

Chemical Analysis Report

NW-DIST-2022-09-01-01

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

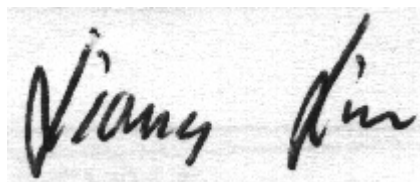
Event Description: **Laurel Hill East**
Request ID: **RQ-2022-08-29-21**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
160 W Government Street
Suite 208
Pensacola, FL 32502-5794
Attn: Myranda Butler

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Certified by: Liang Lin, Environmental Administrator

Date Certified: 21-SEP-2022 10:01

A handwritten signature in black ink, appearing to read "Liang Lin", is shown on a light-colored background.

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: Gum Creek

Collection Date/Time: 08/31/2022 10:30

Field ID: G4NW0382

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2353562	DEP SOP: NU-094-1	Color (true)	96		PCU	P419021	
	EPA 180.1 Rev. 2.0	Turbidity	4.9		NTU	P419015	
	EPA 300.0 Rev. 2.1	Chloride	3.8		mg Cl/L	P419470	
		Sulfate	0.58		mg SO4/L	P419473	
	SM 2320 B-2011	Total Alkalinity	1.8	I	mg CaCO3/L	P419411	
	SM 2540 C-2011	TDS	28		mg/L	P419429	
	SM 2540 D-2011	TSS	8	I	mg/L	P419319	
	SM 4500-F- C-2011	Fluoride	0.035	U	mg F/L	P419389	
2353563	EPA 350.1 Rev. 2.0	Ammonia-N	0.012		mg N/L	P419309	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.49		mg N/L	P419173	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.40		mg N/L	P419127	
	EPA 365.1 Rev. 2.0	Total-P	0.021		mg P/L	P419246	
	SM 5310 B-2011	Organic Carbon	7.9		mg C/L	P419188	
2353575	EPA 8321B	Aldicarb	0.020	U	ug/L	P418942	
		Aldicarb Sulfone	0.0020	U	ug/L	P418942	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P418942	
		Carbaryl	0.0020	U	ug/L	P418942	
		Carbofuran	0.0020	U	ug/L	P418942	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P418942	
		Methiocarb	0.0020	U	ug/L	P418942	
		Methomyl	0.0020	U	ug/L	P418942	
		Oxamyl	0.0020	U	ug/L	P418942	
		Propoxur	0.0020	U	ug/L	P418942	
2353576		2,4-D	0.0020	U	ug/L	P419091	
		Acesulfame K	0.10	U	ug/L	P418802	
		2,4,5-T	0.0040	U	ug/L	P419091	
		AMPA	0.10	U	ug/L	P418802	
		Acetaminophen	0.0080	U	ug/L	P419091	
		Acetamiprid	0.0020	U	ug/L	P419091	
		Endothall	0.25	U	ug/L	P418802	
		Glufosinate	0.10	U	ug/L	P418802	
		Glyphosate	0.10	U	ug/L	P418802	
		Afidopyropen	0.0057	I	ug/L	P419091	
		Bentazon	8.0E-04	U	ug/L	P419091	
		Sucralose	0.091		ug/L	P418802	
		Benzovindiflupyr	0.0020	U	ug/L	P419091	
		Carbamazepine	8.0E-04	U	ug/L	P419091	
		Clothianidin	0.0020	U	ug/L	P419091	
		Dinotefuran	0.0020	U	ug/L	P419091	
		Diuron	0.0020	U	ug/L	P419091	
		Fenuron	0.032	U	ug/L	P419091	
		Fluridone	8.0E-04	U	ug/L	P419091	
		Imazapyr	0.055		ug/L	P419091	
		Hydrocodone	0.0020	U	ug/L	P419091	

