Chemical Analysis Report

SE-DIST-2022-09-08-01

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

Event Description: **Sebastian Boat and Blank**
Request ID: **RQ-2022-09-05-29**
Customer: **SE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
2199 South Rock Road
Fort Pierce, FL 34945
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Certified by: Colin Wright, Program Administrator

Date Certified: 06-OCT-2022 09:25

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: Sebastian @ Dale Wimbrow **Collection Date/Time: 09/07/2022 10:45**

Field ID: G5SE0073 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2355049	EPA 8270E	Aldrin	0.68	U	ng/L	P419360	
		Alpha-BHC	0.10	U	ng/L	P419360	
		Alpha-Chlordane	0.21	U	ng/L	P419360	
		PCB-1016	2.1	U	ng/L	P419360	
		Beta-BHC	0.37	I	ng/L	P419360	
		PCB-1221	2.1	U	ng/L	P419360	
		Beta-Cyfluthrin	1.3	U	ng/L	P419360	
		PCB-1232	2.1	U	ng/L	P419360	
		Bifenthrin	0.52	U	ng/L	P419360	
		PCB-1242	2.1	U	ng/L	P419360	
		Carbophenothion	0.94	U	ng/L	P419360	
		PCB-1248	2.1	U	ng/L	P419360	
		Chlorothalonil	1.3	U	ng/L	P419360	
		PCB-1254	2.1	U	ng/L	P419360	
		Cis-Nonachlor	0.21	U	ng/L	P419360	
		PCB-1260	2.1	U	ng/L	P419360	
		Cypermethrin	1.6	U	ng/L	P419360	
		Dacthal	0.16	U	ng/L	P419360	
		DDD-p,p'	0.26	U	ng/L	P419360	
		DDE-p,p'	0.21	U	ng/L	P419360	
		DDT-p,p'	0.26	U	ng/L	P419360	
		Delta-BHC	0.42	U	ng/L	P419360	
		Deltamethrin	1.3	U	ng/L	P419360	
		Dichlobenil	0.26	U	ng/L	P419360	
		Dicofol	1.3	UJ	ng/L	P419360	LCS
		Dieldrin	0.42	U	ng/L	P419360	
		Endosulfan I	0.42	U	ng/L	P419360	
		Endosulfan II	0.42	U	ng/L	P419360	
		Endosulfan Sulfate	0.31	U	ng/L	P419360	
		Endrin	0.42	U	ng/L	P419360	
		Endrin Aldehyde	0.79	U	ng/L	P419360	
		Endrin Ketone	0.42	U	ng/L	P419360	
		Esfenvalerate	0.79	U	ng/L	P419360	
		Ethalfluralin	0.16	U	ng/L	P419360	
		Fenpropathrin	0.26	U	ng/L	P419360	
		Gamma-BHC	0.13	U	ng/L	P419360	
		Gamma-Chlordane	0.21	U	ng/L	P419360	
		Heptachlor	0.21	U	ng/L	P419360	
		Heptachlor Epoxide	0.26	U	ng/L	P419360	
		Hexachlorobenzene**	1.0	U	ng/L	P419360	
		Kepone	5.2	U	ng/L	P419360	
		Lambda-Cyhalothrin	0.79	U	ng/L	P419360	
		Methoprene	0.79	U	ng/L	P419360	
		Methoxychlor	0.31	UJ	ng/L	P419360	CCV

Field ID: G5SE0073 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2355049	EPA 8270E	MGK-264	0.21	U	ng/L	P419360	
		Mirex	0.37	U	ng/L	P419360	
		Oxychlordane	0.31	U	ng/L	P419360	
		Permethrin	1.7	U	ng/L	P419360	
		Phenothrin	0.94	U	ng/L	P419360	
		Piperonyl Butoxide	0.16	U	ng/L	P419360	
		Prallethrin	2.1	U	ng/L	P419360	
		Tau-Fluvalinate	0.26	U	ng/L	P419360	
		Tetramethrin	0.79	UJ	ng/L	P419360	CCV
		Trans-Nonachlor	0.21	U	ng/L	P419360	
		Triclosan Methyl	0.16	U	ng/L	P419360	
		Trifluralin	0.21	U	ng/L	P419360	
	EPA 8276	Chlordane	2.6	U	ng/L	P419360	
		Toxaphene	16	U	ng/L	P419360	
2355054	EPA 8321B	Acesulfame K	0.10	U	ug/L	P419298	
		2,4-D	0.0040	I	ug/L	P419277	
		AMPA	1.0	U	ug/L	P419298	
		2,4,5-T	0.0040	U	ug/L	P419277	
		Acetaminophen	0.0080	U	ug/L	P419277	
		Endothall	0.25	U	ug/L	P419298	
		Acetamiprid	0.0020	U	ug/L	P419277	
		Glufosinate	1.0	U	ug/L	P419298	
		Glyphosate	1.0	U	ug/L	P419298	
		Afidopyropen	0.0020	U	ug/L	P419277	
		Sucralose	0.28		ug/L	P419298	
		Bentazon	0.022		ug/L	P419277	
		Benzovindiflupyr	0.0020	U	ug/L	P419277	
		Carbamazepine	8.0E-04	U	ug/L	P419277	
		Clothianidin	0.039		ug/L	P419277	
		Dinotefuran	0.0020	U	ug/L	P419277	
		Diuron	0.0020	U	ug/L	P419277	
		Fenuron	0.032	U	ug/L	P419277	
		Fluridone	0.0017	I	ug/L	P419277	
		Imazapyr	0.14		ug/L	P419277	
		Hydrocodone	0.0020	U	ug/L	P419277	
		Ibuprofen	0.080	U	ug/L	P419277	
		Imidacloprid	0.0020	U	ug/L	P419277	
		Linuron	0.0040	U	ug/L	P419277	
		Mandestrobin	0.0020	U	ug/L	P419277	
		MCPP	0.0040	U	ug/L	P419277	
		Naproxen	0.0080	U	ug/L	P419277	MS, RPD
		Primidone	0.0040	U	ug/L	P419277	
		Pyraclostrobin	0.0020	U	ug/L	P419277	
		Silvex	0.0040	U	ug/L	P419277	
		Thiamethoxam	0.0020	U	ug/L	P419277	

Field ID: G5SE0073 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2355054	EPA 8321B	Tolfenpyrad	0.0020	U	ug/L	P419277	
		Triclopyr	0.0040	U	ug/L	P419277	

Ref. Method and Comment:
EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8321B: Some MDLs are elevated due to required dilution of sample matrix.

Sample Location: South Prong Sebastian @ Park Dock **Collection Date/Time: 09/07/2022 11:10**

Field ID: G5SE0079 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2355026	EPA 180.1 Rev. 2.0	Turbidity	2.6	A	NTU	P419325	
	SM 2320 B-2011	Total Alkalinity	151	A	mg CaCO3/L	P419884	
	SM 2540 D-2011	TSS	7	I	mg/L	P419667	
	SM 4500-F- C-2011	Fluoride	0.70		mg F/L	P419606	
2355027	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P419627	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.72		mg N/L	P419393	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P420297	
	EPA 365.1 Rev. 2.0	Total-P	0.17		mg P/L	P419535	
	SM 5310 B-2011	Organic Carbon	10		mg C/L	P419639	
2355047	EPA 8270E	Aldrin	0.66	U	ng/L	P419360	
		Alpha-BHC	0.10	U	ng/L	P419360	
		Alpha-Chlordane	0.20	U	ng/L	P419360	
		PCB-1016	2.0	U	ng/L	P419360	
		Beta-BHC	0.10	U	ng/L	P419360	
		PCB-1221	2.0	U	ng/L	P419360	
		Beta-Cyfluthrin	1.3	U	ng/L	P419360	
		PCB-1232	2.0	U	ng/L	P419360	
		Bifenthrin	0.51	U	ng/L	P419360	
		PCB-1242	2.0	U	ng/L	P419360	
		PCB-1248	2.0	U	ng/L	P419360	
		Chlorothalonil	1.3	U	ng/L	P419360	
		PCB-1254	2.0	U	ng/L	P419360	
		Cis-Nonachlor	0.20	U	ng/L	P419360	
		PCB-1260	2.0	U	ng/L	P419360	
		Cypermethrin	1.5	U	ng/L	P419360	
		Dacthal	0.15	U	ng/L	P419360	
		DDD-p,p'	0.25	U	ng/L	P419360	
		DDE-p,p'	0.20	U	ng/L	P419360	
		DDT-p,p'	0.25	U	ng/L	P419360	
		Delta-BHC	0.40	U	ng/L	P419360	
		Deltamethrin	1.3	U	ng/L	P419360	
		Dichlobenil	0.25	U	ng/L	P419360	
		Dicofol	1.3	UJ	ng/L	P419360	LCS
		Dieldrin	0.40	U	ng/L	P419360	
		Endosulfan I	0.40	U	ng/L	P419360	
		Endosulfan II	0.40	U	ng/L	P419360	
		Endosulfan Sulfate	0.30	U	ng/L	P419360	
		Endrin	0.40	U	ng/L	P419360	
		Endrin Aldehyde	0.76	U	ng/L	P419360	
		Endrin Ketone	0.40	U	ng/L	P419360	
		Esfenvalerate	0.76	U	ng/L	P419360	
		Ethalfluralin	0.15	U	ng/L	P419360	
		Fenpropathrin	0.25	U	ng/L	P419360	
		Gamma-BHC	0.13	U	ng/L	P419360	

Field ID: G5SE0079 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2355047	EPA 8270E	Gamma-Chlordane	0.20	U	ng/L	P419360	
		Heptachlor	0.20	U	ng/L	P419360	
		Heptachlor Epoxide	0.25	U	ng/L	P419360	
		Hexachlorobenzene**	1.0	U	ng/L	P419360	
		Kepone	5.1	U	ng/L	P419360	
		Lambda-Cyhalothrin	0.76	U	ng/L	P419360	
		Methoprene	0.76	U	ng/L	P419360	
		Methoxychlor	0.30	UJ	ng/L	P419360	CCV
		MGK-264	0.20	U	ng/L	P419360	
		Mirex	0.35	U	ng/L	P419360	
		Oxychlordane	0.30	U	ng/L	P419360	
		Permethrin	1.6	U	ng/L	P419360	
		Phenothrin	0.91	U	ng/L	P419360	
		Piperonyl Butoxide	0.15	U	ng/L	P419360	
		Prallethrin	2.0	U	ng/L	P419360	
		Tau-Fluvalinate	0.25	U	ng/L	P419360	
		Tetramethrin	0.76	UJ	ng/L	P419360	CCV
		Trans-Nonachlor	0.20	U	ng/L	P419360	
		Triclosan Methyl	0.15	U	ng/L	P419360	
		Trifluralin	0.20	U	ng/L	P419360	
	EPA 8276	Chlordane	2.5	U	ng/L	P419360	
		Toxaphene	15	U	ng/L	P419360	
2355048	EPA 8270E	Oxybenzone**	9.7	UQ	ng/L	P420385	
		Acetochlor	0.25	U	ng/L	P419392	
		Octinoxate**	19	UQ	ng/L	P420385	
		Alachlor	0.25	U	ng/L	P419392	
		Avobenzone**	97	UQ	ng/L	P420385	
		Ametryn	0.59	U	ng/L	P419392	
		Atrazine	5.1		ng/L	P419392	
		PBDE-47**	3.9	UQ	ng/L	P420385	
		Atrazine Desethyl	1.5	U	ng/L	P419392	
		PBDE-99**	4.8	UQ	ng/L	P420385	
		Azinphos Methyl	2.0	U	ng/L	P419392	
		Tri-o-cresyl Phosphate**	5.8	UQ	ng/L	P420385	
		Azoxystrobin	0.49	U	ng/L	P419392	
		Bromacil	0.49	U	ng/L	P419392	
		2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)**	12	UQ	ng/L	P420385	
		Butylate	0.39	U	ng/L	P419392	
		Dechlorane Plus**	29	UQ	ng/L	P420385	
		Caffeine**	7.4	U	ng/L	P419392	
		Carbophenothion	0.20	U	ng/L	P419392	
		Carfentrazone Ethyl	0.098	U	ng/L	P419392	
		Chlorfenapyr	0.17	U	ng/L	P419392	
		Chlorpyrifos Ethyl	0.25	U	ng/L	P419392	

Field ID: G5SE0079 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2355048	EPA 8270E	Chlorpyrifos Methyl	0.049	U	ng/L	P419392	
		Coumaphos	0.49	U	ng/L	P419392	
		Cyanazine	3.2	U	ng/L	P419392	
		Cyprodinil	0.098	U	ng/L	P419392	
		Demeton	1.5	U	ng/L	P419392	
		Diazinon	0.12	U	ng/L	P419392	
		Difenoconazole	0.59	U	ng/L	P419392	
		Dimethenamid	0.098	U	ng/L	P419392	
		Dimethomorph	0.17	U	ng/L	P419392	
		Disulfoton	0.49	U	ng/L	P419392	
		Dithiopyr	1.8	V	ng/L	P419392	
		EPTC	1.2	U	ng/L	P419392	
		Ethion	0.15	U	ng/L	P419392	
		Ethoprop	0.098	U	ng/L	P419392	
		Etridiazole	0.15	U	ng/L	P419392	
		Fenamiphos	0.49	U	ng/L	P419392	
		Fenbuconazole	1.3		ng/L	P419392	
		Fipronil	0.25	UJ	ng/L	P419392	LCS
		Fipronil Desulfinyl**	0.15	I	ng/L	P419392	
		Fipronil Sulfide	0.15	UJ	ng/L	P419392	LCS
		Fipronil Sulfone	0.23	I	ng/L	P419392	
		Fluazifop-P-butyl	0.098	U	ng/L	P419392	
		Fludioxonil	0.12	U	ng/L	P419392	
		Flumioxazin	1.7	U	ng/L	P419392	
		Flutolanil	0.098	U	ng/L	P419392	
		Fluxapyroxad	0.59		ng/L	P419392	RPD
		Fonofos	0.20	U	ng/L	P419392	
		Hexazinone	1.1	I	ng/L	P419392	
		Imazalil	0.74	U	ng/L	P419392	
		Iprodione	0.59	U	ng/L	P419392	
		Loratadine**	0.098	U	ng/L	P419392	
		Malathion	0.34	U	ng/L	P419392	
		Metalaxyl	0.74	U	ng/L	P419392	
		Metolachlor	0.34	U	ng/L	P419392	
		Metribuzin	2.5	U	ng/L	P419392	
		Mevinphos	1.0	U	ng/L	P419392	
		Molinate	0.29	U	ng/L	P419392	
		Myclobutanil	0.25	U	ng/L	P419392	
		Naled	1.5	U	ng/L	P419392	
		Napropamide	0.39	U	ng/L	P419392	
		Norflurazon	24		ng/L	P419392	
		Oxadiazon	0.99	I	ng/L	P419392	
		Oxyfluorfen	0.15	U	ng/L	P419392	MS
		Parathion Ethyl	0.25	U	ng/L	P419392	
		Parathion Methyl	0.54	U	ng/L	P419392	

