3	82.5	P/P	44 - 134
2469168	Esfenvalerate	129	130	P/P	27 - 176
2469168	Ethalfluralin	76.8	82.8	P/P	49 - 100
2469168	Fenpropathrin	113	113	P/P	34 - 117
2469168	Gamma-BHC	104	95.1	P/P	59 - 129
2469168	Gamma-Chlordane	104	104	P/P	33 - 107
2469168	Heptachlor	97.2	82.1	F/P	37 - 94.0
2469168	Heptachlor Epoxide	103	116	P/P	38 - 118
2469168	Hexachlorobenzene	77.5	80.8	P/P	35 - 97.0
2469168	Kepone	65.1	77.9	P/P	10 - 221
2469168	Lambda-Cyhalothrin	51.2	57.0	P/P	23 - 190
2469168	Methoprene	79.6	81.7	P/P	21 - 109
2469168	Methoxychlor	91.2	94.7	P/P	46 - 118
2469168	MGK-264	102	106	P/P	39 - 122
2469168	Mirex	79.5	80.0	P/P	25 - 90.0
2469168	Oxychlordane	132	130	F/F	42 - 100
2469168	Permethrin	89.1	94.1	P/P	33 - 181

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P441759

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2469168	Phenothrin	114	125	P/F	12 - 125
2469168	Piperonyl Butoxide	79.9	84.8	P/P	10 - 178
2469168	Prallethrin	61.7	63.3	P/P	24 - 122
2469168	Tau-Fluvalinate	102	112	P/P	13 - 151
2469168	Tetramethrin	126	126	P/P	16 - 172
2469168	Trans-Nonachlor	78.3	84.6	P/P	39 - 100
2469168	Triclosan Methyl	104	110	P/P	43 - 110
2469168	Trifluralin	79.7	73.9	P/P	45 - 94.0
2469632	PCB-1016	82.1	76.8	P/P	45 - 107
2469632	PCB-1260	95.9	94.1	P/P	40 - 112

Reference Method: EPA 8270E
Batch ID: P441876

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2469595	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	51.5	90.5	P/P	50 - 150
2469595	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	90.6	100	P/P	29 - 155
2469595	Acetochlor	107	105	P/P	60 - 124
2469595	Alachlor	80.3	92.3	P/P	54 - 122
2469595	Ametryn	125	118	P/P	51 - 208
2469595	Atrazine Desethyl	101	100	P/P	13 - 124
2469595	Avobenzone	114	117	P/P	35 - 187
2469595	Azinphos Methyl	105	103	P/P	43 - 276
2469595	Azoxystrobin	99.8	105	P/P	52 - 300
2469595	Bromacil	111	104	P/P	44 - 134
2469595	Butylate	62.1	62.6	P/P	23 - 82.0
2469595	Caffeine	104	111	P/P	10 - 277
2469595	Carbophenothion	73.4	83.4	P/P	47 - 135
2469595	Carfentrazone Ethyl	74.4	73.3	P/P	46 - 147
2469595	Chlorfenapyr	74.4	84.6	P/P	43 - 114
2469595	Chlorpyrifos Ethyl	115	110	P/P	47 - 124
2469595	Chlorpyrifos Methyl	123	108	P/P	60 - 135
2469595	Coumaphos	97.4	121	P/P	10 - 222
2469595	Cyanazine	100	111	P/P	10 - 257
2469595	Cyprodinil	95.9	113	P/P	42 - 148
2469595	Dechlorane 602	64.4	81.5	P/P	14 - 133
2469595	Dechlorane 603	84.4	93.6	P/P	18 - 191
2469595	Dechlorane Plus	75.9	80.4	P/P	23 - 154
2469595	Demeton	119	107	P/P	41 - 137
2469595	Diazinon	134	120	P/P	64 - 139
2469595	Difenoconazole	82.2	88.6	P/P	46 - 254
2469595	Dimethenamid	110	107	P/P	47 - 117
2469595	Dimethomorph	115	128	P/P	14 - 255
2469595	Disulfoton	123	113	P/P	52 - 130
2469595	Dithiopyr	107	102	P/P	40 - 121
2469595	EPTC	58.6	58.9	P/P	19 - 78.0
2469595	Ethion	72.4	87.7	P/P	12 - 124
2469595	Ethoprop	95.3	92.4	P/P	68 - 144
2469595	Etridiazole	71.6	62.0	P/P	26 - 96.0
2469595	Fenamiphos	75.3	92.0	P/P	41 - 129
2469595	Fenbuconazole	58.4	74.5	P/P	26 - 169
2469595	Fipronil	112	104	P/P	46 - 145

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P441876

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2469595	Fipronil Desulfinyl	97.5	83.2	P/P	47 - 136
2469595	Fipronil Sulfide	99.8	93.6	P/P	41 - 127
2469595	Fipronil Sulfone	77.6	90.4	P/P	35 - 133
2469595	Fluazifop-P-butyl	72.7	84.3	P/P	46 - 131
2469595	Fludioxonil	73.1	81.4	P/P	51 - 124
2469595	Flumioxazin	132	143	P/P	10 - 289
2469595	Flutolanil	60.4	74.6	P/P	34 - 130
2469595	Fluxapyroxad	104	123	P/P	10 - 197
2469595	Fonofos	91.1	96.6	P/P	42 - 131
2469595	Hexabromobenzene	107	99.8	P/P	47 - 178
2469595	Hexazinone	110	112	P/P	64 - 125
2469595	Imazalil	110	85.7	P/P	37 - 252
2469595	Iprodione	48.9	11.7	P/F	34 - 265
2469595	Loratadine	81.4	97.4	P/P	20 - 231
2469595	Malathion	26.3	76.4	F/P	34 - 164
2469595	Metalaxyl	98.1	102	P/P	49 - 125
2469595	Metolachlor	69.6	88.3	P/P	54 - 125
2469595	Metribuzin	108	105	P/P	51 - 139
2469595	Mevinphos	115	90.6	P/P	46 - 130
2469595	Molinate	76.7	78.3	P/P	39 - 93.0
2469595	Myclobutanil	113	110	P/P	50 - 130
2469595	Naled	83.5	59.7	P/P	10 - 150
2469595	Napropamide	62.1	77.7	P/P	10 - 109
2469595	Norflurazon	67.1	82.6	P/P	36 - 134
2469595	Octinoxate	89.3	89.7	P/P	18 - 170
2469595	Oxadiazon	72.3	82.4	P/P	43 - 112
2469595	Oxybenzone	87.3	86.6	P/P	33 - 154
2469595	Oxyfluorfen	125	118	P/P	62 - 154
2469595	Parathion Ethyl	101	106	P/P	65 - 120
2469595	Parathion Methyl	115	117	P/P	77 - 185
2469595	PBB-153	91.2	97.1	P/P	23 - 193
2469595	PBDE-47	86.5	92.3	P/P	31 - 139
2469595	PBDE-99	82.2	90.2	P/P	24 - 138
2469595	Pendimethalin	101	127	P/P	50 - 146
2469595	Pentabromotoluene	79.9	76.9	P/P	54 - 152
2469595	Phenytoin	30.1	35.6	P/P	10 - 157
2469595	Phorate	110	105	P/P	54 - 161
2469595	Prodiamine	107	113	P/P	29 - 160
2469595	Prometon	125	130	P/P	38 - 145
2469595	Prometryn	104	130	P/P	32 - 151
2469595	Pronamide	116	120	P/P	61 - 140
2469595	Propanil	77.5	88.7	P/P	50 - 147
2469595	Propargite	79.6	79.0	P/P	10 - 190
2469595	Propiconazole	95.4	112	P/P	30 - 146
2469595	Pyraflufen Ethyl	74.7	70.0	P/P	30 - 147
2469595	Pyridaben	106	133	P/P	15 - 195
2469595	Pyriproxyfen	103	118	P/P	31 - 218
2469595	Simazine	108	114	P/P	45 - 139
2469595	Stirophos	56.6	69.0	P/P	10 - 134
2469595	Sulfentrazone	30.3	31.4	F/F	53 - 186
2469595	Tebuconazole	80.3	97.9	P/P	10 - 133
2469595	Terbufos	102	106	P/P	65 - 151