Field ID: G4NW0382

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2353576	EPA 8321B	Ibuprofen	0.080	U	ug/L	P419091	
		Imidacloprid	0.0021	I	ug/L	P419091	
		Linuron	0.0040	U	ug/L	P419091	
		Mandestrobin	0.0020	U	ug/L	P419091	
		MCP	0.0040	U	ug/L	P419091	
		Naproxen	0.0080	U	ug/L	P419091	
		Primidone	0.0040	U	ug/L	P419091	
		Pyraclostrobin	0.0020	U	ug/L	P419091	
		Silvex	0.0040	U	ug/L	P419091	
		Thiamethoxam	0.0020	U	ug/L	P419091	RPD
		Tolfenpyrad	0.0020	U	ug/L	P419091	
		Triclopyr	0.0040	U	ug/L	P419091	
2353577	EPA 8270E	Aldrin	0.68	U	ng/L	P419031	
		Alpha-BHC	0.10	U	ng/L	P419031	
		Alpha-Chlordane	0.54	I	ng/L	P419031	
		PCB-1016	2.1	U	ng/L	P419031	
		Beta-BHC	0.10	U	ng/L	P419031	
		PCB-1221	2.1	U	ng/L	P419031	
		Beta-Cyfluthrin	1.3	U	ng/L	P419031	
		PCB-1232	2.1	U	ng/L	P419031	
		Bifenthrin	0.52	U	ng/L	P419031	
		PCB-1242	2.1	U	ng/L	P419031	
		PCB-1248	2.1	U	ng/L	P419031	
		Chlorothalonil	1.3	U	ng/L	P419031	
		PCB-1254	2.1	U	ng/L	P419031	
		Cis-Nonachlor	0.21	U	ng/L	P419031	
		PCB-1260	2.1	U	ng/L	P419031	
		Cypermethrin	1.6	U	ng/L	P419031	
		Dacthal	0.16	U	ng/L	P419031	
		DDD-p,p'	0.26	U	ng/L	P419031	
		DDE-p,p'	0.21	U	ng/L	P419031	
		DDT-p,p'	0.26	U	ng/L	P419031	
		Delta-BHC	0.42	U	ng/L	P419031	
		Deltamethrin	1.3	U	ng/L	P419031	
		Dichlobenil	0.26	U	ng/L	P419031	
		Dicofol	1.3	U	ng/L	P419031	
		Dieldrin	33		ng/L	P419031	
		Endosulfan I	0.42	U	ng/L	P419031	
		Endosulfan II	0.42	U	ng/L	P419031	
		Endosulfan Sulfate	0.31	U	ng/L	P419031	
		Endrin	0.42	U	ng/L	P419031	
		Endrin Aldehyde	0.78	U	ng/L	P419031	
		Endrin Ketone	0.55	I	ng/L	P419031	
		Esfenvalerate	0.78	U	ng/L	P419031	
		Ethalfuralin	0.16	U	ng/L	P419031	

Field ID: G4NW0382

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2353577	EPA 8270E	Fenpropathrin	0.26	U	ng/L	P419031	
		Gamma-BHC	0.13	UJ	ng/L	P419031	LCS
		Gamma-Chlordane	0.50	I	ng/L	P419031	
		Heptachlor	0.21	U	ng/L	P419031	
		Heptachlor Epoxide	14		ng/L	P419031	
		Hexachlorobenzene**	1.0	U	ng/L	P419031	
		Kepone	5.2	UJ	ng/L	P419031	CCV
		Lambda-Cyhalothrin	0.78	U	ng/L	P419031	
		Methoprene	0.78	U	ng/L	P419031	
		Methoxychlor	0.31	U	ng/L	P419031	
		MGK-264	0.21	U	ng/L	P419031	
		Mirex	0.37	U	ng/L	P419031	
		Oxychlordane	0.31	U	ng/L	P419031	
		Permethrin	1.7	U	ng/L	P419031	
		Phenothrin	0.94	U	ng/L	P419031	
		Piperonyl Butoxide	0.16	U	ng/L	P419031	
		Prallethrin	2.1	U	ng/L	P419031	
		Tau-Fluvalinate	0.26	U	ng/L	P419031	
		Tetramethrin	0.78	U	ng/L	P419031	
		Trans-Nonachlor	0.21	U	ng/L	P419031	
		Triclosan Methyl	0.16	U	ng/L	P419031	
		Trifluralin	0.22	I	ng/L	P419031	
2353578	EPA 8276	Chlordane	5.9	IJ	ng/L	P419031	SUR
		Toxaphene	16	UJ	ng/L	P419031	SUR
	EPA 8270E	Oxybenzone**	9.5	U	ng/L	P418990	
		Acetochlor	0.24	U	ng/L	P418990	RPD
		Octinoxate**	19	U	ng/L	P418990	
		Alachlor	0.42	I	ng/L	P418990	RPD
		Avobenzone**	95	U	ng/L	P418990	RPD
		Ametryn	0.57	U	ng/L	P418990	
		Atrazine	0.38	I	ng/L	P418990	
		PBDE-47**	3.8	U	ng/L	P418990	
		Atrazine Desethyl	1.4	U	ng/L	P418990	
		PBDE-99**	4.8	U	ng/L	P418990	
		Azinphos Methyl	1.9	U	ng/L	P418990	
		Tri-o-cresyl Phosphate**	5.7	U	ng/L	P418990	
		Azoxystrobin	0.48	U	ng/L	P418990	
		Bromacil	0.48	U	ng/L	P418990	
		2-Ethylhexyl	11	U	ng/L	P418990	
		2,3,4,5-tetrabromobenzoate (EHTBB)**					
		Butylate	0.38	U	ng/L	P418990	
		Dechlorane Plus**	29	U	ng/L	P418990	RPD
		Caffeine**	7.1	U	ng/L	P418990	
		Carbophenothion	0.19	U	ng/L	P418990	RPD
		Carfentrazone Ethyl	0.095	U	ng/L	P418990	RPD