Field ID: G5SE0079 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2355048	EPA 8270E	Pendimethalin	0.98	U	ng/L	P419392	
		Phenytoin**	3.4	U	ng/L	P419392	MS, RPD
		Phorate	0.52	U	ng/L	P419392	
		Prodiamine	0.17	U	ng/L	P419392	
		Prometon	0.88	U	ng/L	P419392	
		Prometryn	0.20	U	ng/L	P419392	MS
		Pronamide	0.15	U	ng/L	P419392	
		Propanil	0.12	U	ng/L	P419392	
		Propargite	1.5	U	ng/L	P419392	
		Propiconazole	0.49	U	ng/L	P419392	
		Pyraflufen Ethyl	0.25	U	ng/L	P419392	
		Pyridaben	0.44	U	ng/L	P419392	
		Pyriproxyfen	0.12	U	ng/L	P419392	
		Simazine	0.49	U	ng/L	P419392	
		Stirophos	0.12	U	ng/L	P419392	RPD
		Sulfentrazone	1.6	I	ng/L	P419392	
		Tebuconazole	0.66	I	ng/L	P419392	
		Terbufos	0.098	U	ng/L	P419392	
		Terbuthylazine	0.42	U	ng/L	P419392	
		Thiobencarb	0.59	U	ng/L	P419392	
		Triadimefon	0.25	U	ng/L	P419392	

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8270E: Sample expired for preparation due to need for re-extraction.
EPA 8270E: MS accuracy for multiple parameters not assessed due to high content of these parameters in the sample spiked. V - Due to the presence of dithiopyr in one of the Method Blanks and the sample. Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: Sebastian 970m downstream of S-157 **Collection Date/Time: 09/07/2022 11:45**

Field ID: G5SE0084 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2355022	EPA 180.1 Rev. 2.0	Turbidity	6.0		NTU	P419324	
	SM 2320 B-2011	Total Alkalinity	182		mg CaCO3/L	P419602	
	SM 2540 D-2011	TSS	7	I A	mg/L	P419668	
	SM 4500-F- C-2011	Fluoride	0.43		mg F/L	P419605	
2355024	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P419361	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P419393	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.027		mg N/L	P420297	
	EPA 365.1 Rev. 2.0	Total-P	0.17		mg P/L	P419535	
	SM 5310 B-2011	Organic Carbon	14		mg C/L	P419639	
2355055	EPA 200.7 Rev. 4.4	Calcium	126		mg/L	P419339	
		Iron	690		ug/L	P419339	
		Magnesium	121		mg/L	P419339	
		Strontium	3.36E+03		ug/L	P419339	
		Tin	20	I	ug/L	P419339	
		Titanium	3.0	U	ug/L	P419339	
		Vanadium	8.0	U	ug/L	P419339	
		Zinc	20	U	ug/L	P419339	
	EPA 200.8 Rev. 5.4	Aluminum	20	U	ug/L	P419339	
		Antimony	0.20	U	ug/L	P419339	
		Arsenic	1.26		ug/L	P419339	
		Beryllium	0.040	U	ug/L	P419339	
		Cadmium	0.080	U	ug/L	P419339	
		Chromium	1.6	U	ug/L	P419339	
		Cobalt	0.13	I	ug/L	P419339	
		Copper	1.6	U	ug/L	P419339	
		Lead	0.80	U	ug/L	P419339	
		Manganese	23.6		ug/L	P419339	
		Molybdenum	2.7		ug/L	P419339	
		Nickel	2.0	U	ug/L	P419339	
		Selenium	0.80	U	ug/L	P419339	
		Silver	0.040	U	ug/L	P419339	
		Thallium	0.40	U	ug/L	P419339	

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium, magnesium and strontium are unavailable because of high analyte concentration in the QC sample.

Sample Location: FB **Collection Date/Time: 09/07/2022 11:50**

Field ID: FB_09072022 Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2355028	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P419325	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P419620	
	SM 2540 D-2011	TSS	2	U	mg/L	P419664	
	SM 4500-F- C-2011	Fluoride	0.035	U	mg F/L	P419622	
2355029	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P419364	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P419517	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P419541	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P419466	
	SM 5310 B-2011	Organic Carbon	0.50	U	mg C/L	P419491	
2355057	EPA 200.7 Rev. 4.4	Calcium	0.075	U	mg/L	P419409	
		Iron	30	U	ug/L	P419409	
		Magnesium	0.040	U	mg/L	P419409	
		Strontium	2.0	U	ug/L	P419409	
		Tin	3.0	U	ug/L	P419409	
		Titanium	0.75	U	ug/L	P419409	
		Vanadium	2.0	U	ug/L	P419409	
		Zinc	5.0	U	ug/L	P419409	
	EPA 200.8 Rev. 5.4	Aluminum	5.0	U	ug/L	P419671	
		Antimony	0.050	U	ug/L	P419409	
		Arsenic	0.050	U	ug/L	P419409	
		Beryllium	0.010	U	ug/L	P419409	
		Cadmium	0.020	U	ug/L	P419409	
		Chromium	0.40	U	ug/L	P419409	
		Cobalt	0.020	U	ug/L	P419409	
		Copper	0.40	U	ug/L	P419409	
		Lead	0.20	U	ug/L	P419409	
		Manganese	0.10	U	ug/L	P419409	
		Molybdenum	0.15	U	ug/L	P419409	
		Nickel	0.50	U	ug/L	P419409	
		Selenium	0.20	U	ug/L	P419409	
		Silver	0.010	U	ug/L	P419409	
		Thallium	0.10	U	ug/L	P419409	

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: C-54 confluence 1.25 miles downstream of S-157

Collection Date/Time: 09/07/2022 12:00

Field ID: G5SE0116

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2355023	EPA 180.1 Rev. 2.0	Turbidity	8.5		NTU	P419324	
	SM 2320 B-2011	Total Alkalinity	190		mg CaCO3/L	P419602	
	SM 2540 D-2011	TSS	12		mg/L	P419667	
	SM 4500-F- C-2011	Fluoride	0.43		mg F/L	P419605	
2355025	EPA 350.1 Rev. 2.0	Ammonia-N	0.010		mg N/L	P419627	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.8		mg N/L	P419516	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P420297	
	EPA 365.1 Rev. 2.0	Total-P	0.22		mg P/L	P419535	
	SM 5310 B-2011	Organic Carbon	14		mg C/L	P419639	
2355056	EPA 200.7 Rev. 4.4	Calcium	138		mg/L	P419339	
		Iron	530		ug/L	P419339	
		Magnesium	163		mg/L	P419339	
		Strontium	3.64E+03		ug/L	P419339	
		Tin	15	I	ug/L	P419339	
		Titanium	3.0	U	ug/L	P419339	
		Vanadium	8.0	U	ug/L	P419339	
		Zinc	20	U	ug/L	P419339	
	EPA 200.8 Rev. 5.4	Aluminum	20	U	ug/L	P419339	
		Antimony	0.20	U	ug/L	P419339	
		Arsenic	1.37		ug/L	P419339	
		Beryllium	0.040	U	ug/L	P419339	
		Cadmium	0.080	U	ug/L	P419339	
		Chromium	1.6	U	ug/L	P419339	
		Cobalt	0.28	I	ug/L	P419339	
		Copper	1.6	U	ug/L	P419339	
		Lead	0.80	U	ug/L	P419339	
		Manganese	25.2		ug/L	P419339	
		Molybdenum	2.7		ug/L	P419339	
		Nickel	2.0	U	ug/L	P419339	
		Selenium	0.80	U	ug/L	P419339	
		Silver	0.040	U	ug/L	P419339	
		Thallium	0.40	U	ug/L	P419339	

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium, magnesium and strontium are unavailable because of high analyte concentration in the QC sample.

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P419324

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P419325

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P419339

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P419409

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

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P419339

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P419339

Component	Result	Code	Units
Thallium	0.10	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P419409

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

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P419671

Component	Result	Code	Units
Aluminum	5.0	U	ug/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P419361

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P419364

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P419627

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P419393

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P419516

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P419517

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P419541

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P420297

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P419466

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P419535

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

Reference Method: EPA 8270E
Batch ID: P419360

Component	Result	Code	Units
Aldrin	0.65	U	ng/L
Aldrin	0.65	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Bifenthrin	0.50	U	ng/L
Bifenthrin	0.50	U	ng/L
Carbophenothion	0.90	U	ng/L
Carbophenothion	0.90	U	ng/L
Chlorothalonil	1.2	U	ng/L
Chlorothalonil	1.2	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P419360

Component	Result	Code	Units
Cis-Nonachlor	0.20	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cypermethrin	1.5	U	ng/L
Cypermethrin	1.5	U	ng/L
Dacthal	0.15	U	ng/L
Dacthal	0.15	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDT-p,p'	0.25	U	ng/L
DDT-p,p'	0.25	U	ng/L
Delta-BHC	0.40	U	ng/L
Delta-BHC	0.40	U	ng/L
Deltamethrin	1.2	U	ng/L
Deltamethrin	1.2	U	ng/L
Dichlobenil	0.25	U	ng/L
Dichlobenil	0.25	U	ng/L
Dicofol	1.2	U	ng/L
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.40	U	ng/L
Endrin	0.40	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Ketone	0.40	U	ng/L
Endrin Ketone	0.40	U	ng/L
Esfenvalerate	0.75	U	ng/L
Esfenvalerate	0.75	U	ng/L
Ethalfluralin	0.15	U	ng/L
Ethalfluralin	0.15	U	ng/L
Fenpropathrin	0.25	U	ng/L
Fenpropathrin	0.25	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Kepone	5.0	U	ng/L
Kepone	5.0	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P419360

Component	Result	Code	Units
Lambda-Cyhalothrin	0.75	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoxychlor	0.30	U	ng/L
Methoxychlor	0.30	U	ng/L
MGK-264	0.20	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.35	U	ng/L
Mirex	0.35	U	ng/L
Oxychlordane	0.30	U	ng/L
Oxychlordane	0.30	U	ng/L
PCB-1016	2.0	U	ng/L
PCB-1016	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1242	2.0	U	ng/L
PCB-1242	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1254	2.0	U	ng/L
PCB-1254	2.0	U	ng/L
PCB-1260	2.0	U	ng/L
PCB-1260	2.0	U	ng/L
Permethrin	1.6	U	ng/L
Permethrin	1.6	U	ng/L
Phenothrin	0.90	U	ng/L
Phenothrin	0.90	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Prallethrin	2.0	U	ng/L
Prallethrin	2.0	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tetramethrin	0.75	U	ng/L
Tetramethrin	0.75	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Trifluralin	0.20	U	ng/L
Trifluralin	0.20	U	ng/L

Reference Method: EPA 8270E
Batch ID: P419392

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P419392

Component	Result	Code	Units
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azoxystrobin	0.50	U	ng/L
Azoxystrobin	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Butylate	0.40	U	ng/L
Caffeine	7.5	U	ng/L
Caffeine	7.5	U	ng/L
Carbophenothion	0.20	U	ng/L
Carbophenothion	0.20	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Chlorfenapyr	0.18	U	ng/L
Chlorfenapyr	0.18	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Coumaphos	0.50	U	ng/L
Coumaphos	0.50	U	ng/L
Cyanazine	3.2	U	ng/L
Cyanazine	3.2	U	ng/L
Cyprodinil	0.10	U	ng/L
Cyprodinil	0.10	U	ng/L
Demeton	1.5	U	ng/L
Demeton	1.5	U	ng/L
Diazinon	0.12	U	ng/L
Diazinon	0.12	U	ng/L
Difenoconazole	0.60	U	ng/L
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethomorph	0.18	U	ng/L
Dimethomorph	0.18	U	ng/L
Disulfoton	0.50	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.36	I	ng/L
Dithiopyr	0.18	U	ng/L
EPTC	1.2	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P419392

Component	Result	Code	Units
Ethoprop	0.10	U	ng/L
Etridiazole	0.15	U	ng/L
Etridiazole	0.15	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.12	U	ng/L
Fludioxonil	0.12	U	ng/L
Flumioxazin	1.8	U	ng/L
Flumioxazin	1.8	U	ng/L
Flutolanil	0.10	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fonofos	0.20	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.75	U	ng/L
Imazalil	0.75	U	ng/L
Iprodione	0.60	U	ng/L
Iprodione	0.60	U	ng/L
Loratadine	0.10	U	ng/L
Loratadine	0.10	U	ng/L
Malathion	0.35	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.75	U	ng/L
Metalaxyl	0.75	U	ng/L
Metolachlor	0.35	U	ng/L
Metolachlor	0.35	U	ng/L
Metribuzin	2.5	U	ng/L
Metribuzin	2.5	U	ng/L
Mevinphos	1.0	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.30	U	ng/L
Molinate	0.30	U	ng/L
Myclobutanil	0.25	U	ng/L
Myclobutanil	0.25	U	ng/L
Naled	1.5	U	ng/L
Naled	1.5	U	ng/L
Napropamide	0.40	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P419392