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P441876

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2469595	Terbuthylazine	91.0	97.8	P/P	62 - 117
2469595	Tetradecachloro-m-terphenyl	85.7	77.7	P/P	10 - 260
2469595	Thiobencarb	39.6	104	F/P	48 - 122
2469595	Tri-o-cresyl Phosphate	95.9	96.8	P/P	32 - 151
2469595	Triadimefon	91.5	77.8	P/P	46 - 124
2469595	Tris(1-chloro-2-propyl) phosphate (TCPP)	98.8	94.4	P/P	51 - 154
2469595	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	97.5	99.7	P/P	59 - 147
2469595	Tris(2-chloroethyl) phosphate (TCEP)	97.1	94.5	P/P	65 - 156

Reference Method: EPA 8276
Batch ID: P441759

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2469632	Chlordane	78.2	78.3	P/P	43 - 123
2469632	Toxaphene	72.1	83.1	P/P	27 - 156

Reference Method: EPA 8321B
Batch ID: P441446

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2469056	2,4-D	111	95.4	P/P	40 - 150
2469056	2,4,5-T	122	103	P/P	40 - 150
2469056	Acetaminophen	104	97.5	P/P	30 - 150
2469056	Acetamiprid	82.0	80.1	P/P	40 - 150
2469056	Afidopyropen	57.8	75.2	P/P	30 - 150
2469056	Bentazon	94.8	90.7	P/P	30 - 150
2469056	Benzovindiflupyr	85.2	78.3	P/P	40 - 150
2469056	Carbamazepine	79.9	72.7	P/P	40 - 150
2469056	Clothianidin	97.1	85.9	P/P	40 - 150
2469056	Dinotefuran	107	98.7	P/P	40 - 150
2469056	Diuron	78.7	73.1	P/P	40 - 150
2469056	Fenuron	95.6	91.4	P/P	40 - 150
2469056	Fluridone	85.6	81.9	P/P	40 - 150
2469056	Hydrocodone	85.0	78.5	P/P	40 - 150
2469056	Ibuprofen	53.1	59.6	P/P	40 - 150
2469056	Imazapyr	98.1	96.8	P/P	40 - 150
2469056	Imidacloprid	109	98.9	P/P	40 - 150
2469056	Linuron	83.4	73.3	P/P	40 - 150
2469056	Mandestrobin	91.2	84.6	P/P	40 - 150
2469056	MCPP	103	95.6	P/P	40 - 150
2469056	Naproxen	94.7	78.8	P/P	40 - 150
2469056	Primidone	89.8	78.0	P/P	40 - 150
2469056	Pyraclostrobin	79.8	72.8	P/P	40 - 150
2469056	Silvex	94.8	90.4	P/P	40 - 150
2469056	Thiamethoxam	88.5	81.5	P/P	40 - 150
2469056	Tolfenpyrad	59.2	48.5	P/P	30 - 150
2469056	Triclopyr	109	112	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P441467

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

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P441467

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2468562	3-Hydroxycarbofuran	78.8	72.9	P/P	40 - 150
2468562	Aldicarb	69.5	65.0	P/P	30 - 150
2468562	Aldicarb Sulfone	62.4	59.2	P/P	40 - 150
2468562	Aldicarb Sulfoxide	35.2	32.0	F/F	40 - 150
2468562	Carbaryl	62.1	65.6	P/P	40 - 150
2468562	Carbofuran	65.7	65.2	P/P	40 - 150
2468562	Methiocarb	64.9	64.3	P/P	40 - 150
2468562	Methomyl	73.5	71.9	P/P	40 - 150
2468562	Oxamyl	44.8	44.2	P/P	40 - 150
2468562	Propoxur	60.3	59.5	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P441572

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2469167	Acesulfame K	122	124	P/P	40 - 150
2469167	AMPA	101	103	P/P	40 - 160
2469167	Endothall	93.4	94.0	P/P	40 - 160
2469167	Glufosinate	88.5	88.6	P/P	40 - 160
2469167	Glyphosate	97.9	95.9	P/P	40 - 160
2469167	Sucralose	102	106	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P441941

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2469160	Fluoride	101	101	P/P	94 - 106

Reference Method: SM 5310 B-2014
Batch ID: P441610

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2469089	Organic Carbon	100	101	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P441496

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2469156	Color (true)	7.20	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P441494

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2469154	Turbidity	9.44	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P441577

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2469171	Calcium	0.451	Spike	P	0 - 20
2469171	Iron	1.16	Spike	P	0 - 20
2469171	Magnesium	1.32	Spike	P	0 - 20
2469171	Potassium	1.74	Spike	P	0 - 20
2469171	Sodium	0.665	Spike	P	0 - 20
2469171	Strontium	1.10	Spike	P	0 - 20
2469171	Tin	0.604	Spike	P	0 - 20
2469171	Titanium	0.404	Spike	P	0 - 20
2469171	Vanadium	0.0722	Spike	P	0 - 20
2469171	Zinc	0.219	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P441577

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2469171	Aluminum	0.111	Spike	P	0 - 20
2469171	Antimony	1.82	Spike	P	0 - 20
2469171	Arsenic	1.37	Spike	P	0 - 20
2469171	Barium	0.528	Spike	P	0 - 20
2469171	Beryllium	1.19	Spike	P	0 - 20
2469171	Boron	1.21	Spike	P	0 - 20
2469171	Cadmium	0.325	Spike	P	0 - 20
2469171	Chromium	0.0449	Spike	P	0 - 20
2469171	Cobalt	0.127	Spike	P	0 - 20
2469171	Copper	2.28	Spike	P	0 - 20
2469171	Lead	0.232	Spike	P	0 - 20
2469171	Manganese	1.07	Spike	P	0 - 20
2469171	Molybdenum	0.701	Spike	P	0 - 20
2469171	Nickel	1.56	Spike	P	0 - 20
2469171	Selenium	0.311	Spike	P	0 - 20
2469171	Silver	0.902	Spike	P	0 - 20
2469171	Thallium	0.697	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P442055

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2469021	Chloride	1.29	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P442059

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2469021	Sulfate	1.63	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P441751

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2469155	Ammonia-N	0.765	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P441575

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2469089	Kjeldahl Nitrogen	5.56	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P442340

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2473023	Kjeldahl Nitrogen	3.68	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P441675

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2467061	NO2NO3-N	5.41	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P442234

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2468914	NO2NO3-N	1.47	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P441684

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2468953	Total-P	0.389	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P441687

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2469161	Total-P	1.75	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P441759

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2469168	Aldrin	3.29	Spike	P	0 - 41
2469168	Alpha-BHC	3.58	Spike	P	0 - 25
2469168	Alpha-Chlordane	8.15	Spike	P	0 - 32
2469168	Beta-BHC	2.30	Spike	P	0 - 33
2469168	Beta-Cyfluthrin	13.0	Spike	P	0 - 43
2469168	Bifenthrin	2.37	Spike	P	0 - 52
2469168	Chlorothalonil	21.3	Spike	P	0 - 82
2469168	Cis-Nonachlor	15.4	Spike	P	0 - 33
2469168	Cypermethrin	11.0	Spike	P	0 - 51
2469168	Dacthal	6.88	Spike	P	0 - 27
2469168	DDD-p,p'	3.77	Spike	P	0 - 39
2469168	DDE-p,p'	7.58	Spike	P	0 - 31
2469168	DDT-p,p'	3.57	Spike	P	0 - 29
2469168	Delta-BHC	3.50	Spike	P	0 - 35
2469168	Deltamethrin	38.7	Spike	P	0 - 100
2469168	Dichlobenil	13.2	Spike	P	0 - 40
2469168	Dicofol	2.70	Spike	P	0 - 37
2469168	Dieldrin	5.10	Spike	P	0 - 27
2469168	Endosulfan I	6.87	Spike	P	0 - 23
2469168	Endosulfan II	4.35	Spike	P	0 - 34
2469168	Endosulfan Sulfate	4.70	Spike	P	0 - 36
2469168	Endrin	9.78	Spike	P	0 - 45
2469168	Endrin Aldehyde	8.10	Spike	P	0 - 76
2469168	Endrin Ketone	13.2	Spike	P	0 - 43
2469168	Esfenvalerate	0.640	Spike	P	0 - 51
2469168	Ethalfluralin	7.55	Spike	P	0 - 22
2469168	Fenpropathrin	0.125	Spike	P	0 - 49
2469168	Gamma-BHC	8.89	Spike	P	0 - 28
2469168	Gamma-Chlordane	0.0898	Spike	P	0 - 40
2469168	Heptachlor	16.9	Spike	P	0 - 29
2469168	Heptachlor Epoxide	11.5	Spike	P	0 - 33
2469168	Hexachlorobenzene	4.15	Spike	P	0 - 36
2469168	Kepone	17.9	Spike	P	0 - 85
2469168	Lambda-Cyhalothrin	10.8	Spike	P	0 - 55
2469168	Methoprene	2.55	Spike	P	0 - 53
2469168	Methoxychlor	3.69	Spike	P	0 - 50
2469168	MGK-264	3.61	Spike	P	0 - 43
2469168	Mirex	0.635	Spike	P	0 - 40
2469168	Oxychlordane	1.88	Spike	P	0 - 31
2469168	Permethrin	5.41	Spike	P	0 - 50
2469168	Phenothrin	9.13	Spike	P	0 - 58
2469168	Piperonyl Butoxide	5.38	Spike	P	0 - 100
2469168	Prallethrin	2.54	Spike	P	0 - 39
2469168	Tau-Fluvalinate	9.09	Spike	P	0 - 54