Component	Result	Code	Units
Napropamide	0.40	U	ng/L
Norflurazon	0.50	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Phenytoin	3.5	U	ng/L
Phenytoin	3.5	U	ng/L
Phorate	0.52	U	ng/L
Phorate	0.52	U	ng/L
Prodiamine	0.18	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Prometryn	0.20	U	ng/L
Pronamide	0.15	U	ng/L
Pronamide	0.15	U	ng/L
Propanil	0.12	U	ng/L
Propanil	0.12	U	ng/L
Propargite	1.5	U	ng/L
Propargite	1.5	U	ng/L
Propiconazole	0.50	U	ng/L
Propiconazole	0.50	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyridaben	0.45	U	ng/L
Pyridaben	0.45	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Simazine	0.50	U	ng/L
Simazine	0.50	U	ng/L
Stirophos	0.12	U	ng/L
Stirophos	0.12	U	ng/L
Sulfentrazone	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L
Terbuthylazine	0.42	U	ng/L
Thiobencarb	0.60	U	ng/L
Thiobencarb	0.60	U	ng/L
Triadimefon	0.25	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P419392

Component	Result	Code	Units
Triadimefon	0.25	U	ng/L

Reference Method: EPA 8270E
Batch ID: P420385

Component	Result	Code	Units
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	12	U	ng/L
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	12	U	ng/L
Avobenzone	100	U	ng/L
Avobenzone	100	U	ng/L
Dechlorane Plus	30	U	ng/L
Dechlorane Plus	30	U	ng/L
Octinoxate	27	I	ng/L
Octinoxate	24	I	ng/L
Oxybenzone	10	U	ng/L
Oxybenzone	10	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-99	5.0	U	ng/L
PBDE-99	5.0	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L

Reference Method: EPA 8276
Batch ID: P419360

Component	Result	Code	Units
Chlordane	2.5	U	ng/L
Chlordane	2.5	U	ng/L
Toxaphene	15	U	ng/L
Toxaphene	15	U	ng/L

Reference Method: EPA 8321B
Batch ID: P419277

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8321B
Batch ID: P419277

Component	Result	Code	Units
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0040	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: P419298

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: P419602

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

Reference Method: SM 2320 B-2011
Batch ID: P419620

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

Reference Method: SM 2320 B-2011
Batch ID: P419884

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

Reference Method: SM 2540 D-2011
Batch ID: P419664

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P419667

Component	Result	Code	Units
TSS	3	U	mg/L

Quality Assurance Report
Method Blank Results

Reference Method: SM 2540 D-2011
Batch ID: P419668

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P419605

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500-F- C-2011
Batch ID: P419606

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500-F- C-2011
Batch ID: P419622

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P419491

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

Reference Method: SM 5310 B-2011
Batch ID: P419639

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P419324

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	96.9		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P419325

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	96.4		P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P419339

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	107		P	85 - 115
Iron	112		P	85 - 115
Magnesium	107		P	85 - 115
Strontium	108		P	85 - 115
Tin	108		P	85 - 115
Titanium	106		P	85 - 115
Vanadium	105		P	85 - 115
Zinc	104		P	85 - 115

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P419409

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	103		P	85 - 115
Iron	106		P	85 - 115
Magnesium	106		P	85 - 115
Strontium	103		P	85 - 115
Tin	107		P	85 - 115
Titanium	103		P	85 - 115
Vanadium	102		P	85 - 115
Zinc	102		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P419339

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	99.8		P	85 - 115
Antimony	103		P	85 - 115
Arsenic	102		P	85 - 115
Beryllium	91.9		P	85 - 115
Cadmium	99.8		P	85 - 115
Chromium	100		P	85 - 115
Cobalt	97.1		P	85 - 115
Copper	97.3		P	85 - 115
Lead	93.6		P	85 - 115
Manganese	98.6		P	85 - 115
Molybdenum	99.1		P	85 - 115
Nickel	98.3		P	85 - 115
Selenium	101		P	85 - 115
Silver	85.3		P	85 - 115

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P419339

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Thallium	99.4		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P419409

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Antimony	102		P	85 - 115
Arsenic	102		P	85 - 115
Beryllium	100		P	85 - 115
Cadmium	98.8		P	85 - 115
Chromium	100		P	85 - 115
Cobalt	96.5		P	85 - 115
Copper	99.4		P	85 - 115
Lead	91.8		P	85 - 115
Manganese	98.9		P	85 - 115
Molybdenum	97.6		P	85 - 115
Nickel	101		P	85 - 115
Selenium	102		P	85 - 115
Silver	88.3		P	85 - 115
Thallium	97.4		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P419671

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	99.1		P	85 - 115

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P419361

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P419364

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P419627

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P419393

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P419516

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P419517

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P419541

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P420297

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P419466

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P419535

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

Reference Method: EPA 8270E
Batch ID: P419360

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	57.5		P	10 - 92.0
Alpha-BHC	86.5		P	75 - 107
Alpha-Chlordane	74.8		P	50 - 108
Beta-BHC	116		P	36 - 138
Beta-Cyfluthrin	63.8		P	20 - 161
Bifenthrin	46.8		P	10 - 119
Carbophenothion	56.0		P	19 - 94.0
Chlorothalonil	133		P	26 - 186
Cis-Nonachlor	58.0		P	42 - 119
Cypermethrin	45.9		P	22 - 150
Dacthal	94.6		P	72 - 119
DDD-p,p'	47.0		P	45 - 107
DDE-p,p'	74.2		P	48 - 106
DDT-p,p'	71.9		P	48 - 110
Delta-BHC	135		P	54 - 140
Deltamethrin	80.5		P	22 - 189

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P419360

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Dichlobenil	92.9		P	36 - 117
Dicofol	37.0		F	46 - 155
Dieldrin	55.7		P	54 - 110
Endosulfan I	84.1		P	59 - 105
Endosulfan II	85.2		P	51 - 118
Endosulfan Sulfate	97.1		P	57 - 121
Endrin	83.8		P	10 - 120
Endrin Aldehyde	61.2		P	34 - 118
Endrin Ketone	90.9		P	69 - 177
Esfenvalerate	68.5		P	23 - 168
Ethalfluralin	63.7		P	49 - 99.0
Fenpropathrin	58.6		P	34 - 117
Gamma-BHC	97.3		P	72 - 117
Gamma-Chlordane	71.5		P	43 - 106
Heptachlor	42.6		P	41 - 98.0
Heptachlor Epoxide	79.2		P	57 - 106
Hexachlorobenzene	64.0		P	36 - 99.0
Kepone	213		P	16 - 215
Lambda-Cyhalothrin	41.5		P	21 - 177
Methoprene	54.4		P	10 - 119
Methoxychlor	92.7		P	60 - 112
MGK-264	83.4		P	26 - 122
Mirex	40.5		P	10 - 169
Oxychlordane	71.5		P	43 - 105
PCB-1016	73.4		P	48 - 112
PCB-1260	75.7		P	44 - 118
Permethrin	45.2		P	24 - 148
Phenothrin	29.2		P	10 - 106
Piperonyl Butoxide	108		P	10 - 139
Prallethrin	65.0		P	17 - 109
Tau-Fluvalinate	52.8		P	13 - 131
Tetramethrin	77.4		P	10 - 132
Trans-Nonachlor	76.8		P	44 - 106
Triclosan Methyl	79.6		P	59 - 109
Trifluralin	65.9		P	44 - 101

Reference Method: EPA 8270E
Batch ID: P419392

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	86.6		P	70 - 121
Alachlor	79.9		P	68 - 119
Ametryn	79.2		P	64 - 139
Atrazine	81.1		P	76 - 120
Atrazine Desethyl	61.3		P	44 - 126
Azinphos Methyl	109		P	43 - 192
Azoxystrobin	104		P	36 - 224
Bromacil	108		P	52 - 121
Butylate	40.8		P	28 - 91.0
Caffeine	72.6		P	50 - 134
Carbophenothion	81.0		P	56 - 129
Carfentrazone Ethyl	88.8		P	60 - 141

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P419392

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlorfenapyr	83.3		P	56 - 115
Chlorpyrifos Ethyl	106		P	60 - 118
Chlorpyrifos Methyl	93.1		P	68 - 119
Coumaphos	144		P	18 - 250
Cyanazine	130		P	61 - 250
Cyprodinil	107		P	55 - 145
Demeton	85.9		P	30 - 159
Diazinon	118		P	70 - 123
Difenoconazole	112		P	49 - 204
Dimethenamid	69.5		P	64 - 115
Dimethomorph	89.4		P	12 - 219
Disulfoton	80.3		P	44 - 125
Dithiopyr	92.7		P	64 - 115
EPTC	46.8		P	28 - 86.0
Ethion	86.8		P	33 - 125
Ethoprop	84.1		P	64 - 116
Etridiazole	50.6		P	34 - 91.0
Fenamiphos	85.0		P	12 - 127
Fenbuconazole	111		P	59 - 151
Fipronil	55.0		F	67 - 129
Fipronil Desulfinyl	72.4		P	65 - 127
Fipronil Sulfide	52.5		F	61 - 116
Fipronil Sulfone	70.1		P	55 - 117
Fluazifop-P-butyl	87.8		P	62 - 127
Fludioxonil	86.3		P	62 - 128
Flumioxazin	98.3		P	33 - 250
Flutolanil	89.7		P	56 - 127
Fluxapyroxad	104		P	45 - 128
Fonofos	81.6		P	62 - 111
Hexazinone	87.2		P	46 - 139
Imazalil	74.8		P	38 - 142
Iprodione	134		P	47 - 135
Loratadine	113		P	10 - 244
Malathion	95.7		P	61 - 139
Metalaxyl	89.4		P	10 - 119
Metolachlor	93.8		P	65 - 118
Metribuzin	89.5		P	51 - 250
Mevinphos	73.2		P	53 - 121
Molinate	61.5		P	42 - 96.0
Myclobutanil	98.2		P	55 - 128
Naled	83.8		P	10 - 98.0
Napropamide	67.8		P	49 - 121
Norflurazon	82.8		P	61 - 126
Oxadiazon	77.1		P	59 - 116
Oxyfluorfen	98.5		P	64 - 137
Parathion Ethyl	74.6		P	70 - 112
Parathion Methyl	98.3		P	76 - 133
Pendimethalin	74.4		P	52 - 117
Phenytoin	25.2		P	10 - 199
Phorate	82.0		P	48 - 121
Prodiamine	57.5		P	26 - 142
Prometon	77.1		P	43 - 123

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P419392

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Prometryn	109		P	66 - 127
Pronamide	117		P	75 - 121
Propanil	74.4		P	45 - 150
Propargite	120		P	42 - 208
Propiconazole	92.8		P	60 - 125
Pyraflufen Ethyl	92.4		P	70 - 138
Pyridaben	124		P	35 - 245
Pyriproxyfen	121		P	30 - 149
Simazine	83.8		P	72 - 125
Stirophos	80.5		P	29 - 164
Sulfentrazone	96.7		P	21 - 139
Tebuconazole	82.8		P	10 - 115
Terbufos	111		P	60 - 123
Terbuthylazine	81.3		P	72 - 115
Thiobencarb	76.5		P	31 - 139
Triadimefon	78.5		P	65 - 116

Reference Method: EPA 8270E
Batch ID: P420385

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	90.4		P	42 - 162
Avobenzone	96.4		P	40 - 203
Dechlorane Plus	123		P	47 - 182
Octinoxate	78.2		P	26 - 166
Oxybenzone	65.1		P	49 - 135
PBDE-47	71.0		P	41 - 148
PBDE-99	85.5		P	38 - 147
Tri-o-cresyl Phosphate	76.9		P	49 - 150

Reference Method: EPA 8276
Batch ID: P419360

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	80.8		P	61 - 116
Toxaphene	78.4		P	48 - 124

Reference Method: EPA 8321B
Batch ID: P419277

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	96.4		P	40 - 150
2,4,5-T	75.1		P	40 - 150
Acetaminophen	71.7		P	30 - 150
Acetamiprid	79.0		P	40 - 150
Afidopyropen	37.9		P	30 - 150
Bentazon	116		P	30 - 150
Benzovindiflupyr	82.9		P	40 - 150
Carbamazepine	97.1		P	40 - 150
Clothianidin	97.3		P	40 - 150
Dinotefuran	84.8		P	40 - 150
Diuron	101		P	40 - 150

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P419277

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fenuron	104		P	40 - 150
Fluridone	82.3		P	40 - 150
Hydrocodone	94.0		P	40 - 150
Ibuprofen	111		P	40 - 150
Imazapyr	97.0		P	40 - 150
Imidacloprid	99.4		P	40 - 150
Linuron	89.1		P	40 - 150
Mandestrobin	86.4		P	40 - 150
MCPP	102		P	40 - 150
Naproxen	129		P	40 - 150
Primidone	86.9		P	40 - 150
Pyraclostrobin	70.4		P	40 - 150
Silvex	65.6		P	40 - 150
Thiamethoxam	89.4		P	40 - 150
Tolfenpyrad	34.0		P	30 - 150
Triclopyr	72.9		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P419298

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	100		P	40 - 150
AMPA	97.9		P	40 - 150
Endothall	85.2		P	40 - 150
Glufosinate	81.4		P	40 - 150
Glyphosate	107		P	40 - 150
Sucralose	94.4		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P419602

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.7		P	94 - 106

Reference Method: SM 2320 B-2011
Batch ID: P419620

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.9		P	94 - 106

Reference Method: SM 2320 B-2011
Batch ID: P419884

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

Reference Method: SM 4500-F- C-2011
Batch ID: P419605

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.8		P	96 - 104

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 4500-F- C-2011
Batch ID: P419606

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	100		P	96 - 104

Reference Method: SM 4500-F- C-2011
Batch ID: P419622

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.6		P	96 - 104

Reference Method: SM 5310 B-2011
Batch ID: P419491

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

Reference Method: SM 5310 B-2011
Batch ID: P419639

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.8		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P419339

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2353876	Iron	106	108	P/P	70 - 130
2353876	Tin	99.5	91.1	P/P	70 - 130
2353876	Titanium	106	104	P/P	70 - 130
2353876	Vanadium	104	102	P/P	70 - 130
2353876	Zinc	97.5	97.4	P/P	70 - 130

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P419409

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2355246	Calcium	109	85.0	P/P	80 - 120
2355246	Iron	108	106	P/P	80 - 120
2355246	Magnesium	107	102	P/P	80 - 120
2355246	Strontium	103	101	P/P	80 - 120
2355246	Tin	107	104	P/P	80 - 120
2355246	Titanium	105	102	P/P	80 - 120
2355246	Vanadium	104	100	P/P	80 - 120
2355246	Zinc	101	98.9	P/P	80 - 120
2355260	Calcium	107		P	80 - 120
2355260	Iron	107		P	80 - 120
2355260	Magnesium	108		P	80 - 120
2355260	Strontium	103		P	80 - 120
2355260	Tin	106		P	80 - 120
2355260	Titanium	102		P	80 - 120
2355260	Vanadium	101		P	80 - 120
2355260	Zinc	101		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P419339

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2353076	Aluminum	104	106	P/P	80 - 120
2353076	Antimony	100	99.4	P/P	80 - 120
2353076	Arsenic	113	112	P/P	80 - 120
2353076	Beryllium	98.4	98.0	P/P	80 - 120
2353076	Cadmium	95.1	93.5	P/P	80 - 120
2353076	Chromium	97.2	95.9	P/P	80 - 120
2353076	Cobalt	105	106	P/P	80 - 120
2353076	Copper	105	102	P/P	80 - 120
2353076	Lead	98.1	97.3	P/P	80 - 120
2353076	Manganese	93.6	93.9	P/P	80 - 120
2353076	Molybdenum	110	110	P/P	80 - 120
2353076	Nickel	107	109	P/P	80 - 120
2353076	Selenium	99.0	101	P/P	80 - 120
2353076	Thallium	105	105	P/P	80 - 120
2353876	Silver	75.3	76.9	P/P	70 - 130

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P419409

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2355246	Antimony	104	102	P/P	80 - 120

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P419409

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2355246	Arsenic	102	101	P/P	80 - 120
2355246	Beryllium	98.4	96.8	P/P	80 - 120
2355246	Cadmium	99.8	98.3	P/P	80 - 120
2355246	Chromium	106	105	P/P	80 - 120
2355246	Cobalt	97.3	95.0	P/P	80 - 120
2355246	Copper	98.5	97.2	P/P	80 - 120
2355246	Lead	93.8	92.8	P/P	80 - 120
2355246	Manganese	104	100	P/P	80 - 120
2355246	Molybdenum	100	98.0	P/P	80 - 120
2355246	Nickel	101	99.0	P/P	80 - 120
2355246	Selenium	102	99.2	P/P	80 - 120
2355246	Silver	88.3	86.8	P/P	80 - 120
2355246	Thallium	99.5	99.8	P/P	80 - 120
2355260	Antimony	107		P	80 - 120
2355260	Arsenic	104		P	80 - 120
2355260	Beryllium	98.4		P	80 - 120
2355260	Cadmium	103		P	80 - 120
2355260	Chromium	106		P	80 - 120
2355260	Cobalt	98.7		P	80 - 120
2355260	Copper	102		P	80 - 120
2355260	Lead	95.5		P	80 - 120
2355260	Manganese	104		P	80 - 120
2355260	Molybdenum	101		P	80 - 120
2355260	Nickel	101		P	80 - 120
2355260	Selenium	104		P	80 - 120
2355260	Silver	90.8		P	80 - 120
2355260	Thallium	101		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P419671

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2354242	Aluminum	97.8	98.9	P/P	80 - 120
2355245	Aluminum	99.1		P	80 - 120

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P419361

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2354888	Ammonia-N	105	105	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P419364

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2354989	Ammonia-N	103	108	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P419627

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2355025	Ammonia-N	94.6	96.2	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P419393

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2355027	Kjeldahl Nitrogen	99.2	98.3	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P419516

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2354650	Kjeldahl Nitrogen	103	99.1	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P419517

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2355037	Kjeldahl Nitrogen	105	108	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P419541

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2355037	NO2NO3-N	98.5	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P420297

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2355286	NO2NO3-N	101	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P419466

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2354637	Total-P	108	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P419535

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2354941	Total-P	103	105	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P419360

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2355149	PCB-1016	69.6	69.1	P/P	46 - 111
2355149	PCB-1260	55.7	56.4	P/P	45 - 114
2355301	Aldrin	75.3	74.2	P/P	20 - 82.0
2355301	Alpha-BHC	91.7	94.9	P/P	71 - 109
2355301	Alpha-Chlordane	90.2	88.2	P/P	42 - 106
2355301	Beta-BHC	84.0	106	P/P	69 - 180
2355301	Beta-Cyfluthrin	89.6	91.2	P/P	18 - 175
2355301	Bifenthrin	97.2	80.1	P/P	21 - 128
2355301	Carbophenothion	75.9	75.2	P/P	10 - 126
2355301	Chlorothalonil	126	145	P/P	10 - 300

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P419360

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2355301	Cis-Nonachlor	67.2	65.6	P/P	34 - 106
2355301	Cypermethrin	67.2	69.5	P/P	22 - 158
2355301	Dacthal	89.3	91.7	P/P	54 - 116
2355301	DDD-p,p'	51.2	50.8	P/P	34 - 107
2355301	DDE-p,p'	85.7	86.2	P/P	33 - 110
2355301	DDT-p,p'	82.8	83.4	P/P	50 - 122
2355301	Delta-BHC	115	132	P/P	77 - 193
2355301	Deltamethrin	117	116	P/P	10 - 195
2355301	Dichlobenil	57.2	63.0	P/P	25 - 113
2355301	Dicofol	49.2	46.8	P/P	38 - 247
2355301	Dieldrin	64.1	62.2	P/P	45 - 118
2355301	Endosulfan I	94.4	92.2	P/P	51 - 106
2355301	Endosulfan II	81.8	83.1	P/P	37 - 122
2355301	Endosulfan Sulfate	78.7	92.4	P/P	43 - 132
2355301	Endrin	92.0	89.2	P/P	29 - 101
2355301	Endrin Aldehyde	45.5	52.2	P/P	19 - 110
2355301	Endrin Ketone	80.1	84.3	P/P	60 - 140
2355301	Esfenvalerate	101	106	P/P	26 - 199
2355301	Ethalfluralin	72.8	71.5	P/P	45 - 99.0
2355301	Fenpropathrin	80.4	75.4	P/P	35 - 120
2355301	Gamma-BHC	94.4	101	P/P	63 - 128
2355301	Gamma-Chlordane	79.6	81.2	P/P	40 - 104
2355301	Heptachlor	54.4	52.4	P/P	36 - 97.0
2355301	Heptachlor Epoxide	87.8	85.7	P/P	49 - 184
2355301	Hexachlorobenzene	78.6	75.8	P/P	39 - 96.0
2355301	Kepone	69.9	131	P/P	10 - 217
2355301	Lambda-Cyhalothrin	66.4	63.9	P/P	21 - 193
2355301	Methoprene	99.4	83.5	P/P	20 - 106
2355301	Methoxychlor	90.9	92.6	P/P	53 - 118
2355301	MGK-264	86.1	91.8	P/P	40 - 118
2355301	Mirex	62.3	58.9	P/P	26 - 92.0
2355301	Oxychlordane	78.8	80.1	P/P	44 - 99.0
2355301	Permethrin	70.8	65.3	P/P	33 - 182
2355301	Phenothrin	57.5	58.2	P/P	10 - 129
2355301	Piperonyl Butoxide	128	126	P/P	10 - 211
2355301	Prallethrin	72.9	77.8	P/P	24 - 113
2355301	Tau-Fluvalinate	79.8	85.8	P/P	14 - 149
2355301	Tetramethrin	103	102	P/P	17 - 151
2355301	Trans-Nonachlor	88.8	88.7	P/P	42 - 102
2355301	Triclosan Methyl	86.3	85.5	P/P	48 - 108
2355301	Trifluralin	74.6	73.3	P/P	47 - 96.0

Reference Method: EPA 8270E
Batch ID: P419392

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2355923	Acetochlor	105	97.1	P/P	65 - 124
2355923	Alachlor	120	112	P/P	61 - 121
2355923	Ametryn	103	118	P/P	52 - 216
2355923	Atrazine Desethyl	38.5	37.8	P/P	15 - 160
2355923	Azinphos Methyl	142	153	P/P	40 - 292
2355923	Azoxystrobin	220	217	P/P	12 - 242

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P419392

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2355923	Bromacil	90.1	79.1	P/P	54 - 167
2355923	Butylate	20.4	23.4	P/P	14 - 94.0
2355923	Carbophenothion	99.6	94.6	P/P	49 - 122
2355923	Carfentrazone Ethyl	136	115	P/P	53 - 138
2355923	Chlorfenapyr	90.4	77.6	P/P	50 - 150
2355923	Chlorpyrifos Ethyl	115	94.0	P/P	52 - 122
2355923	Chlorpyrifos Methyl	101	88.3	P/P	66 - 117
2355923	Coumaphos	146	126	P/P	50 - 220
2355923	Cyanazine	220	217	P/P	43 - 245
2355923	Cyprodinil	97.1	75.5	P/P	50 - 150
2355923	Demeton	67.4	65.2	P/P	43 - 188
2355923	Diazinon	84.1	79.9	P/P	69 - 131
2355923	Difenoconazole	136	146	P/P	34 - 231
2355923	Dimethenamid	103	93.8	P/P	55 - 118
2355923	Dimethomorph	119	142	P/P	50 - 150
2355923	Disulfoton	73.5	62.9	P/P	38 - 141
2355923	Dithiopyr	111	97.6	P/P	42 - 116
2355923	EPTC	26.8	26.6	P/P	18 - 85.0
2355923	Ethion	97.3	84.7	P/P	10 - 131
2355923	Ethoprop	116	105	P/P	65 - 129
2355923	Etridiazole	81.6	82.8	P/P	50 - 150
2355923	Fenamiphos	114	104	P/P	31 - 137
2355923	Fenbuconazole	156	158	P/P	57 - 160
2355923	Fipronil Desulfinyl	120	102	P/P	57 - 131
2355923	Fluazifop-P-butyl	100	87.5	P/P	54 - 133
2355923	Fludioxonil	91.9	106	P/P	58 - 127
2355923	Flumioxazin	149	102	P/P	33 - 300
2355923	Flutolanil	89.1	81.6	P/P	42 - 130
2355923	Fluxapyroxad	84.1	54.9	P/P	23 - 141
2355923	Fonofos	75.3	63.9	P/P	58 - 119
2355923	Imazalil	202	167	P/P	48 - 283
2355923	Iprodione	91.5	85.9	P/P	38 - 140
2355923	Malathion	89.0	86.1	P/P	40 - 137
2355923	Metalaxyl	52.3	52.5	P/P	21 - 129
2355923	Metolachlor	60.2	60.0	P/P	55 - 122
2355923	Metribuzin	132	132	P/P	38 - 187
2355923	Mevinphos	107	90.8	P/P	54 - 134
2355923	Molinate	45.6	42.9	P/P	41 - 97.0
2355923	Myclobutanil	98.8	87.0	P/P	56 - 125
2355923	Naled	91.4	89.5	P/P	10 - 108
2355923	Napropamide	85.9	63.8	P/P	50 - 150
2355923	Norflurazon	122	104	P/P	32 - 122
2355923	Oxadiazon	50.4	45.9	P/P	40 - 119
2355923	Oxyfluorfen	164	143	F/P	61 - 153
2355923	Parathion Ethyl	99.6	92.4	P/P	59 - 130
2355923	Parathion Methyl	113	112	P/P	65 - 155
2355923	Pendimethalin	91.2	86.4	P/P	49 - 138
2355923	Phenytoin	141	41.3	P/F	50 - 200
2355923	Phorate	110	104	P/P	54 - 161
2355923	Prodiamine	55.2	61.0	P/P	33 - 161
2355923	Prometon	78.1	80.6	P/P	48 - 140
2355923	Prometryn	62.4	54.7	P/F	55 - 134

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P419392

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2355923	Pronamide	73.1	68.6	P/P	66 - 137
2355923	Propanil	121	120	P/P	50 - 150
2355923	Propargite	199	174	P/P	50 - 200
2355923	Propiconazole	141	141	P/P	36 - 150
2355923	Pyraflufen Ethyl	139	125	P/P	50 - 150
2355923	Pyridaben	189	175	P/P	50 - 200
2355923	Pyriproxyfen	94.0	92.1	P/P	10 - 165
2355923	Simazine	118	108	P/P	57 - 145
2355923	Stirophos	100	57.4	P/P	50 - 150
2355923	Sulfentrazone	80.1	57.7	P/P	34 - 140
2355923	Terbufos	129	121	P/P	59 - 138
2355923	Terbuthylazine	115	116	P/P	68 - 119
2355923	Thiobencarb	121	107	P/P	50 - 150
2355923	Triadimefon	115	110	P/P	50 - 150

Reference Method: EPA 8270E
Batch ID: P420385

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2359926	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	78.4	64.4	P/P	26 - 165
2359926	Avobenzone	58.3	55.8	P/P	37 - 178
2359926	Dechlorane Plus	110	86.5	P/P	50 - 150
2359926	Octinoxate	41.8	28.0	P/P	21 - 159
2359926	Oxybenzone	64.6	51.3	P/P	41 - 142
2359926	PBDE-47	60.6	48.9	P/P	27 - 144
2359926	PBDE-99	72.5	59.3	P/P	18 - 150
2359926	Tri-o-cresyl Phosphate	68.6	55.5	P/P	31 - 144

Reference Method: EPA 8276
Batch ID: P419360

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2355149	Chlordane	67.0	66.3	P/P	53 - 126
2355149	Toxaphene	75.7	74.5	P/P	56 - 211