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P441759

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2469168	Tetramethrin	0.226	Spike	P	0 - 51
2469168	Trans-Nonachlor	7.71	Spike	P	0 - 39
2469168	Triclosan Methyl	5.63	Spike	P	0 - 31
2469168	Trifluralin	7.56	Spike	P	0 - 22
2469632	PCB-1016	6.76	Spike	P	0 - 25
2469632	PCB-1260	1.84	Spike	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P441876

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2469595	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	55.0	Spike	F	0 - 30
2469595	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	10.3	Spike	P	0 - 35
2469595	Acetochlor	1.93	Spike	P	0 - 28
2469595	Alachlor	14.0	Spike	P	0 - 30
2469595	Ametryn	5.07	Spike	P	0 - 32
2469595	Atrazine	5.36	Spike	P	0 - 33
2469595	Atrazine Desethyl	1.01	Spike	P	0 - 36
2469595	Avobenzone	2.33	Spike	P	0 - 35
2469595	Azinphos Methyl	1.99	Spike	P	0 - 62
2469595	Azoxystrobin	5.25	Spike	P	0 - 39
2469595	Bromacil	6.89	Spike	P	0 - 33
2469595	Butylate	0.814	Spike	P	0 - 51
2469595	Caffeine	5.27	Spike	P	0 - 100
2469595	Carbophenothion	12.7	Spike	P	0 - 34
2469595	Carfentrazone Ethyl	1.55	Spike	P	0 - 33
2469595	Chlorfenapyr	12.8	Spike	P	0 - 28
2469595	Chlorpyrifos Ethyl	5.29	Spike	P	0 - 31
2469595	Chlorpyrifos Methyl	13.1	Spike	P	0 - 27
2469595	Coumaphos	21.4	Spike	P	0 - 62
2469595	Cyanazine	9.85	Spike	P	0 - 48
2469595	Cyprodinil	16.8	Spike	P	0 - 29
2469595	Dechlorane 602	23.5	Spike	P	0 - 60
2469595	Dechlorane 603	10.3	Spike	P	0 - 40
2469595	Dechlorane Plus	5.69	Spike	P	0 - 38
2469595	Demeton	11.1	Spike	P	0 - 33
2469595	Diazinon	11.2	Spike	P	0 - 32
2469595	Difenoconazole	7.42	Spike	P	0 - 71
2469595	Dimethenamid	2.89	Spike	P	0 - 60
2469595	Dimethomorph	10.6	Spike	P	0 - 61
2469595	Disulfoton	8.32	Spike	P	0 - 30
2469595	Dithiopyr	5.12	Spike	P	0 - 28
2469595	EPTC	0.416	Spike	P	0 - 56
2469595	Ethion	19.1	Spike	P	0 - 79
2469595	Ethoprop	3.14	Spike	P	0 - 31
2469595	Etridiazole	14.4	Spike	P	0 - 43
2469595	Fenamiphos	19.9	Spike	P	0 - 43
2469595	Fenbuconazole	24.3	Spike	P	0 - 79
2469595	Fipronil	7.66	Spike	P	0 - 46
2469595	Fipronil Desulfinyl	14.0	Spike	P	0 - 36

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P441876

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2469595	Fipronil Sulfide	5.64	Spike	P	0 - 34
2469595	Fipronil Sulfone	12.0	Spike	P	0 - 47
2469595	Fluazifop-P-butyl	14.8	Spike	P	0 - 38
2469595	Fludioxonil	10.8	Spike	P	0 - 29
2469595	Flumioxazin	8.01	Spike	P	0 - 63
2469595	Flutolanil	21.1	Spike	P	0 - 36
2469595	Fluxapyroxad	16.6	Spike	P	0 - 65
2469595	Fonofos	5.88	Spike	P	0 - 35
2469595	Hexabromobenzene	7.46	Spike	P	0 - 41
2469595	Hexazinone	2.19	Spike	P	0 - 31
2469595	Imazalil	24.9	Spike	P	0 - 52
2469595	Iprodione	123	Spike	F	0 - 49
2469595	Loratadine	17.9	Spike	P	0 - 59
2469595	Malathion	97.5	Spike	F	0 - 77
2469595	Metalaxyl	3.82	Spike	P	0 - 76
2469595	Metolachlor	23.8	Spike	P	0 - 29
2469595	Metribuzin	2.58	Spike	P	0 - 51
2469595	Mevinphos	24.0	Spike	P	0 - 31
2469595	Molinate	2.12	Spike	P	0 - 39
2469595	Myclobutanil	2.62	Spike	P	0 - 34
2469595	Naled	33.2	Spike	P	0 - 37
2469595	Napropamide	22.4	Spike	P	0 - 100
2469595	Norflurazon	20.8	Spike	P	0 - 54
2469595	Octinoxate	0.429	Spike	P	0 - 35
2469595	Oxadiazon	13.1	Spike	P	0 - 34
2469595	Oxybenzone	0.872	Spike	P	0 - 35
2469595	Oxyfluorfen	5.92	Spike	P	0 - 28
2469595	Parathion Ethyl	5.44	Spike	P	0 - 31
2469595	Parathion Methyl	1.70	Spike	P	0 - 29
2469595	PBB-153	6.22	Spike	P	0 - 49
2469595	PBDE-47	6.46	Spike	P	0 - 36
2469595	PBDE-99	9.30	Spike	P	0 - 46
2469595	Pendimethalin	23.2	Spike	P	0 - 31
2469595	Pentabromotoluene	3.80	Spike	P	0 - 16
2469595	Phenytoin	16.8	Spike	P	0 - 100
2469595	Phorate	4.10	Spike	P	0 - 36
2469595	Prodiamine	5.58	Spike	P	0 - 68
2469595	Prometon	3.82	Spike	P	0 - 35
2469595	Prometryn	21.7	Spike	P	0 - 33
2469595	Pronamide	3.21	Spike	P	0 - 24
2469595	Propanil	13.5	Spike	P	0 - 28
2469595	Propargite	0.760	Spike	P	0 - 53
2469595	Propiconazole	16.1	Spike	P	0 - 44
2469595	Pyraflufen Ethyl	6.49	Spike	P	0 - 61
2469595	Pyridaben	22.1	Spike	P	0 - 43
2469595	Pyriproxyfen	14.4	Spike	P	0 - 82
2469595	Simazine	5.56	Spike	P	0 - 29
2469595	Stirophos	19.7	Spike	P	0 - 100
2469595	Sulfentrazone	3.53	Spike	P	0 - 64
2469595	Tebuconazole	19.8	Spike	P	0 - 76
2469595	Terbufos	3.80	Spike	P	0 - 29