Reference Method: EPA 8321B
Batch ID: P419277

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2354901	2,4-D	86.1	96.6	P/P	40 - 150
2354901	2,4,5-T	81.1	92.7	P/P	40 - 150
2354901	Acetaminophen	54.7	48.6	P/P	30 - 150
2354901	Acetamiprid	68.7	71.1	P/P	40 - 150
2354901	Afidopyropen	34.7	38.1	P/P	30 - 150
2354901	Bentazon	99.5	111	P/P	30 - 150
2354901	Benzovindiflupyr	71.6	67.5	P/P	40 - 150
2354901	Carbamazepine	87.7	88.1	P/P	40 - 150
2354901	Clothianidin	71.5	67.8	P/P	40 - 150
2354901	Dinotefuran	75.2	73.0	P/P	40 - 150
2354901	Diuron	91.4	95.1	P/P	40 - 150
2354901	Fenuron	85.0	93.0	P/P	40 - 150
2354901	Fluridone	81.3	86.3	P/P	40 - 150

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P419277

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2354901	Hydrocodone	88.5	88.1	P/P	40 - 150
2354901	Ibuprofen	91.8	87.1	P/P	40 - 150
2354901	Imazapyr	89.1	92.7	P/P	40 - 150
2354901	Imidacloprid	77.6	74.4	P/P	40 - 150
2354901	Linuron	96.6	99.8	P/P	40 - 150
2354901	Mandestrobin	83.4	86.7	P/P	40 - 150
2354901	MCPP	94.9	98.8	P/P	40 - 150
2354901	Naproxen	92.4	152	P/F	40 - 150
2354901	Primidone	58.1	44.9	P/P	40 - 150
2354901	Pyraclostrobin	72.0	75.8	P/P	40 - 150
2354901	Silvex	75.5	83.5	P/P	40 - 150
2354901	Thiamethoxam	93.2	82.2	P/P	40 - 150
2354901	Tolfenpyrad	38.0	35.6	P/P	30 - 150
2354901	Triclopyr	66.3	80.1	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P419298

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2355147	Acesulfame K	77.2	75.8	P/P	40 - 150
2355147	AMPA	72.9	77.4	P/P	40 - 150
2355147	Endothall	125	120	P/P	40 - 150
2355147	Glufosinate	71.0	67.1	P/P	40 - 150
2355147	Glyphosate	98.0	106	P/P	40 - 150
2355147	Sucralose	95.3	93.2	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P419605

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2354066	Fluoride	100	100	P/P	94 - 104

Reference Method: SM 4500-F- C-2011
Batch ID: P419606

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2354916	Fluoride	97.6	97.6	P/P	94 - 104

Reference Method: SM 4500-F- C-2011
Batch ID: P419622

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2355112	Fluoride	99.7	98.5	P/P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P419491

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2354958	Organic Carbon	96.6	97.0	P/P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P419639

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2355027	Organic Carbon	88.5	89.8	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P419324

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2354819	Turbidity	5.79	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P419325

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2355026	Turbidity	8.53	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P419339

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353876	Calcium	0.260	Spike	P	0 - 20
2353876	Iron	1.13	Spike	P	0 - 20
2353876	Magnesium	4.40	Spike	P	0 - 20
2353876	Strontium	1.51	Spike	P	0 - 20
2353876	Tin	8.87	Spike	P	0 - 20
2353876	Titanium	1.80	Spike	P	0 - 20
2353876	Vanadium	2.02	Spike	P	0 - 20
2353876	Zinc	0.107	Spike	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P419409

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2355246	Calcium	4.90	Spike	P	0 - 20
2355246	Iron	2.43	Spike	P	0 - 20
2355246	Magnesium	2.84	Spike	P	0 - 20
2355246	Strontium	2.08	Spike	P	0 - 20
2355246	Tin	2.23	Spike	P	0 - 20
2355246	Titanium	2.84	Spike	P	0 - 20
2355246	Vanadium	3.33	Spike	P	0 - 20
2355246	Zinc	2.52	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P419339

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353076	Aluminum	1.96	Spike	P	0 - 20
2353076	Antimony	1.06	Spike	P	0 - 20
2353076	Arsenic	0.551	Spike	P	0 - 20
2353076	Beryllium	0.448	Spike	P	0 - 20
2353076	Cadmium	1.64	Spike	P	0 - 20
2353076	Chromium	1.40	Spike	P	0 - 20
2353076	Cobalt	0.295	Spike	P	0 - 20
2353076	Copper	2.87	Spike	P	0 - 20
2353076	Lead	0.774	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P419339

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353076	Manganese	0.132	Spike	P	0 - 20
2353076	Molybdenum	0.102	Spike	P	0 - 20
2353076	Nickel	1.33	Spike	P	0 - 20
2353076	Selenium	2.35	Spike	P	0 - 20
2353076	Thallium	0.0587	Spike	P	0 - 20
2353876	Silver	2.02	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P419409

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2355246	Antimony	2.11	Spike	P	0 - 20
2355246	Arsenic	1.45	Spike	P	0 - 20
2355246	Beryllium	1.58	Spike	P	0 - 20
2355246	Cadmium	1.50	Spike	P	0 - 20
2355246	Chromium	0.819	Spike	P	0 - 20
2355246	Cobalt	2.31	Spike	P	0 - 20
2355246	Copper	1.37	Spike	P	0 - 20
2355246	Lead	1.11	Spike	P	0 - 20
2355246	Manganese	1.14	Spike	P	0 - 20
2355246	Molybdenum	2.07	Spike	P	0 - 20
2355246	Nickel	1.95	Spike	P	0 - 20
2355246	Selenium	2.79	Spike	P	0 - 20
2355246	Silver	1.71	Spike	P	0 - 20
2355246	Thallium	0.302	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P419671

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2354242	Aluminum	0.856	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P419361

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2354888	Ammonia-N	0.0	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P419364

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2354989	Ammonia-N	3.83	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P419627

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2355025	Ammonia-N	1.39	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P419393

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2355027	Kjeldahl Nitrogen	0.646	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P419516

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2354650	Kjeldahl Nitrogen	2.86	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P419517

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2355037	Kjeldahl Nitrogen	1.89	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P419541

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2355037	NO2NO3-N	2.01	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P420297

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2355286	NO2NO3-N	2.34	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P419466

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2354637	Total-P	1.65	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P419535

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2354941	Total-P	1.84	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P419360

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2355149	PCB-1016	0.723	Spike	P	0 - 32
2355149	PCB-1260	1.30	Spike	P	0 - 31
2355301	Aldrin	1.46	Spike	P	0 - 41
2355301	Alpha-BHC	3.48	Spike	P	0 - 25
2355301	Alpha-Chlordane	2.28	Spike	P	0 - 33
2355301	Beta-BHC	23.6	Spike	P	0 - 36
2355301	Beta-Cyfluthrin	1.75	Spike	P	0 - 42
2355301	Bifenthrin	19.3	Spike	P	0 - 53
2355301	Carbophenothion	0.944	Spike	P	0 - 30
2355301	Chlorothalonil	14.2	Spike	P	0 - 71
2355301	Cis-Nonachlor	2.33	Spike	P	0 - 29
2355301	Cypermethrin	3.30	Spike	P	0 - 40
2355301	Dacthal	2.64	Spike	P	0 - 26
2355301	DDD-p,p'	0.800	Spike	P	0 - 39
2355301	DDE-p,p'	0.555	Spike	P	0 - 33
2355301	DDT-p,p'	0.702	Spike	P	0 - 40
2355301	Delta-BHC	14.0	Spike	P	0 - 37
2355301	Deltamethrin	0.924	Spike	P	0 - 100
2355301	Dichlobenil	9.57	Spike	P	0 - 40
2355301	Dicofol	4.97	Spike	P	0 - 31
2355301	Dieldrin	3.08	Spike	P	0 - 27
2355301	Endosulfan I	2.44	Spike	P	0 - 23
2355301	Endosulfan II	1.52	Spike	P	0 - 28
2355301	Endosulfan Sulfate	16.0	Spike	P	0 - 38
2355301	Endrin	3.02	Spike	P	0 - 63
2355301	Endrin Aldehyde	13.6	Spike	P	0 - 60
2355301	Endrin Ketone	5.10	Spike	P	0 - 37
2355301	Esfenvalerate	4.77	Spike	P	0 - 52
2355301	Ethalfluralin	1.76	Spike	P	0 - 23
2355301	Fenpropathrin	6.41	Spike	P	0 - 32
2355301	Gamma-BHC	6.87	Spike	P	0 - 17
2355301	Gamma-Chlordane	1.80	Spike	P	0 - 40
2355301	Heptachlor	3.75	Spike	P	0 - 29
2355301	Heptachlor Epoxide	2.45	Spike	P	0 - 25
2355301	Hexachlorobenzene	3.70	Spike	P	0 - 36
2355301	Kepone	60.9	Spike	P	0 - 93
2355301	Lambda-Cyhalothrin	3.72	Spike	P	0 - 55
2355301	Methoprene	17.5	Spike	P	0 - 53
2355301	Methoxychlor	1.63	Spike	P	0 - 29
2355301	MGK-264	6.37	Spike	P	0 - 35
2355301	Mirex	5.47	Spike	P	0 - 46
2355301	Oxychlordane	1.60	Spike	P	0 - 29
2355301	Permethrin	8.01	Spike	P	0 - 44
2355301	Phenothrin	1.08	Spike	P	0 - 56
2355301	Piperonyl Butoxide	0.895	Spike	P	0 - 100
2355301	Prallethrin	6.48	Spike	P	0 - 42
2355301	Tau-Fluvalinate	7.23	Spike	P	0 - 54
2355301	Tetramethrin	0.982	Spike	P	0 - 51
2355301	Trans-Nonachlor	0.162	Spike	P	0 - 37
2355301	Triclosan Methyl	0.962	Spike	P	0 - 31
2355301	Trifluralin	1.88	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P419392

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2355923	Acetochlor	8.11	Spike	P	0 - 27
2355923	Alachlor	7.34	Spike	P	0 - 27
2355923	Ametryn	13.5	Spike	P	0 - 34
2355923	Atrazine	0.258	Spike	P	0 - 41
2355923	Atrazine Desethyl	1.78	Spike	P	0 - 38
2355923	Azinphos Methyl	7.47	Spike	P	0 - 62
2355923	Azoxystrobin	1.16	Spike	P	0 - 32
2355923	Bromacil	13.0	Spike	P	0 - 30
2355923	Butylate	13.7	Spike	P	0 - 59
2355923	Caffeine	3.21	Spike	P	0 - 60
2355923	Carbophenothion	5.14	Spike	P	0 - 25
2355923	Carfentrazone Ethyl	16.7	Spike	P	0 - 26
2355923	Chlorfenapyr	12.0	Spike	P	0 - 30
2355923	Chlorpyrifos Ethyl	20.3	Spike	P	0 - 27
2355923	Chlorpyrifos Methyl	13.0	Spike	P	0 - 26
2355923	Coumaphos	14.8	Spike	P	0 - 30
2355923	Cyanazine	1.37	Spike	P	0 - 58
2355923	Cyprodinil	25.1	Spike	P	0 - 30
2355923	Demeton	3.35	Spike	P	0 - 25
2355923	Diazinon	5.19	Spike	P	0 - 29
2355923	Difenoconazole	6.73	Spike	P	0 - 25
2355923	Dimethenamid	9.76	Spike	P	0 - 30
2355923	Dimethomorph	17.6	Spike	P	0 - 30
2355923	Disulfoton	15.5	Spike	P	0 - 33
2355923	Dithiopyr	10.4	Spike	P	0 - 22
2355923	EPTC	0.938	Spike	P	0 - 38
2355923	Ethion	13.9	Spike	P	0 - 79
2355923	Ethoprop	9.69	Spike	P	0 - 23
2355923	Etridiazole	1.45	Spike	P	0 - 30
2355923	Fenamiphos	9.43	Spike	P	0 - 58
2355923	Fenbuconazole	1.38	Spike	P	0 - 37
2355923	Fipronil	4.77	Spike	P	0 - 33
2355923	Fipronil Desulfinyl	13.4	Spike	P	0 - 26
2355923	Fipronil Sulfide	1.35	Spike	P	0 - 37
2355923	Fipronil Sulfone	2.49	Spike	P	0 - 50
2355923	Fluazifop-P-butyl	13.5	Spike	P	0 - 24
2355923	Fludioxonil	10.3	Spike	P	0 - 26
2355923	Flumioxazin	36.9	Spike	P	0 - 37
2355923	Flutolanil	8.50	Spike	P	0 - 26
2355923	Fluxapyroxad	39.9	Spike	F	0 - 34
2355923	Fonofos	16.5	Spike	P	0 - 27
2355923	Hexazinone	9.03	Spike	P	0 - 36
2355923	Imazalil	19.3	Spike	P	0 - 65
2355923	Iprodione	6.30	Spike	P	0 - 33
2355923	Loratadine	27.8	Spike	P	0 - 30
2355923	Malathion	3.25	Spike	P	0 - 44
2355923	Metalaxyl	0.368	Spike	P	0 - 38
2355923	Metolachlor	0.337	Spike	P	0 - 36
2355923	Metribuzin	0.145	Spike	P	0 - 63
2355923	Mevinphos	16.3	Spike	P	0 - 26
2355923	Molinate	6.14	Spike	P	0 - 40