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P441876

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2469595	Terbuthylazine	7.19	Spike	P	0 - 28
2469595	Tetradecachloro-m-terphenyl	9.77	Spike	P	0 - 42
2469595	Thiobencarb	89.7	Spike	F	0 - 26
2469595	Tri-o-cresyl Phosphate	0.898	Spike	P	0 - 24
2469595	Triadimefon	16.2	Spike	P	0 - 40
2469595	Tris(1-chloro-2-propyl) phosphate (TCPP)	4.64	Spike	P	0 - 30
2469595	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	2.19	Spike	P	0 - 22
2469595	Tris(2-chloroethyl) phosphate (TCEP)	2.62	Spike	P	0 - 15

Reference Method: EPA 8276
Batch ID: P441759

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2469632	Chlordane	0.0846	Spike	P	0 - 28
2469632	Toxaphene	14.1	Spike	P	0 - 27

Reference Method: EPA 8321B
Batch ID: P441446

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2469056	2,4-D	14.9	Spike	P	0 - 30
2469056	2,4,5-T	17.4	Spike	P	0 - 30
2469056	Acetaminophen	6.78	Spike	P	0 - 30
2469056	Acetamiprid	2.31	Spike	P	0 - 30
2469056	Afidopyropen	26.1	Spike	P	0 - 30
2469056	Bentazon	4.39	Spike	P	0 - 30
2469056	Benzovindiflupyr	8.40	Spike	P	0 - 30
2469056	Carbamazepine	9.44	Spike	P	0 - 30
2469056	Clothianidin	12.2	Spike	P	0 - 30
2469056	Dinotefuran	7.96	Spike	P	0 - 30
2469056	Diuron	6.66	Spike	P	0 - 30
2469056	Fenuron	4.49	Spike	P	0 - 30
2469056	Fluridone	4.50	Spike	P	0 - 30
2469056	Hydrocodone	7.95	Spike	P	0 - 30
2469056	Ibuprofen	11.6	Spike	P	0 - 30
2469056	Imazapyr	1.36	Spike	P	0 - 30
2469056	Imidacloprid	10.2	Spike	P	0 - 30
2469056	Linuron	12.9	Spike	P	0 - 30
2469056	Mandestrobin	7.54	Spike	P	0 - 30
2469056	MCPP	7.06	Spike	P	0 - 30
2469056	Naproxen	18.4	Spike	P	0 - 30
2469056	Primidone	14.0	Spike	P	0 - 30
2469056	Pyraclostrobin	9.09	Spike	P	0 - 30
2469056	Silvex	4.78	Spike	P	0 - 30
2469056	Thiamethoxam	8.20	Spike	P	0 - 30
2469056	Tolfenpyrad	19.8	Spike	P	0 - 30
2469056	Triclopyr	2.69	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P441467

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2468562	3-Hydroxycarbofuran	7.76	Spike	P	0 - 30
2468562	Aldicarb	6.67	Spike	P	0 - 30
2468562	Aldicarb Sulfone	5.33	Spike	P	0 - 30
2468562	Aldicarb Sulfoxide	9.65	Spike	P	0 - 30
2468562	Carbaryl	5.48	Spike	P	0 - 30
2468562	Carbofuran	0.740	Spike	P	0 - 30
2468562	Methiocarb	1.02	Spike	P	0 - 30
2468562	Methomyl	2.22	Spike	P	0 - 30
2468562	Oxamyl	1.38	Spike	P	0 - 30
2468562	Propoxur	1.29	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P441572

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2469167	Acesulfame K	2.03	Spike	P	0 - 30
2469167	AMPA	1.84	Spike	P	0 - 30
2469167	Endothall	0.677	Spike	P	0 - 30
2469167	Glufosinate	0.169	Spike	P	0 - 30
2469167	Glyphosate	2.08	Spike	P	0 - 30
2469167	Sucralose	3.62	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P441938

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2469160	Total Alkalinity	0.513	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P441929

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2469154	TDS	3.88	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P441941

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2469160	Fluoride	0.0	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2014
Batch ID: P441610

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2469089	Organic Carbon	0.606	Spike	P	0 - 15

Quality Assurance Report
Precision

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

Quality Assurance Report
Surrogates

Lab Sample ID: 2469166
Field Sample ID: G4SE0167

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	76.5	P	30 - 160

Lab Sample ID: 2469167
Field Sample ID: G4SE0167

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	119	P	30 - 160
EPA 8321B	Acetaminophen-d4	95.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	103	P	30 - 160
EPA 8321B	Diuron-d6	92.5	P	30 - 160
EPA 8321B	Endothall-d6	98.7	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	105	P	30 - 160
EPA 8321B	Ibuprofen-d3	83.8	P	30 - 160
EPA 8321B	Primidone-d5	96.2	P	30 - 160
EPA 8321B	Sucralose-d6	96.4	P	30 - 160

Lab Sample ID: 2469168
Field Sample ID: G4SE0192

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	52.0	P	37 - 129
EPA 8270E	Decachlorobiphenyl	59.5	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	42.0	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	33.0	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	51.0	P	23 - 110
EPA 8276	PCNB	81.3	P	51 - 130

Lab Sample ID: 2469169
Field Sample ID: G4SE0167

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	72.1	P	37 - 129
EPA 8270E	Decachlorobiphenyl	85.6	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	64.1	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	47.1	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	65.7	P	23 - 110
EPA 8276	PCNB	113	P	51 - 130

Lab Sample ID: 2469170
Field Sample ID: G4SE0167

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	73.4	P	20 - 200
EPA 8270E	Simazine-d10	82.1	P	58 - 137
EPA 8270E	Terbufos-d10	88.4	P	50 - 134
EPA 8270E	Terphenyl-d14	100	P	44 - 134

Quality Assurance Report
Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A124196
Included Lab Sample IDs: 2469154, 2469156, 2469158, 2469160

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

Reference Method: DEP SOP: NU-094-1
Run ID: A124197
Included Lab Sample IDs: 2469154, 2469156, 2469158, 2469160

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.3	99.7	P/P	90 - 110

Reference Method: SM 5310 B-2014
Run ID: A124233
Included Lab Sample IDs: 2469155, 2469157, 2469159, 2469161

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	113	98.4	P/P	70 - 130

Reference Method: EPA 8321B
Run ID: A124241
Included Lab Sample IDs: 2469167

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	98.2	107	P/P	50 - 150
2,4,5-T	109	105	P/P	50 - 150
3-Hydroxycarbofuran	103	99.1	P/P	60 - 150
Acetaminophen	106	104	P/P	60 - 160
Acetamiprid	108	112	P/P	50 - 150
Afidopyropen	102	116	P/P	50 - 150
Aldicarb	116	106	P/P	60 - 150
Aldicarb Sulfone	101	98.1	P/P	50 - 150
Aldicarb Sulfoxide	112	112	P/P	50 - 150
Bentazon	78.9	88.0	P/P	50 - 160
Benzovindiflupyr	97.3	100	P/P	50 - 150
Carbamazepine	110	109	P/P	60 - 150
Carbaryl	115	97.6	P/P	60 - 150
Carbofuran	119	106	P/P	50 - 150
Clothianidin	93.8	94.6	P/P	60 - 150
Dinotefuran	104	99.3	P/P	50 - 150
Diuron	99.9	97.1	P/P	60 - 160
Fenuron	107	105	P/P	60 - 150
Fluridone	104	113	P/P	60 - 160
Hydrocodone	107	107	P/P	60 - 150
Ibuprofen	72.2	158	P/P	50 - 160
Imazapyr	103	102	P/P	50 - 150
Imidacloprid	88.2	89.6	P/P	60 - 150
Linuron	102	111	P/P	60 - 150
Mandestrobin	108	106	P/P	50 - 150
MCPP	108	106	P/P	50 - 150
Methiocarb	97.4	108	P/P	50 - 150
Methomyl	105	100	P/P	50 - 150
Naproxen	100	94.6	P/P	50 - 160
Oxamyl	116	107	P/P	50 - 150

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A124241
Included Lab Sample IDs: 2469167

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Primidone	92.6	102	P/P	60 - 150
Propoxur	112	108	P/P	50 - 150
Pyraclostrobin	101	99.1	P/P	60 - 150
Silvex	97.5	101	P/P	50 - 150
Thiamethoxam	96.9	94.2	P/P	50 - 150
Tolfenpyrad	97.6	97.2	P/P	60 - 150
Triclopyr	98.8	87.8	P/P	50 - 150

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A124258
Included Lab Sample IDs: 2469155, 2469161

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	102	P/P	90 - 110
NO2NO3-N	103	104	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A124271
Included Lab Sample IDs: 2469155, 2469157, 2469159

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	97.9	P/P	90 - 110
Kjeldahl Nitrogen	109	100	P/P	90 - 110
Kjeldahl Nitrogen	98.0	101	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A124278
Included Lab Sample IDs: 2469167

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	130	148	P/P	60 - 160
Sucralose	102	107	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A124279
Included Lab Sample IDs: 2469167

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	101	99.1	P/P	60 - 160
Endothall	87.0	84.8	P/P	60 - 160
Glufosinate	79.3	88.2	P/P	60 - 160
Glyphosate	89.2	97.7	P/P	60 - 160

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A124280
Included Lab Sample IDs: 2469171

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	97.8	98.8	P/P	90 - 110
Antimony	96.9	97.7	P/P	90 - 110
Arsenic	98.5	98.6	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A124280
Included Lab Sample IDs: 2469171

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	96.7	97.4	P/P	90 - 110
Beryllium	95.0	94.9	P/P	90 - 110
Boron	99.8	103	P/P	90 - 110
Cadmium	96.6	97.5	P/P	90 - 110
Chromium	93.2	95.5	P/P	90 - 110
Cobalt	94.9	96.7	P/P	90 - 110
Copper	97.9	99.9	P/P	90 - 110
Lead	93.2	94.5	P/P	90 - 110
Manganese	93.1	94.1	P/P	90 - 110
Molybdenum	97.7	98.8	P/P	90 - 110
Nickel	96.8	99.2	P/P	90 - 110
Selenium	97.2	98.3	P/P	90 - 110
Silver	96.2	97.4	P/P	90 - 110
Thallium	96.7	97.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A124297
Included Lab Sample IDs: 2469155, 2469157, 2469159, 2469161

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.5	98.3	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A124298
Included Lab Sample IDs: 2469155, 2469157, 2469159, 2469161

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	97.0	102	P/P	90 - 110

Reference Method: SM 2320 B-2011
Run ID: A124375
Included Lab Sample IDs: 2469154, 2469156, 2469158, 2469160

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	94.9	97.8	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Run ID: A124375
Included Lab Sample IDs: 2469154, 2469156, 2469158, 2469160

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

Reference Method: EPA 8270E
Run ID: A124403
Included Lab Sample IDs: 2469170

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	97.9		P	80 - 120
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	99.3		P	80 - 120
Avobenzone	103		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A124403
Included Lab Sample IDs: 2469170

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Dechlorane 602	107		P	80 - 120
Dechlorane 603	106		P	80 - 120
Dechlorane Plus	101		P	80 - 120
Hexabromobenzene	110		P	80 - 120
Octinoxate	102		P	80 - 120
Oxybenzone	98.5		P	80 - 120
PBB-153	93.8		P	80 - 120
PBDE-47	96.2		P	80 - 120
PBDE-99	99.0		P	80 - 120
Pentabromotoluene	98.0		P	80 - 120
Tetradecachloro-m-terphenyl	94.4		P	80 - 120
Tri-o-cresyl Phosphate	105		P	80 - 120
Tris(1-chloro-2-propyl) phosphate (TCPP)	97.6		P	80 - 120
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	103		P	80 - 120
Tris(2-chloroethyl) phosphate (TCEP)	92.4		P	80 - 120

Reference Method: EPA 8276
Run ID: A124430
Included Lab Sample IDs: 2469168, 2469169

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	90.8		P	80 - 120
Toxaphene	86.0		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A124439
Included Lab Sample IDs: 2469154, 2469156, 2469158, 2469160

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	102	102	P/P	90 - 110
Chloride	99.9	102	P/P	90 - 110
Sulfate	102	102	P/P	90 - 110
Sulfate	100	102	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A124470
Included Lab Sample IDs: 2469168, 2469169

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	102		P	80 - 120
PCB-1260	104		P	80 - 120

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A124511
Included Lab Sample IDs: 2469157, 2469159

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A124554
Included Lab Sample IDs: 2469168, 2469169

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	98.4		P	80 - 120
Alpha-BHC	102		P	80 - 120
Alpha-Chlordane	110		P	80 - 120
Beta-BHC	105		P	80 - 120
Beta-Cyfluthrin	96.6		P	80 - 120
Bifenthrin	104		P	80 - 120
Chlorothalonil	97.9		P	80 - 120
Cis-Nonachlor	109		P	80 - 120
Cypermethrin	99.5		P	80 - 120
Dacthal	105		P	80 - 120
DDD-p,p'	97.8		P	80 - 120
DDE-p,p'	102		P	80 - 120
DDT-p,p'	99.4		P	80 - 120
Delta-BHC	101		P	80 - 120
Deltamethrin	100		P	80 - 120
Dichlobenil	112		P	80 - 120
Dicofol	99.3		P	80 - 120
Dieldrin	97.7		P	80 - 120
Endosulfan I	98.9		P	80 - 120
Endosulfan II	96.5		P	80 - 120
Endosulfan Sulfate	98.2		P	80 - 120
Endrin	97.6		P	80 - 120
Endrin Aldehyde	99.1		P	80 - 120
Endrin Ketone	102		P	80 - 120
Esfenvalerate	101		P	80 - 120
Ethalfluralin	95.5		P	80 - 120
Fenpropathrin	106		P	80 - 120
Gamma-BHC	101		P	80 - 120
Gamma-Chlordane	111		P	80 - 120
Heptachlor	101		P	80 - 120
Heptachlor Epoxide	115		P	80 - 120
Hexachlorobenzene	99.3		P	80 - 120
Kepone	101		P	80 - 120
Lambda-Cyhalothrin	99.0		P	80 - 120
Methoprene	97.4		P	80 - 120
Methoxychlor	98.7		P	80 - 120
MGK-264	107		P	80 - 120
Mirex	107		P	80 - 120
Oxychlordane	109		P	80 - 120
Permethrin	100		P	80 - 120
Phenothrin	102		P	80 - 120
Piperonyl Butoxide	102		P	80 - 120
Prallethrin	97.4		P	80 - 120
Tau-Fluvalinate	96.0		P	80 - 120
Tetramethrin	98.5		P	80 - 120
Trans-Nonachlor	108		P	80 - 120
Triclosan Methyl	112		P	80 - 120
Trifluralin	99.9		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A124555
Included Lab Sample IDs: 2469171

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	96.7	98.3	P/P	90 - 110
Iron	95.5	97.1	P/P	90 - 110
Magnesium	95.7	97.3	P/P	90 - 110
Potassium	96.6	98.0	P/P	90 - 110
Sodium	96.7	97.5	P/P	90 - 110
Strontium	96.3	93.7	P/P	90 - 110
Tin	99.1	99.0	P/P	90 - 110
Titanium	99.7	98.6	P/P	90 - 110
Vanadium	97.9	96.1	P/P	90 - 110
Zinc	96.6	94.1	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A124590
Included Lab Sample IDs: 2469170