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P419392

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2355923	Myclobutanil	11.8	Spike	P	0 - 21
2355923	Naled	2.04	Spike	P	0 - 26
2355923	Napropamide	29.6	Spike	P	0 - 30
2355923	Norflurazon	15.9	Spike	P	0 - 24
2355923	Oxadiazon	9.39	Spike	P	0 - 27
2355923	Oxyfluorfen	13.4	Spike	P	0 - 24
2355923	Parathion Ethyl	7.48	Spike	P	0 - 28
2355923	Parathion Methyl	1.32	Spike	P	0 - 27
2355923	Pendimethalin	5.45	Spike	P	0 - 31
2355923	Phenytoin	60.3	Spike	F	0 - 30
2355923	Phorate	5.02	Spike	P	0 - 27
2355923	Prodiamine	9.88	Spike	P	0 - 52
2355923	Prometon	3.24	Spike	P	0 - 31
2355923	Prometryn	13.2	Spike	P	0 - 28
2355923	Pronamide	6.41	Spike	P	0 - 26
2355923	Propanil	0.850	Spike	P	0 - 30
2355923	Propargite	12.9	Spike	P	0 - 30
2355923	Propiconazole	0.293	Spike	P	0 - 31
2355923	Pyraflufen Ethyl	10.2	Spike	P	0 - 30
2355923	Pyridaben	7.45	Spike	P	0 - 30
2355923	Pyriproxyfen	2.01	Spike	P	0 - 50
2355923	Simazine	8.52	Spike	P	0 - 29
2355923	Stirophos	54.4	Spike	F	0 - 30
2355923	Sulfentrazone	18.6	Spike	P	0 - 33
2355923	Tebuconazole	29.1	Spike	P	0 - 44
2355923	Terbufos	5.97	Spike	P	0 - 29
2355923	Terbuthylazine	1.52	Spike	P	0 - 27
2355923	Thiobencarb	12.2	Spike	P	0 - 30
2355923	Triadimefon	4.60	Spike	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P420385

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2359926	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	19.6	Spike	P	0 - 37
2359926	Avobenzone	4.42	Spike	P	0 - 36
2359926	Dechlorane Plus	23.5	Spike	P	0 - 30
2359926	Octinoxate	21.8	Spike	P	0 - 45
2359926	Oxybenzone	23.1	Spike	P	0 - 46
2359926	PBDE-47	21.4	Spike	P	0 - 36
2359926	PBDE-99	20.0	Spike	P	0 - 40
2359926	Tri-o-cresyl Phosphate	21.2	Spike	P	0 - 33

Reference Method: EPA 8276
Batch ID: P419360

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2355149	Chlordane	1.04	Spike	P	0 - 25
2355149	Toxaphene	1.51	Spike	P	0 - 26

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P419277

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2354901	2,4-D	11.4	Spike	P	0 - 30
2354901	2,4,5-T	13.3	Spike	P	0 - 30
2354901	Acetaminophen	11.9	Spike	P	0 - 30
2354901	Acetamiprid	3.53	Spike	P	0 - 30
2354901	Afidopyropen	9.19	Spike	P	0 - 30
2354901	Bentazon	9.74	Spike	P	0 - 30
2354901	Benzovindiflupyr	5.97	Spike	P	0 - 30
2354901	Carbamazepine	0.477	Spike	P	0 - 30
2354901	Clothianidin	5.31	Spike	P	0 - 30
2354901	Dinotefuran	2.97	Spike	P	0 - 30
2354901	Diuron	3.96	Spike	P	0 - 30
2354901	Fenuron	8.93	Spike	P	0 - 30
2354901	Fluridone	6.01	Spike	P	0 - 30
2354901	Hydrocodone	0.505	Spike	P	0 - 30
2354901	Ibuprofen	5.20	Spike	P	0 - 30
2354901	Imazapyr	3.61	Spike	P	0 - 30
2354901	Imidacloprid	4.27	Spike	P	0 - 30
2354901	Linuron	3.33	Spike	P	0 - 30
2354901	Mandestrobin	3.81	Spike	P	0 - 30
2354901	MCPP	4.07	Spike	P	0 - 30
2354901	Naproxen	48.7	Spike	F	0 - 30
2354901	Primidone	25.6	Spike	P	0 - 30
2354901	Pyraclostrobin	5.18	Spike	P	0 - 30
2354901	Silvex	10.0	Spike	P	0 - 30
2354901	Thiamethoxam	12.5	Spike	P	0 - 30
2354901	Tolfenpyrad	6.67	Spike	P	0 - 30
2354901	Triclopyr	18.9	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P419298

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2355147	Acesulfame K	1.94	Spike	P	0 - 30
2355147	AMPA	4.72	Spike	P	0 - 30
2355147	Endothall	4.22	Spike	P	0 - 30
2355147	Glufosinate	5.58	Spike	P	0 - 30
2355147	Glyphosate	5.26	Spike	P	0 - 30
2355147	Sucralose	2.23	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P419602

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2354066	Total Alkalinity	0.671	Sample	P	0 - 3.8

Quality Assurance Report
Precision

Reference Method: SM 2320 B-2011
Batch ID: P419620

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2355112	Total Alkalinity	1.74	Sample	P	0 - 3.8

Reference Method: SM 2320 B-2011
Batch ID: P419884

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2355026	Total Alkalinity	0.0450	Sample	P	0 - 3.8

Reference Method: SM 4500-F- C-2011
Batch ID: P419605

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2354066	Fluoride	0.0	Spike	P	0 - 1.6

Reference Method: SM 4500-F- C-2011
Batch ID: P419606

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2354916	Fluoride	0.0	Spike	P	0 - 1.6

Reference Method: SM 4500-F- C-2011
Batch ID: P419622

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2355112	Fluoride	0.953	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P419491

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2354958	Organic Carbon	0.248	Spike	P	0 - 20

Reference Method: SM 5310 B-2011
Batch ID: P419639

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2355027	Organic Carbon	1.14	Spike	P	0 - 20

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

Quality Assurance Report
Surrogates

Lab Sample ID: 2355047
Field Sample ID: G5SE0079

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	77.5	P	29 - 130
EPA 8270E	Decachlorobiphenyl	63.1	P	30 - 118
EPA 8270E	Tetrachloro-m-xylene	43.4	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	54.4	P	30 - 97.0
EPA 8276	Decachlorobiphenyl	61.3	P	30 - 101
EPA 8276	PCNB	80.5	P	48 - 121

Lab Sample ID: 2355048
Field Sample ID: G5SE0079

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	124	P	20 - 200
EPA 8270E	Simazine-d10	126	P	71 - 140
EPA 8270E	Terbufos-d10	109	P	62 - 131
EPA 8270E	Terphenyl-d14	75.4	P	52 - 137
EPA 8270E	Terphenyl-d14	82.6	P	52 - 141

Lab Sample ID: 2355049
Field Sample ID: G5SE0073

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	73.1	P	29 - 130
EPA 8270E	Decachlorobiphenyl	59.3	P	30 - 118
EPA 8270E	Tetrachloro-m-xylene	53.6	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	53.8	P	30 - 97.0
EPA 8276	Decachlorobiphenyl	58.1	P	30 - 101
EPA 8276	PCNB	78.1	P	48 - 121

Lab Sample ID: 2355054
Field Sample ID: G5SE0073

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	96.3	P	30 - 160
EPA 8321B	Acetaminophen-d4	47.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	84.4	P	30 - 160
EPA 8321B	Diuron-d6	99.1	P	30 - 160
EPA 8321B	Endothall-d6	65.2	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	81.9	P	30 - 160
EPA 8321B	Ibuprofen-d3	72.7	P	30 - 160
EPA 8321B	Primidone-d5	37.8	P	30 - 160
EPA 8321B	Sucralose-d6	88.4	P	30 - 160

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A114605
Included Lab Sample IDs: 2355054

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	110	114	P/P	50 - 150
2,4,5-T	124	117	P/P	50 - 150
Acetaminophen	80.4	87.8	P/P	60 - 160
Acetamiprid	101	104	P/P	50 - 150
Afidopyropen	147	147	P/P	50 - 150
Bentazon	113	106	P/P	50 - 160
Benzovindiflupyr	89.8	91.2	P/P	50 - 150
Carbamazepine	121	129	P/P	60 - 150
Clothianidin	128	120	P/P	60 - 150
Dinotefuran	81.7	106	P/P	50 - 150
Diuron	123	124	P/P	60 - 160
Fenuron	96.2	96.9	P/P	60 - 150
Fluridone	93.6	96.7	P/P	60 - 160
Hydrocodone	107	109	P/P	60 - 150
Ibuprofen	106	113	P/P	50 - 160
Imazapyr	83.9	95.5	P/P	50 - 150
Imidacloprid	110	99.6	P/P	60 - 150
Linuron	107	129	P/P	60 - 150
Mandestrobin	93.4	91.3	P/P	50 - 150
MCPP	99.1	104	P/P	50 - 150
Naproxen	138	125	P/P	50 - 160
Primidone	88.6	77.8	P/P	60 - 150
Pyraclostrobin	96.2	93.8	P/P	60 - 150
Silvex	91.1	91.6	P/P	50 - 150
Thiamethoxam	95.3	95.3	P/P	50 - 150
Tolfenpyrad	94.9	94.8	P/P	60 - 150
Triclopyr	99.3	99.1	P/P	50 - 150

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A114618
Included Lab Sample IDs: 2355022, 2355023, 2355026, 2355028

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

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A114639
Included Lab Sample IDs: 2355024, 2355029

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.0	97.4	P/P	90 - 110
Ammonia-N	98.7	97.0	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A114665
Included Lab Sample IDs: 2355055, 2355056

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	98.7	100	P/P	90 - 110
Antimony	98.9	97.9	P/P	90 - 110

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Reference Method: EPA 200.8 Rev. 5.4
Run ID: A114665
Included Lab Sample IDs: 2355055, 2355056

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	105	104	P/P	90 - 110
Beryllium	99.6	99.7	P/P	90 - 110
Cadmium	101	102	P/P	90 - 110
Chromium	104	104	P/P	90 - 110
Cobalt	100	101	P/P	90 - 110
Copper	104	105	P/P	90 - 110
Lead	90.9	91.6	P/P	90 - 110
Manganese	100	99.8	P/P	90 - 110
Molybdenum	99.6	99.2	P/P	90 - 110
Nickel	103	104	P/P	90 - 110
Selenium	104	98.9	P/P	90 - 110
Thallium	101	103	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A114684
Included Lab Sample IDs: 2355055, 2355056

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Silver	97.8	97.3	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A114691
Included Lab Sample IDs: 2355024, 2355027

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	95.9	94.5	P/P	90 - 110

Reference Method: SM 5310 B-2011
Run ID: A114693
Included Lab Sample IDs: 2355029

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.4	96.6	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A114704
Included Lab Sample IDs: 2355057

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Antimony	99.2	100	P/P	90 - 110
Arsenic	105	102	P/P	90 - 110
Beryllium	97.8	99.6	P/P	90 - 110
Cadmium	101	103	P/P	90 - 110
Chromium	103	104	P/P	90 - 110
Cobalt	101	97.8	P/P	90 - 110
Copper	105	101	P/P	90 - 110
Lead	90.6	90.7	P/P	90 - 110
Manganese	102	101	P/P	90 - 110
Molybdenum	99.1	98.0	P/P	90 - 110
Nickel	105	101	P/P	90 - 110
Selenium	104	103	P/P	90 - 110

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Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A114704
Included Lab Sample IDs: 2355057

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Silver	96.4	96.3	P/P	90 - 110
Thallium	101	102	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A114709
Included Lab Sample IDs: 2355054

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	95.7	105	P/P	60 - 160
Sucralose	93.0	92.3	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A114710
Included Lab Sample IDs: 2355054

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	102	96.9	P/P	60 - 160
Endothall	82.9	68.3	P/P	60 - 160
Glufosinate	69.7	68.0	P/P	60 - 160
Glyphosate	99.0	110	P/P	60 - 160

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A114711
Included Lab Sample IDs: 2355029

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A114718
Included Lab Sample IDs: 2355029

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	97.8	99.8	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A114728
Included Lab Sample IDs: 2355057

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Iron	101	101	P/P	90 - 110
Strontium	99.7	99.5	P/P	90 - 110
Tin	102	102	P/P	90 - 110
Titanium	98.0	97.4	P/P	90 - 110
Vanadium	98.6	98.2	P/P	90 - 110
Zinc	99.1	98.4	P/P	90 - 110

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Calibration Verification

Reference Method: SM 2320 B-2011
Run ID: A114732
Included Lab Sample IDs: 2355022, 2355023

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	97.4	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Run ID: A114732
Included Lab Sample IDs: 2355022, 2355023, 2355026

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

Reference Method: SM 2320 B-2011
Run ID: A114739
Included Lab Sample IDs: 2355028

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

Reference Method: SM 4500-F- C-2011
Run ID: A114739
Included Lab Sample IDs: 2355028

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A114741
Included Lab Sample IDs: 2355025

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.8	97.7	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A114744
Included Lab Sample IDs: 2355025, 2355027

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	102	99.1	P/P	90 - 110

Reference Method: SM 5310 B-2011
Run ID: A114746
Included Lab Sample IDs: 2355024, 2355025, 2355027

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.8	93.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A114750
Included Lab Sample IDs: 2355029

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

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Reference Method: EPA 365.1 Rev. 2.0
Run ID: A114752
Included Lab Sample IDs: 2355024, 2355025, 2355027

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

Reference Method: EPA 8270E
Run ID: A114763
Included Lab Sample IDs: 2355047, 2355049

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	98.1		P	80 - 120
Alpha-BHC	101		P	80 - 120
Alpha-Chlordane	97.5		P	80 - 120
Beta-BHC	97.2		P	80 - 120
Beta-Cyfluthrin	97.6		P	80 - 120
Bifenthrin	119		P	80 - 120
Carbophenothion	99.8		P	80 - 120
Chlorothalonil	109		P	80 - 120
Cis-Nonachlor	95.9		P	80 - 120
Cypermethrin	97.5		P	80 - 120
Dacthal	101		P	80 - 120
DDD-p,p'	96.8		P	80 - 120
DDE-p,p'	99.3		P	80 - 120
DDT-p,p'	100		P	80 - 120
Delta-BHC	100		P	80 - 120
Deltamethrin	101		P	80 - 120
Dichlobenil	104		P	80 - 120
Dicofol	89.5		P	80 - 120
Dieldrin	96.0		P	80 - 120
Endosulfan I	101		P	80 - 120
Endosulfan II	97.9		P	80 - 120
Endosulfan Sulfate	96.8		P	80 - 120
Endrin	99.0		P	80 - 120
Endrin Aldehyde	85.0		P	80 - 120
Endrin Ketone	91.1		P	80 - 120
Esfenvalerate	104		P	80 - 120
Ethalfluralin	98.1		P	80 - 120
Fenpropathrin	120		P	80 - 120
Gamma-BHC	101		P	80 - 120
Gamma-Chlordane	98.0		P	80 - 120
Heptachlor	94.3		P	80 - 120
Heptachlor Epoxide	103		P	80 - 120
Hexachlorobenzene	98.4		P	80 - 120
Kepone	85.8		P	80 - 120
Lambda-Cyhalothrin	98.2		P	80 - 120
Methoprene	102		P	80 - 120
Methoxychlor	126*		F	80 - 120
MGK-264	99.9		P	80 - 120
Mirex	98.8		P	80 - 120
Oxychlordane	99.2		P	80 - 120
Permethrin	95.8		P	80 - 120
Phenothrin	91.7		P	80 - 120
Piperonyl Butoxide	102		P	80 - 120
Prallethrin	91.8		P	80 - 120