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	99.8		P	80 - 120
Alachlor	92.3		P	80 - 120
Ametryn	94.0		P	80 - 120
Atrazine	99.5		P	80 - 120
Atrazine Desethyl	91.7		P	80 - 120
Azinphos Methyl	99.8		P	80 - 120
Azoxystrobin	97.8		P	80 - 120
Bromacil	96.5		P	80 - 120
Butylate	98.4		P	80 - 120
Caffeine	95.5		P	80 - 120
Carbophenothion	94.1		P	80 - 120
Carfentrazone Ethyl	91.7		P	80 - 120
Chlorfenapyr	94.3		P	80 - 120
Chlorpyrifos Ethyl	101		P	80 - 120
Chlorpyrifos Methyl	101		P	80 - 120
Coumaphos	90.3		P	80 - 120
Cyanazine	86.5		P	80 - 120
Cyprodinil	84.6		P	80 - 120
Demeton	104		P	80 - 120
Diazinon	102		P	80 - 120
Difenoconazole	93.2		P	80 - 120
Dimethenamid	101		P	80 - 120
Dimethomorph	102		P	80 - 120
Disulfoton	101		P	80 - 120
Dithiopyr	98.7		P	80 - 120
EPTC	99.5		P	80 - 120
Ethion	98.7		P	80 - 120
Ethoprop	103		P	80 - 120
Etridiazole	103		P	80 - 120
Fenamiphos	93.6		P	80 - 120
Fenbuconazole	94.4		P	80 - 120
Fipronil	97.3		P	80 - 120
Fipronil Desulfinyl	101		P	80 - 120
Fipronil Sulfide	96.0		P	80 - 120
Fipronil Sulfone	88.1		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A124590
Included Lab Sample IDs: 2469170

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluazifop-P-butyl	90.0		P	80 - 120
Fludioxonil	89.6		P	80 - 120
Flumioxazin	102		P	80 - 120
Flutolanil	90.7		P	80 - 120
Fluxapyroxad	101		P	80 - 120
Fonofos	92.3		P	80 - 120
Hexazinone	100		P	80 - 120
Imazalil	93.9		P	80 - 120
Iprodione	98.6		P	80 - 120
Loratadine	100		P	80 - 120
Malathion	104		P	80 - 120
Metalaxyl	98.5		P	80 - 120
Metolachlor	93.0		P	80 - 120
Metribuzin	101		P	80 - 120
Mevinphos	107		P	80 - 120
Molinate	99.3		P	80 - 120
Myclobutanil	96.9		P	80 - 120
Naled	110		P	80 - 120
Napropamide	90.4		P	80 - 120
Oxadiazon	96.6		P	80 - 120
Oxyfluorfen	103		P	80 - 120
Parathion Ethyl	98.6		P	80 - 120
Parathion Methyl	105		P	80 - 120
Pendimethalin	94.4		P	80 - 120
Phenytoin	97.4		P	80 - 120
Phorate	97.7		P	80 - 120
Prodiamine	103		P	80 - 120
Prometon	102		P	80 - 120
Prometryn	90.6		P	80 - 120
Pronamide	103		P	80 - 120
Propanil	109		P	80 - 120
Propargite	94.0		P	80 - 120
Propiconazole	93.3		P	80 - 120
Pyraflufen Ethyl	89.9		P	80 - 120
Pyridaben	101		P	80 - 120
Pyriproxyfen	100		P	80 - 120
Simazine	96.5		P	80 - 120
Stirophos	92.7		P	80 - 120
Sulfentrazone	94.4		P	80 - 120
Tebuconazole	92.1		P	80 - 120
Terbufos	97.3		P	80 - 120
Terbuthylazine	102		P	80 - 120
Thiobencarb	99.3		P	80 - 120
Triadimefon	90.0		P	80 - 120

Reference Method: EPA 8270E
Run ID: A124591
Included Lab Sample IDs: 2469170

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Norflurazon	118		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A124603
Included Lab Sample IDs: 2469161

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.6	100	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	SMP	MS
DEP SOP: NU-094-1	Color (true)	101					7.20	
EPA 180.1 Rev. 2.0	Turbidity	103					9.44	
EPA 200.7 Rev. 4.4	Calcium	101	99.2	98.3				0.451
	Iron	105	102	103	102			1.16
	Magnesium	99.9	97.3	105				1.32
	Potassium	99.2	96.5	96.3				1.74
	Sodium	101	98.1	97.7				0.665
	Strontium	95.1	93.6	92.4	92.7			1.10
	Tin	96.2	92.1	92.6	93.2			0.604
	Titanium	99.7	99.2	99.6	97.3			0.404
	Vanadium	95.9	95.4	95.4	95.6			0.0722
	Zinc	93.8	93.0	93.2	92.2			0.219
EPA 200.8 Rev. 5.4	Aluminum	101	100	100	86.0			0.111
	Antimony	98.8	98.4	100	98.2			1.82
	Arsenic	102	101	102	99.2			1.37
	Barium	100	100	99.3	97.3			0.528
	Beryllium	90.6	92.9	92.5	93.6			1.19
	Boron	105	105	107	110			1.21
	Cadmium	99.5	101	100	101			0.325
	Chromium	100	99.4	99.4	104			0.0449
	Cobalt	100	98.6	100	98.5			0.127
	Copper	100	100	103	102			2.28
	Lead	94.9	95.8	95.5	96.3			0.232
	Manganese	99.5	97.8	99.0	97.7			1.07
	Molybdenum	98.8	99.6	100	98.2			0.701
	Nickel	100	99.1	101	102			1.56
	Selenium	100	97.9	98.2	91.5			0.311
	Silver	105	101	102	104			0.902
	Thallium	98.4	102	101	102			0.697
EPA 300.0 Rev. 2.1	Chloride	101	99.1	100			1.29	
	Sulfate	101	99.0	98.4			1.63	
EPA 350.1 Rev. 2.0	Ammonia-N	96.6	95.8	96.6				0.765
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	106	103	110				5.56
	Kjeldahl Nitrogen	103	97.2	103				3.68
EPA 353.2 Rev. 2.0	NO2NO3-N	102	90.0	95.0				5.41
	NO2NO3-N	101	97.0	98.5				1.47
EPA 365.1 Rev. 2.0	Total-P	105	106	106				0.389
	Total-P	105	107	105				1.75
EPA 8270E	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	54.0	51.5	90.5				55.0
	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	97.1	90.6	100				10.3
	Acetochlor	104	107	105				1.93
	Alachlor	90.0	80.3	92.3				14.0
	Aldrin	49.1	73.9	71.5				3.29
	Alpha-BHC	88.9	89.3	92.6				3.58
	Alpha-Chlordane	79.6	110	101				8.15
	Ametryn	97.6	125	118				5.07
	Atrazine	93.9						5.36
	Atrazine Desethyl	81.2	101	100				1.01
	Avobenzone	124	114	117				2.33
	Azinphos Methyl	129	105	103				1.99
	Azoxystrobin	93.2	99.8	105				5.25

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8270E	Beta-BHC	84.9	91.2	93.3			2.30
	Beta-Cyfluthrin	65.4	106	93.4			13.0
	Bifenthrin	52.9	116	118			2.37
	Bromacil	108	104	111			6.89
	Butylate	58.4	62.6	62.1			0.814
	Caffeine	98.9	111	104			5.27
	Carbophenothion	80.5	83.4	73.4			12.7
	Carfentrazone Ethyl	90.3	73.3	74.4			1.55
	Chlorfenapyr	78.4	84.6	74.4			12.8
	Chlorothalonil	64.5	112	139			21.3
	Chlorpyrifos Ethyl	102	110	115			5.29
	Chlorpyrifos Methyl	103	108	123			13.1
	Cis-Nonachlor	72.0	83.8	97.8			15.4
	Coumaphos	105	121	97.4			21.4
	Cyanazine	103	111	100			9.85
	Cypermethrin	60.0	90.3	80.9			11.0
	Cyprodinil	86.5	113	95.9			16.8
	Dacthal	95.8	123	115			6.88
	DDD-p,p'	59.8	73.1	70.4			3.77
	DDE-p,p'	60.1	75.5	70.0			7.58
	DDT-p,p'	77.3	83.1	79.3			3.57
	Dechlorane 602	95.4	64.4	81.5			23.5
	Dechlorane 603	107	84.4	93.6			10.3
	Dechlorane Plus	94.8	75.9	80.4			5.69
	Delta-BHC	90.2	118	114			3.50
	Deltamethrin	83.0	96.4	143			38.7
	Demeton	87.3	107	119			11.1
	Diazinon	104	120	134			11.2
	Dichlobenil	81.5	63.8	55.8			13.2
	Dicofol	70.3	82.3	80.2			2.70
	Dieldrin	61.0	75.3	71.5			5.10
	Difenoconazole	74.2	88.6	82.2			7.42
	Dimethenamid	102	107	110			2.89
	Dimethomorph	95.4	128	115			10.6
	Disulfoton	92.0	113	123			8.32
	Dithiopyr	95.4	102	107			5.12
	Endosulfan I	64.3	74.2	69.2			6.87
	Endosulfan II	65.1	74.3	71.1			4.35
	Endosulfan Sulfate	88.5	84.3	80.4			4.70
	Endrin	69.8	80.7	73.2			9.78
	Endrin Aldehyde	70.9	46.8	43.2			8.10
	Endrin Ketone	74.2	82.5	72.3			13.2
	EPTC	55.2	58.9	58.6			0.416
	Esfenvalerate	71.4	130	129			0.640
	Ethalfluralin	71.3	82.8	76.8			7.55
	Ethion	86.9	87.7	72.4			19.1
	Ethoprop	83.4	92.4	95.3			3.14
	Etridiazole	70.1	62.0	71.6			14.4
	Fenamiphos	97.9	92.0	75.3			19.9
	Fenbuconazole	64.1	74.5	58.4			24.3
	Fenpropathrin	78.3	113	113			0.125
	Fipronil	101	104	112			7.66
	Fipronil Desulfinyl	83.4	83.2	97.5			14.0
	Fipronil Sulfide	89.7	93.6	99.8			5.64