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Calibration Verification

Reference Method: EPA 8270E
Run ID: A114763
Included Lab Sample IDs: 2355047, 2355049

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Tau-Fluvalinate	99.4		P	80 - 120
Tetramethrin	137*		F	80 - 120
Trans-Nonachlor	101		P	80 - 120
Triclosan Methyl	99.5		P	80 - 120
Trifluralin	104		P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A114771
Included Lab Sample IDs: 2355057

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	102	101	P/P	90 - 110
Magnesium	100	98.9	P/P	90 - 110

Reference Method: EPA 8276
Run ID: A114794
Included Lab Sample IDs: 2355047, 2355049

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	98.4		P	80 - 120
Toxaphene	98.5		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A114798
Included Lab Sample IDs: 2355057

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	98.2	97.3	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A114821
Included Lab Sample IDs: 2355048

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	102		P	80 - 120
Alachlor	103		P	80 - 120
Ametryn	113		P	80 - 120
Atrazine	103		P	80 - 120
Atrazine Desethyl	99.7		P	80 - 120
Azinphos Methyl	111		P	80 - 120
Azoxystrobin	93.4		P	80 - 120
Bromacil	102		P	80 - 120
Butylate	108		P	80 - 120
Caffeine	95.1		P	80 - 120
Carbophenothion	104		P	80 - 120
Carfentrazone Ethyl	104		P	80 - 120
Chlorfenapyr	105		P	80 - 120
Chlorpyrifos Ethyl	101		P	80 - 120
Chlorpyrifos Methyl	99.5		P	80 - 120
Coumaphos	92.9		P	80 - 120
Cyanazine	101		P	80 - 120

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Reference Method: EPA 8270E
Run ID: A114821
Included Lab Sample IDs: 2355048

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cyprodinil	102		P	80 - 120
Demeton	102		P	80 - 120
Diazinon	105		P	80 - 120
Difenoconazole	100		P	80 - 120
Dimethenamid	104		P	80 - 120
Dimethomorph	96.8		P	80 - 120
Disulfoton	104		P	80 - 120
Dithiopyr	107		P	80 - 120
EPTC	100		P	80 - 120
Ethion	100		P	80 - 120
Ethoprop	99.0		P	80 - 120
Etridiazole	99.6		P	80 - 120
Fenamiphos	108		P	80 - 120
Fenbuconazole	96.2		P	80 - 120
Fipronil	105		P	80 - 120
Fipronil Desulfinyl	105		P	80 - 120
Fipronil Sulfide	102		P	80 - 120
Fipronil Sulfone	106		P	80 - 120
Fluazifop-P-butyl	104		P	80 - 120
Fludioxonil	104		P	80 - 120
Flumioxazin	88.7		P	80 - 120
Flutolanil	99.8		P	80 - 120
Fluxapyroxad	117		P	80 - 120
Fonofos	92.6		P	80 - 120
Hexazinone	99.9		P	80 - 120
Imazalil	96.7		P	80 - 120
Iprodione	93.6		P	80 - 120
Loratadine	102		P	80 - 120
Malathion	91.4		P	80 - 120
Metalaxyl	105		P	80 - 120
Metolachlor	99.9		P	80 - 120
Metribuzin	106		P	80 - 120
Mevinphos	101		P	80 - 120
Molinate	104		P	80 - 120
Myclobutanil	108		P	80 - 120
Naled	95.6		P	80 - 120
Napropamide	98.2		P	80 - 120
Norflurazon	103		P	80 - 120
Oxadiazon	102		P	80 - 120
Oxyfluorfen	106		P	80 - 120
Parathion Ethyl	107		P	80 - 120
Parathion Methyl	104		P	80 - 120
Pendimethalin	102		P	80 - 120
Phorate	102		P	80 - 120
Prodiamine	120		P	80 - 120
Prometon	110		P	80 - 120
Prometryn	101		P	80 - 120
Pronamide	95.0		P	80 - 120
Propanil	100		P	80 - 120
Propargite	103		P	80 - 120
Propiconazole	101		P	80 - 120

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Reference Method: EPA 8270E
Run ID: A114821
Included Lab Sample IDs: 2355048

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pyraflufen Ethyl	96.3		P	80 - 120
Pyridaben	96.3		P	80 - 120
Pyriproxyfen	97.2		P	80 - 120
Simazine	99.2		P	80 - 120
Stirophos	103		P	80 - 120
Sulfentrazone	98.6		P	80 - 120
Tebuconazole	113		P	80 - 120
Terbufos	98.4		P	80 - 120
Terbuthylazine	102		P	80 - 120
Thiobencarb	102		P	80 - 120
Triadimefon	94.8		P	80 - 120

Reference Method: EPA 8270E
Run ID: A114834
Included Lab Sample IDs: 2355048

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Phenytoin	104		P	80 - 120

Reference Method: SM 2320 B-2011
Run ID: A114840
Included Lab Sample IDs: 2355026

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.1	99.9	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A114848
Included Lab Sample IDs: 2355047, 2355049

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	88.7		P	80 - 120
PCB-1260	98.8		P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A114866
Included Lab Sample IDs: 2355055, 2355056

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	103	102	P/P	90 - 110
Calcium	103	103	P/P	90 - 110
Iron	100	99.8	P/P	90 - 110
Iron	99.8	99.3	P/P	90 - 110
Magnesium	98.7	98.1	P/P	90 - 110
Magnesium	99.2	98.7	P/P	90 - 110
Strontium	102	102	P/P	90 - 110
Strontium	102	102	P/P	90 - 110
Tin	101	98.2	P/P	90 - 110
Tin	99.7	101	P/P	90 - 110
Titanium	97.9	99.9	P/P	90 - 110
Titanium	99.9	97.3	P/P	90 - 110

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Reference Method: EPA 200.7 Rev. 4.4
Run ID: A114866
Included Lab Sample IDs: 2355055, 2355056

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Vanadium	99.2	99.6	P/P	90 - 110
Vanadium	99.6	98.5	P/P	90 - 110
Zinc	100	95.6	P/P	90 - 110
Zinc	97.0	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A115023
Included Lab Sample IDs: 2355024, 2355025, 2355027

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

Reference Method: EPA 8270E
Run ID: A115103
Included Lab Sample IDs: 2355048

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	87.2		P	80 - 120
Avobenzone	99.8		P	80 - 120
Dechlorane Plus	94.1		P	80 - 120
Octinoxate	86.8		P	80 - 120
Oxybenzone	87.7		P	80 - 120
PBDE-47	87.9		P	80 - 120
PBDE-99	86.7		P	80 - 120
Tri-o-cresyl Phosphate	90.3		P	80 - 120

* Pass/Fail determinations are made for each bracketing calibration verification check.
Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.
Where they are different, both control limits are provided.

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			Precision		
						LCS	SMP	MS
EPA 180.1 Rev. 2.0	Turbidity	96.9					5.79	
	Turbidity	96.4					8.53	
EPA 200.7 Rev. 4.4	Calcium	107						0.260
	Calcium	103	109	85.0	107			4.90
	Iron	112	106	108				1.13
	Iron	106	108	106	107			2.43
	Magnesium	107						4.40
	Magnesium	106	107	102	108			2.84
	Strontium	108						1.51
	Strontium	103	103	101	103			2.08
	Tin	108	99.5	91.1				8.87
	Tin	107	107	104	106			2.23
	Titanium	106	106	104				1.80
	Titanium	103	105	102	102			2.84
	Vanadium	105	104	102				2.02
	Vanadium	102	104	100	101			3.33
	Zinc	104	97.5	97.4				0.107
	Zinc	102	101	98.9	101			2.52
EPA 200.8 Rev. 5.4	Aluminum	99.8	104	106				1.96
	Aluminum	99.1	97.8	98.9	99.1			0.856
	Antimony	103	100	99.4				1.06
	Antimony	102	104	102	107			2.11
	Arsenic	102	113	112				0.551
	Arsenic	102	102	101	104			1.45
	Beryllium	91.9	98.4	98.0				0.448
	Beryllium	100	98.4	96.8	98.4			1.58
	Cadmium	99.8	95.1	93.5				1.64
	Cadmium	98.8	99.8	98.3	103			1.50
	Chromium	100	97.2	95.9				1.40
	Chromium	100	106	105	106			0.819
	Cobalt	97.1	105	106				0.295
	Cobalt	96.5	97.3	95.0	98.7			2.31
	Copper	97.3	105	102				2.87
	Copper	99.4	98.5	97.2	102			1.37
	Lead	93.6	98.1	97.3				0.774
	Lead	91.8	93.8	92.8	95.5			1.11
	Manganese	98.6	93.6	93.9				0.132
	Manganese	98.9	104	100	104			1.14
	Molybdenum	99.1	110	110				0.102
	Molybdenum	97.6	100	98.0	101			2.07
	Nickel	98.3	107	109				1.33
	Nickel	101	101	99.0	101			1.95
	Selenium	101	99.0	101				2.35
	Selenium	102	102	99.2	104			2.79
	Silver	85.3	75.3	76.9				2.02
	Silver	88.3	88.3	86.8	90.8			1.71
	Thallium	99.4	105	105				0.0587
	Thallium	97.4	99.5	99.8	101			0.302
EPA 350.1 Rev. 2.0	Ammonia-N	98.4	105	105				0.0
	Ammonia-N	96.0	103	108				3.83
	Ammonia-N	98.6	94.6	96.2				1.39
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	106	99.2	98.3				0.646
	Kjeldahl Nitrogen	107	103	99.1				2.86
	Kjeldahl Nitrogen	99.4	105	108				1.89

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Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 353.2 Rev. 2.0	NO2NO3-N	100	98.5	100			2.01
	NO2NO3-N	103	101	103			2.34
EPA 365.1 Rev. 2.0	Total-P	108	108	106			1.65
	Total-P	104	103	105			1.84
EPA 8270E	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	90.4	78.4	64.4			19.6
	Acetochlor	86.6	105	97.1			8.11
	Alachlor	79.9	120	112			7.34
	Aldrin	57.5	75.3	74.2			1.46
	Alpha-BHC	86.5	91.7	94.9			3.48
	Alpha-Chlordane	74.8	90.2	88.2			2.28
	Ametryn	79.2	103	118			13.5
	Atrazine	81.1					0.258
	Atrazine Desethyl	61.3	38.5	37.8			1.78
	Avobenzone	96.4	58.3	55.8			4.42
	Azinphos Methyl	109	142	153			7.47
	Azoxystrobin	104	220	217			1.16
	Beta-BHC	116	84.0	106			23.6
	Beta-Cyfluthrin	63.8	89.6	91.2			1.75
	Bifenthrin	46.8	97.2	80.1			19.3
	Bromacil	108	90.1	79.1			13.0
	Butylate	40.8	20.4	23.4			13.7
	Caffeine	72.6					3.21
	Carbophenothion	56.0	75.9	75.2			0.944
	Carbophenothion	81.0	99.6	94.6			5.14
	Carfentrazone Ethyl	88.8	136	115			16.7
	Chlorfenapyr	83.3	90.4	77.6			12.0
	Chlorothalonil	133	126	145			14.2
	Chlorpyrifos Ethyl	106	115	94.0			20.3
	Chlorpyrifos Methyl	93.1	101	88.3			13.0
	Cis-Nonachlor	58.0	67.2	65.6			2.33
	Coumaphos	144	146	126			14.8
	Cyanazine	130	220	217			1.37
	Cypermethrin	45.9	67.2	69.5			3.30
	Cyprodinil	107	97.1	75.5			25.1
	Dacthal	94.6	89.3	91.7			2.64
	DDD-p,p'	47.0	51.2	50.8			0.800
	DDE-p,p'	74.2	85.7	86.2			0.555
	DDT-p,p'	71.9	82.8	83.4			0.702
	Dechlorane Plus	123	110	86.5			23.5
	Delta-BHC	135	115	132			14.0
	Deltamethrin	80.5	117	116			0.924
	Demeton	85.9	67.4	65.2			3.35
	Diazinon	118	84.1	79.9			5.19
	Dichlobenil	92.9	57.2	63.0			9.57
	Dicofol	37.0	49.2	46.8			4.97
	Dieldrin	55.7	64.1	62.2			3.08
	Difenoconazole	112	136	146			6.73
	Dimethenamid	69.5	103	93.8			9.76
	Dimethomorph	89.4	119	142			17.6
	Disulfoton	80.3	73.5	62.9			15.5
	Dithiopyr	92.7	111	97.6			10.4
	Endosulfan I	84.1	94.4	92.2			2.44

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8270E	Endosulfan II	85.2	81.8	83.1			1.52
	Endosulfan Sulfate	97.1	78.7	92.4			16.0
	Endrin	83.8	92.0	89.2			3.02
	Endrin Aldehyde	61.2	45.5	52.2			13.6
	Endrin Ketone	90.9	80.1	84.3			5.10
	EPTC	46.8	26.8	26.6			0.938
	Esfenvalerate	68.5	101	106			4.77
	Ethalfluralin	63.7	72.8	71.5			1.76
	Ethion	86.8	97.3	84.7			13.9
	Ethoprop	84.1	116	105			9.69
	Etridiazole	50.6	81.6	82.8			1.45
	Fenamiphos	85.0	114	104			9.43
	Fenbuconazole	111	158	156			1.38
	Fenpropathrin	58.6	80.4	75.4			6.41
	Fipronil	55.0					4.77
	Fipronil Desulfinyl	72.4	120	102			13.4
	Fipronil Sulfide	52.5					1.35
	Fipronil Sulfone	70.1					2.49
	Fluazifop-P-butyl	87.8	100	87.5			13.5
	Fludioxonil	86.3	91.9	106			10.3
	Flumioxazin	98.3	149	102			36.9
	Flutolanil	89.7	89.1	81.6			8.50
	Fluxapyroxad	104	84.1	54.9			39.9
	Fonofos	81.6	75.3	63.9			16.5
	Gamma-BHC	97.3	94.4	101			6.87
	Gamma-Chlordane	71.5	79.6	81.2			1.80
	Heptachlor	42.6	54.4	52.4			3.75
	Heptachlor Epoxide	79.2	87.8	85.7			2.45
	Hexachlorobenzene	64.0	78.6	75.8			3.70
	Hexazinone	87.2					9.03
	Imazalil	74.8	202	167			19.3
	Iprodione	134	91.5	85.9			6.30
	Kepone	213	69.9	131			60.9
	Lambda-Cyhalothrin	41.5	66.4	63.9			3.72
	Loratadine	113					27.8
	Malathion	95.7	89.0	86.1			3.25
	Metalaxyl	89.4	52.3	52.5			0.368
	Methoprene	54.4	99.4	83.5			17.5
	Methoxychlor	92.7	90.9	92.6			1.63
	Metolachlor	93.8	60.2	60.0			0.337
	Metribuzin	89.5	132	132			0.145
	Mevinphos	73.2	107	90.8			16.3
	MGK-264	83.4	86.1	91.8			6.37
	Mirex	40.5	62.3	58.9			5.47
	Molinate	61.5	45.6	42.9			6.14
	Myclobutanil	98.2	98.8	87.0			11.8
	Naled	83.8	91.4	89.5			2.04
	Napropamide	67.8	85.9	63.8			29.6
	Norflurazon	82.8	122	104			15.9
	Octinoxate	78.2	41.8	28.0			21.8
	Oxadiazon	77.1	50.4	45.9			9.39
	Oxybenzone	65.1	64.6	51.3			23.1
	Oxychlordane	71.5	78.8	80.1			1.60
	Oxyfluorfen	98.5	164	143			13.4

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8270E	Parathion Ethyl	74.6	99.6	92.4			7.48
	Parathion Methyl	98.3	113	112			1.32
	PBDE-47	71.0	60.6	48.9			21.4
	PBDE-99	85.5	72.5	59.3			20.0
	PCB-1016	73.4	69.6	69.1			0.723
	PCB-1260	75.7	55.7	56.4			1.30
	Pendimethalin	74.4	91.2	86.4			5.45
	Permethrin	45.2	70.8	65.3			8.01
	Phenothrin	29.2	57.5	58.2			1.08
	Phenytoin	25.2	141	41.3			60.3
	Phorate	82.0	110	104			5.02
	Piperonyl Butoxide	108	128	126			0.895
	Prallethrin	65.0	72.9	77.8			6.48
	Prodiamine	57.5	55.2	61.0			9.88
	Prometon	77.1	78.1	80.6			3.24
	Prometryn	109	62.4	54.7			13.2
	Pronamide	117	73.1	68.6			6.41
	Propanil	74.4	121	120			0.850
	Propargite	120	199	174			12.9
	Propiconazole	92.8	141	141			0.293
	Pyraflufen Ethyl	92.4	139	125			10.2
	Pyridaben	124	189	175			7.45
	Pyriproxyfen	121	94.0	92.1			2.01
	Simazine	83.8	118	108			8.52
	Stirophos	80.5	100	57.4			54.4
	Sulfentrazone	96.7	80.1	57.7			18.6
	Tau-Fluvalinate	52.8	79.8	85.8			7.23
	Tebuconazole	82.8					29.1
	Terbufos	111	129	121			5.97
	Terbuthylazine	81.3	115	116			1.52
	Tetramethrin	77.4	103	102			0.982
	Thiobencarb	76.5	121	107			12.2
	Trans-Nonachlor	76.8	88.8	88.7			0.162
	Tri-o-cresyl Phosphate	76.9	68.6	55.5			21.2
	Triadimefon	78.5	115	110			4.60
	Triclosan Methyl	79.6	86.3	85.5			0.962
	Trifluralin	65.9	74.6	73.3			1.88
EPA 8276	Chlordane	80.8	67.0	66.3			1.04
	Toxaphene	78.4	75.7	74.5			1.51
EPA 8321B	2,4-D	96.4	86.1	96.6			11.4
	2,4,5-T	75.1	81.1	92.7			13.3
	Acesulfame K	100	77.2	75.8			1.94
	Acetaminophen	71.7	54.7	48.6			11.9
	Acetamiprid	79.0	68.7	71.1			3.53
	Afidopyropen	37.9	34.7	38.1			9.19
	AMPA	97.9	72.9	77.4			4.72
	Bentazon	116	99.5	111			9.74
	Benzovindiflupyr	82.9	71.6	67.5			5.97
	Carbamazepine	97.1	87.7	88.1			0.477
	Clothianidin	97.3	71.5	67.8			5.31
	Dinotefuran	84.8	75.2	73.0			2.97
	Diuron	101	91.4	95.1			3.96
	Endothall	85.2	125	120			4.22
	Fenuron	104	85.0	93.0			8.93

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8321B	Fluridone	82.3	81.3	86.3			6.01
	Glufosinate	81.4	71.0	67.1			5.58
	Glyphosate	107	98.0	106			5.26
	Hydrocodone	94.0	88.5	88.1			0.505
	Ibuprofen	111	91.8	87.1			5.20
	Imazapyr	97.0	89.1	92.7			3.61
	Imidacloprid	99.4	77.6	74.4			4.27
	Linuron	89.1	96.6	99.8			3.33
	Mandestrobin	86.4	83.4	86.7			3.81
	MCPP	102	94.9	98.8			4.07
	Naproxen	129	92.4	152			48.7
	Primidone	86.9	58.1	44.9			25.6
	Pyraclostrobin	70.4	72.0	75.8			5.18
	Silvex	65.6	75.5	83.5			10.0
	Sucralose	94.4	95.3	93.2			2.23
	Thiamethoxam	89.4	93.2	82.2			12.5
	Tolfenpyrad	34.0	38.0	35.6			6.67
	Triclopyr	72.9	66.3	80.1			18.9
SM 2320 B-2011	Total Alkalinity	99.7				0.671	
	Total Alkalinity	98.9				1.74	
	Total Alkalinity	98.7				0.0450	
SM 4500-F- C-2011	Fluoride	99.8	100	100			0.0
	Fluoride	100	97.6	97.6			0.0
	Fluoride	99.6	99.7	98.5			0.953
SM 5310 B-2011	Organic Carbon	95.5	96.6	97.0			0.248
	Organic Carbon	97.8	88.5	89.8			1.14

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2355022, 2355023, 2355026, 2355028
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2355055, 2355056, 2355057
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2355055, 2355056, 2355057
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2355024, 2355025, 2355027, 2355029
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2355024, 2355025, 2355027, 2355029
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2355024, 2355025, 2355027, 2355029
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2355024, 2355025, 2355027, 2355029
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2355048
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2355047, 2355049
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2355048
EPA 8270E	PCBs in water matrices by GC/MS/MS	2355047, 2355049
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2355047, 2355049
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2355054
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2355022, 2355023, 2355026, 2355028
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2355022, 2355023, 2355026, 2355028
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2355022, 2355023, 2355026, 2355028
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2355024, 2355025, 2355027, 2355029

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	09/08/2022			09/08/2022 13:27	Chandler E Cox	2355022
	09/08/2022			09/08/2022 13:28	Chandler E Cox	2355023
	09/08/2022			09/08/2022 13:34	Chandler E Cox	2355026
	09/08/2022			09/08/2022 13:37	Chandler E Cox	2355028
EPA 200.7 Rev. 4.4	09/08/2022	09/09/2022 10:00	Megan Whitefoot	09/21/2022 17:28	McKinley C Carter	2355055
	09/08/2022	09/09/2022 10:00	Megan Whitefoot	09/21/2022 18:20	McKinley C Carter	2355056
	09/08/2022	09/12/2022 10:30	Megan Whitefoot	09/14/2022 20:25	McKinley C Carter	2355057
	09/08/2022	09/12/2022 10:30	Megan Whitefoot	09/15/2022 19:53	McKinley C Carter	2355057
EPA 200.8 Rev. 5.4	09/08/2022	09/09/2022 10:00	Megan Whitefoot	09/12/2022 01:11	Emily M Philpot	2355055
	09/08/2022	09/09/2022 10:00	Megan Whitefoot	09/12/2022 01:20	Emily M Philpot	2355056
	09/08/2022	09/09/2022 10:00	Megan Whitefoot	09/12/2022 16:44	Emily M Philpot	2355055
	09/08/2022	09/09/2022 10:00	Megan Whitefoot	09/12/2022 16:50	Emily M Philpot	2355056
	09/08/2022	09/12/2022 10:30	Megan Whitefoot	09/13/2022 15:11	Megan Whitefoot	2355057
	09/08/2022	09/16/2022 09:25	Megan Whitefoot	09/16/2022 23:26	Emily M Philpot	2355057
EPA 350.1 Rev. 2.0	09/08/2022			09/09/2022 10:39	Judith K. Clark	2355024
	09/08/2022			09/09/2022 11:22	Judith K. Clark	2355029
	09/08/2022			09/14/2022 12:28	Ping Hua	2355025
	09/08/2022			09/14/2022 12:32	Ping Hua	2355027
EPA 351.2 Rev. 2.0	09/08/2022	09/12/2022 09:22	Samantha L Bates	09/13/2022 09:48	Samantha L Bates	2355024
	09/08/2022	09/12/2022 09:22	Samantha L Bates	09/13/2022 09:50	Samantha L Bates	2355027
	09/08/2022	09/14/2022 13:25	Samantha L Bates	09/15/2022 10:49	Samantha L Bates	2355025
	09/08/2022	09/14/2022 13:25	Samantha L Bates	09/15/2022 12:11	Samantha L Bates	2355029
EPA 353.2 Rev. 2.0	09/08/2022			09/14/2022 09:26	Judith K. Clark	2355029
	09/08/2022			09/28/2022 16:31	Touraj Touran	2355024
	09/08/2022			09/28/2022 16:32	Touraj Touran	2355025
	09/08/2022			09/28/2022 16:34	Touraj Touran	2355027
EPA 365.1 Rev. 2.0	09/08/2022	09/13/2022 15:30	Simonne.V. Calhoun	09/14/2022 12:56	James L Waggerby	2355029
	09/08/2022	09/14/2022 16:15	Simonne.V. Calhoun	09/15/2022 13:36	Simonne.V. Calhoun	2355024
	09/08/2022	09/14/2022 16:15	Simonne.V. Calhoun	09/15/2022 13:38	Simonne.V. Calhoun	2355025
	09/08/2022	09/14/2022 16:15	Simonne.V. Calhoun	09/15/2022 13:39	Simonne.V. Calhoun	2355027
EPA 8270E	09/08/2022	09/13/2022 08:45	Rasheda Ghaffari	09/15/2022 20:42	Vandana T. Nagar	2355049
	09/08/2022	09/13/2022 08:45	Rasheda Ghaffari	09/15/2022 23:23	Julie Wi	2355047
	09/08/2022	09/13/2022 08:45	Rasheda Ghaffari	09/15/2022 23:53	Julie Wi	2355049
	09/08/2022	09/13/2022 08:45	Rasheda Ghaffari	09/16/2022 00:06	Vandana T. Nagar	2355047
	09/08/2022	09/14/2022 08:30	Rasheda Ghaffari	09/18/2022 18:12	Michael Poppell	2355048
	09/08/2022	09/14/2022 08:30	Rasheda Ghaffari	09/20/2022 20:14	Michael Poppell	2355048
	09/08/2022	10/02/2022 09:30	Rasheda Ghaffari	10/03/2022 20:56	Lipi Saha	2355048
EPA 8276	09/08/2022	09/13/2022 08:45	Rasheda Ghaffari	09/16/2022 08:45	Arthur Maknenko	2355047
	09/08/2022	09/13/2022 08:45	Rasheda Ghaffari	09/16/2022 09:41	Arthur Maknenko	2355049
EPA 8321B	09/08/2022	09/09/2022 09:00	June Rhew	09/09/2022 21:08	Juyoung Kim	2355054

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	09/08/2022	09/13/2022 08:00	Manjita Shrestha	09/13/2022 10:54	Manjita Shrestha	2355054
	09/08/2022	09/13/2022 08:00	Manjita Shrestha	09/13/2022 15:14	Manjita Shrestha	2355054
	09/08/2022	09/13/2022 08:00	Manjita Shrestha	09/13/2022 22:31	Manjita Shrestha	2355054
SM 2320 B-2011	09/08/2022			09/14/2022 04:33	Dale L. Simmons	2355022
	09/08/2022			09/14/2022 04:48	Dale L. Simmons	2355023
	09/08/2022			09/15/2022 00:35	Dale L. Simmons	2355028
	09/08/2022			09/20/2022 17:49	Dale L. Simmons	2355026
SM 2540 D-2011	09/08/2022			09/09/2022 16:25	Yijie Li	2355022, 2355023, 2355026, 2355028
SM 4500-F- C-2011	09/08/2022			09/14/2022 04:33	Dale L. Simmons	2355022
	09/08/2022			09/14/2022 04:48	Dale L. Simmons	2355023
	09/08/2022			09/14/2022 06:33	Dale L. Simmons	2355026
	09/08/2022			09/15/2022 00:35	Dale L. Simmons	2355028
SM 5310 B-2011	09/08/2022			09/12/2022 20:54	Khloe J Berg	2355029
	09/08/2022			09/15/2022 04:36	Khloe J Berg	2355027
	09/08/2022			09/15/2022 05:42	Khloe J Berg	2355024
	09/08/2022			09/15/2022 06:16	Khloe J Berg	2355025