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8270E	Fipronil Sulfone	86.9	90.4	77.6			12.0
	Fluazifop-P-butyl	79.0	84.3	72.7			14.8
	Fludioxonil	79.1	81.4	73.1			10.8
	Flumioxazin	168	143	132			8.01
	Flutolanil	85.5	74.6	60.4			21.1
	Fluxapyroxad	107	123	104			16.6
	Fonofos	83.0	96.6	91.1			5.88
	Gamma-BHC	94.7	95.1	104			8.89
	Gamma-Chlordane	77.5	104	104			0.0898
	Heptachlor	68.3	82.1	97.2			16.9
	Heptachlor Epoxide	95.0	116	103			11.5
	Hexabromobenzene	93.8	107	99.8			7.46
	Hexachlorobenzene	65.1	80.8	77.5			4.15
	Hexazinone	97.3	112	110			2.19
	Imazalil	80.1	85.7	110			24.9
	Iprodione	104	11.7	48.9			123
	Kepone	70.9	77.9	65.1			17.9
	Lambda-Cyhalothrin	27.3	57.0	51.2			10.8
	Loratadine	80.5	97.4	81.4			17.9
	Malathion	123	76.4	26.3			97.5
	Metalaxyl	90.6	102	98.1			3.82
	Methoprene	42.3	79.6	81.7			2.55
	Methoxychlor	77.8	91.2	94.7			3.69
	Metolachlor	84.3	88.3	69.6			23.8
	Metribuzin	95.8	105	108			2.58
	Mevinphos	111	90.6	115			24.0
	MGK-264	83.1	102	106			3.61
	Mirex	54.7	79.5	80.0			0.635
	Molinate	66.9	78.3	76.7			2.12
	Myclobutanil	103	110	113			2.62
	Naled	79.3	59.7	83.5			33.2
	Napropamide	73.6	77.7	62.1			22.4
	Norflurazon	79.5	82.6	67.1			20.8
	Octinoxate	98.1	89.3	89.7			0.429
	Oxadiazon	78.0	82.4	72.3			13.1
	Oxybenzone	96.3	87.3	86.6			0.872
	Oxychlordane	79.2	132	130			1.88
	Oxyfluorfen	107	118	125			5.92
	Parathion Ethyl	92.8	106	101			5.44
	Parathion Methyl	98.8	117	115			1.70
	PBB-153	97.7	91.2	97.1			6.22
	PBDE-47	103	86.5	92.3			6.46
	PBDE-99	102	82.2	90.2			9.30
	PCB-1016	72.7	82.1	76.8			6.76
	PCB-1260	87.4	95.9	94.1			1.84
	Pendimethalin	118	127	101			23.2
	Pentabromotoluene	84.1	79.9	76.9			3.80
	Permethrin	66.3	89.1	94.1			5.41
	Phenothrin	41.2	114	125			9.13
	Phenytoin	94.8	35.6	30.1			16.8
	Phorate	75.5	105	110			4.10
	Piperonyl Butoxide	86.4	79.9	84.8			5.38
	Prallethrin	56.7	61.7	63.3			2.54
	Prodiamine	118	113	107			5.58

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8270E	Prometon	112	130	125			3.82
	Prometryn	110	130	104			21.7
	Pronamide	109	120	116			3.21
	Propanil	86.2	88.7	77.5			13.5
	Propargite	81.5	79.0	79.6			0.760
	Propiconazole	89.2	112	95.4			16.1
	Pyraflufen Ethyl	84.5	70.0	74.7			6.49
	Pyridaben	110	133	106			22.1
	Pyriproxyfen	103	118	103			14.4
	Simazine	100	114	108			5.56
	Stirophos	88.1	69.0	56.6			19.7
	Sulfentrazone	102	31.4	30.3			3.53
	Tau-Fluvalinate	53.5	102	112			9.09
	Tebuconazole	85.2	97.9	80.3			19.8
	Terbufos	85.3	106	102			3.80
	Terbuthylazine	91.4	97.8	91.0			7.19
	Tetradecachloro-m-terphenyl	80.5	85.7	77.7			9.77
	Tetramethrin	82.7	126	126			0.226
	Thiobencarb	104	104	39.6			89.7
	Trans-Nonachlor	74.3	78.3	84.6			7.71
	Tri-o-cresyl Phosphate	107	95.9	96.8			0.898
	Triadimefon	73.7	77.8	91.5			16.2
	Triclosan Methyl	89.4	104	110			5.63
	Trifluralin	72.2	79.7	73.9			7.56
	Tris(1-chloro-2-propyl) phosphate (TCPP)	98.4	98.8	94.4			4.64
	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	107	97.5	99.7			2.19
	Tris(2-chloroethyl) phosphate (TCEP)	108	97.1	94.5			2.62
EPA 8276	Chlordane	72.3	78.2	78.3			0.0846
	Toxaphene	70.5	72.1	83.1			14.1
EPA 8321B	2,4-D	106	111	95.4			14.9
	2,4,5-T	128	122	103			17.4
	3-Hydroxycarbofuran	77.1	78.8	72.9			7.76
	Acesulfame K	124	122	124			2.03
	Acetaminophen	88.0	104	97.5			6.78
	Acetamiprid	75.8	82.0	80.1			2.31
	Afidopyropen	55.6	57.8	75.2			26.1
	Aldicarb	61.3	69.5	65.0			6.67
	Aldicarb Sulfone	91.5	62.4	59.2			5.33
	Aldicarb Sulfoxide	120	35.2	32.0			9.65
	AMPA	103	101	103			1.84
	Bentazon	95.7	94.8	90.7			4.39
	Benzovindiflupyr	83.9	85.2	78.3			8.40
	Carbamazepine	87.9	79.9	72.7			9.44
	Carbaryl	80.3	62.1	65.6			5.48
	Carbofuran	81.1	65.7	65.2			0.740
	Clothianidin	88.6	97.1	85.9			12.2
	Dinotefuran	99.0	107	98.7			7.96
	Diuron	82.3	78.7	73.1			6.66
	Endothall	87.1	93.4	94.0			0.677
	Fenuron	97.5	95.6	91.4			4.49
	Fluridone	96.5	85.6	81.9			4.50

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8321B	Glufosinate	90.3	88.5	88.6			0.169
	Glyphosate	99.3	97.9	95.9			2.08
	Hydrocodone	89.3	85.0	78.5			7.95
	Ibuprofen	99.5	53.1	59.6			11.6
	Imazapyr	101	98.1	96.8			1.36
	Imidacloprid	86.6	109	98.9			10.2
	Linuron	77.5	83.4	73.3			12.9
	Mandestrobin	88.7	91.2	84.6			7.54
	MCPP	101	103	95.6			7.06
	Methiocarb	69.0	64.9	64.3			1.02
	Methomyl	89.3	73.5	71.9			2.22
	Naproxen	77.7	94.7	78.8			18.4
	Oxamyl	97.5	44.8	44.2			1.38
	Primidone	79.8	89.8	78.0			14.0
	Propoxur	79.1	60.3	59.5			1.29
	Pyraclostrobin	78.9	79.8	72.8			9.09
	Silvex	93.1	94.8	90.4			4.78
	Sucralose	98.4	102	106			3.62
	Thiamethoxam	86.2	88.5	81.5			8.20
	Tolfenpyrad	49.8	59.2	48.5			19.8
	Triclopyr	124	109	112			2.69
SM 2320 B-2011	Total Alkalinity	100				0.513	
SM 2540 C-2015	TDS	102				3.88	
SM 2540 D-2015	TSS	96.8					
SM 4500-F- C-2011	Fluoride	101	101	101			0.0
SM 5310 B-2014	Organic Carbon	99.6	100	101			0.606

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2469154, 2469156, 2469158, 2469160
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2469154, 2469156, 2469158, 2469160
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2469171
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2469171
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2469154, 2469156, 2469158, 2469160
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2469154, 2469156, 2469158, 2469160
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2469155, 2469157, 2469159, 2469161
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2469155, 2469157, 2469159, 2469161
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2469155, 2469157, 2469159, 2469161
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2469155, 2469157, 2469159, 2469161
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2469170
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2469168, 2469169
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2469170
EPA 8270E	PCBs in water matrices by GC/MS/MS	2469168, 2469169
EPA 8276	Chlordane and Toxaphene in water matrices by GC/MS with Negative Chemical Ionization	2469168, 2469169
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2469166
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2469167
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2469154, 2469156, 2469158, 2469160
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2469171
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2469154, 2469156, 2469158, 2469160

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	2469154, 2469156, 2469158, 2469160
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2469154, 2469156, 2469158, 2469160
SM 5310 B-2014	Nonpurgeable Organic Carbon in aqueous matrices	2469155, 2469157, 2469159, 2469161

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	02/15/2024			02/15/2024 13:58	Jessica K Wilks	2469154
	02/15/2024			02/15/2024 14:00	Jessica K Wilks	2469156, 2469158
	02/15/2024			02/15/2024 14:01	Jessica K Wilks	2469160
EPA 180.1 Rev. 2.0	02/15/2024			02/15/2024 12:40	Dipa Joshi	2469154
	02/15/2024			02/15/2024 12:42	Dipa Joshi	2469156
	02/15/2024			02/15/2024 12:43	Dipa Joshi	2469158
	02/15/2024			02/15/2024 12:45	Dipa Joshi	2469160
EPA 200.7 Rev. 4.4	02/15/2024	02/16/2024 14:25	George D Taylor	03/05/2024 21:02	Conrad Hartmann	2469171
EPA 200.8 Rev. 5.4	02/15/2024	02/16/2024 14:25	George D Taylor	02/20/2024 16:54	Conrad Hartmann	2469171
EPA 300.0 Rev. 2.1	02/15/2024			02/26/2024 21:20	James L Waggerby	2469158
	02/15/2024			02/27/2024 01:22	James L Waggerby	2469154
	02/15/2024			02/27/2024 01:37	James L Waggerby	2469156
	02/15/2024			02/27/2024 01:52	James L Waggerby	2469160
EPA 350.1 Rev. 2.0	02/15/2024			02/21/2024 11:43	Khloe J Berg	2469155
	02/15/2024			02/21/2024 11:55	Khloe J Berg	2469157
	02/15/2024			02/21/2024 11:56	Khloe J Berg	2469159
	02/15/2024			02/21/2024 11:57	Khloe J Berg	2469161
EPA 351.2 Rev. 2.0	02/15/2024	02/19/2024 11:23	Ping Hua	02/20/2024 13:13	Robyn Blevins	2469155
	02/15/2024	02/19/2024 11:23	Ping Hua	02/20/2024 13:19	Robyn Blevins	2469159
	02/15/2024	02/19/2024 11:23	Ping Hua	02/20/2024 14:48	Robyn Blevins	2469157
	02/15/2024	03/06/2024 10:07	Ping Hua	03/07/2024 13:22	Robyn Blevins	2469161
EPA 353.2 Rev. 2.0	02/15/2024			02/19/2024 13:25	Fadila Guebre	2469155
	02/15/2024			02/19/2024 15:45	Fadila Guebre	2469161
	02/15/2024			03/01/2024 14:47	Fadila Guebre	2469157
	02/15/2024			03/01/2024 14:49	Fadila Guebre	2469159
EPA 365.1 Rev. 2.0	02/15/2024	02/21/2024 07:43	Adam P Silver	02/21/2024 13:29	Simonne.V. Calhoun	2469155
	02/15/2024	02/21/2024 07:43	Adam P Silver	02/21/2024 13:31	Simonne.V. Calhoun	2469161
	02/15/2024	02/21/2024 07:43	Adam P Silver	02/21/2024 13:32	Simonne.V. Calhoun	2469157
	02/15/2024	02/21/2024 07:43	Adam P Silver	02/21/2024 13:33	Simonne.V. Calhoun	2469159
EPA 8270E	02/15/2024	02/20/2024 08:30	Rasheda Ghaffari	02/26/2024 21:19	Arthur Maknenko	2469170
	02/15/2024	02/20/2024 08:30	Rasheda Ghaffari	02/28/2024 18:46	Julie Wi	2469170
	02/15/2024	02/20/2024 08:30	Rasheda Ghaffari	02/29/2024 17:11	Julie Wi	2469170
	02/15/2024	02/21/2024 08:30	Rasheda Ghaffari	02/28/2024 22:21	Lipi Saha	2469168
	02/15/2024	02/21/2024 08:30	Rasheda Ghaffari	02/28/2024 22:51	Lipi Saha	2469169
	02/15/2024	02/21/2024 08:30	Rasheda Ghaffari	03/04/2024 20:20	Julie Wi	2469168
	02/15/2024	02/21/2024 08:30	Rasheda Ghaffari	03/04/2024 20:52	Julie Wi	2469169
EPA 8276	02/15/2024	02/21/2024 08:30	Rasheda Ghaffari	02/27/2024 12:14	Arthur Maknenko	2469168
	02/15/2024	02/21/2024 08:30	Rasheda Ghaffari	02/27/2024 13:11	Arthur Maknenko	2469169
EPA 8321B	02/15/2024	02/15/2024 13:00	Hoor Shaik	02/16/2024 22:36	Juyoung Kim	2469167
	02/15/2024	02/16/2024 09:00	Hoor Shaik	02/17/2024 02:46	Juyoung Kim	2469166

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	02/15/2024	02/20/2024 08:00	Hana Lee	02/20/2024 10:15	Hana Lee	2469167
	02/15/2024	02/20/2024 08:00	Hana Lee	02/20/2024 12:32	Hana Lee	2469167
SM 2320 B-2011	02/15/2024			02/23/2024 04:55	Dale L. Simmons	2469160
	02/15/2024			02/23/2024 05:28	Dale L. Simmons	2469154
	02/15/2024			02/23/2024 05:39	Dale L. Simmons	2469156
	02/15/2024			02/23/2024 05:51	Dale L. Simmons	2469158
SM 2340 B-2011	02/15/2024			03/05/2024 21:02	Conrad Hartmann	2469171
SM 2540 C-2015	02/15/2024			02/16/2024 15:01	Yijie Li	2469154, 2469156, 2469158, 2469160
SM 2540 D-2015	02/15/2024			02/16/2024 15:01	Yijie Li	2469154, 2469156, 2469158, 2469160
SM 4500-F- C-2011	02/15/2024			02/23/2024 04:46	Dale L. Simmons	2469160
	02/15/2024			02/23/2024 05:28	Dale L. Simmons	2469154
	02/15/2024			02/23/2024 05:39	Dale L. Simmons	2469156
	02/15/2024			02/23/2024 05:51	Dale L. Simmons	2469158
SM 5310 B-2014	02/15/2024			02/17/2024 04:17	Khloe J Berg	2469155
	02/15/2024			02/17/2024 04:31	Khloe J Berg	2469157
	02/15/2024			02/17/2024 04:45	Khloe J Berg	2469159
	02/15/2024			02/17/2024 04:59	Khloe J Berg	2469161