Field ID: G4NW0382

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2353578	EPA 8270E	Chlorfenapyr	0.17	U	ng/L	P418990	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P418990	
		Chlorpyrifos Methyl	0.048	U	ng/L	P418990	RPD
		Coumaphos	0.48	U	ng/L	P418990	RPD
		Cyanazine	3.1	U	ng/L	P418990	
		Cyprodinil	0.095	U	ng/L	P418990	
		Demeton	1.4	U	ng/L	P418990	RPD
		Diazinon	0.12	U	ng/L	P418990	RPD
		Difenoconazole	0.57	U	ng/L	P418990	RPD
		Dimethenamid	0.095	U	ng/L	P418990	MS, RPD
		Dimethomorph	0.17	U	ng/L	P418990	RPD
		Disulfoton	0.48	U	ng/L	P418990	
		Dithiopyr	0.66	IV	ng/L	P418990	RPD
		EPTC	1.2	U	ng/L	P418990	
		Ethion	0.14	U	ng/L	P418990	
		Ethoprop	0.095	U	ng/L	P418990	
		Etridiazole	0.14	U	ng/L	P418990	MS, RPD
		Fenamiphos	0.48	U	ng/L	P418990	
		Fenbuconazole	0.12	U	ng/L	P418990	
		Fipronil	0.24	U	ng/L	P418990	
		Fipronil Desulfinyl**	0.17	I	ng/L	P418990	RPD
		Fipronil Sulfide	0.15	I	ng/L	P418990	
		Fipronil Sulfone	0.28	I	ng/L	P418990	
		Fluazifop-P-butyl	0.095	U	ng/L	P418990	RPD
		Fludioxonil	0.12	U	ng/L	P418990	RPD
		Flumioxazin	1.7	U	ng/L	P418990	
		Flutolanil	2.6		ng/L	P418990	RPD
		Fluxapyroxad	0.33	I	ng/L	P418990	
		Fonofos	0.19	U	ng/L	P418990	RPD
		Hexazinone	0.48	U	ng/L	P418990	
		Imazalil	0.71	UJ	ng/L	P418990	LCS, MS, RPD
		Iprodione	0.57	U	ng/L	P418990	
		Loratadine**	0.095	U	ng/L	P418990	RPD
		Malathion	0.33	U	ng/L	P418990	
		Metalaxyl	0.71	U	ng/L	P418990	
		Metolachlor	2.4		ng/L	P418990	
		Metribuzin	2.4	U	ng/L	P418990	
		Mevinphos	1.0	U	ng/L	P418990	
		Molinate	0.29	U	ng/L	P418990	
		Myclobutanil	0.24	U	ng/L	P418990	RPD
		Naled	1.4	U	ng/L	P418990	RPD
		Napropamide	0.38	U	ng/L	P418990	
		Norflurazon	0.48	U	ng/L	P418990	
		Oxadiazon	0.29	U	ng/L	P418990	RPD

Field ID: G4NW0382

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2353578	EPA 8270E	Oxyfluorfen	0.14	U	ng/L	P418990	RPD
		Parathion Ethyl	0.24	U	ng/L	P418990	RPD
		Parathion Methyl	0.52	U	ng/L	P418990	RPD
		Pendimethalin	0.95	U	ng/L	P418990	
		Phenytol**	3.3	U	ng/L	P418990	
		Phorate	0.50	U	ng/L	P418990	
		Prodiatone	0.17	U	ng/L	P418990	
		Prometon	0.86	U	ng/L	P418990	RPD
		Prometryn	0.19	U	ng/L	P418990	RPD
		Pronamide	0.14	U	ng/L	P418990	
		Propanil	0.12	U	ng/L	P418990	
		Propargite	1.4	U	ng/L	P418990	RPD
		Propiconazole	0.48	U	ng/L	P418990	
		Pyraflufen Ethyl	0.24	U	ng/L	P418990	RPD
		Pyridaben	0.43	U	ng/L	P418990	RPD
		Pyriproxyfen	0.12	U	ng/L	P418990	
		Simazine	1.9	I	ng/L	P418990	
		Stirophos	0.12	U	ng/L	P418990	
		Sulfentrazone	0.48	U	ng/L	P418990	
		Tebuconazole	0.50	I	ng/L	P418990	
		Terbufos	0.095	U	ng/L	P418990	
		Terbutylazine	0.40	U	ng/L	P418990	MS, RPD
		Thiobencarb	0.57	U	ng/L	P418990	
		Triadimefon	0.24	U	ng/L	P418990	

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 8276: Refer to the Lab Analysis Report for an explanation of QC Codes.

EPA 8270E: V - Due to the presence of dithiopyr in both the Method Blank and the sample. Refer to the Lab Analysis Report for an explanation of QC Codes.

**Sample Location: East Branch Pine Log Creek above Bear Bay
 Flats Road**

Collection Date/Time: 08/31/2022 11:35

Field ID: G4NW0208

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2353564	DEP SOP: NU-094-1	Color (true)	110		PCU	P419021	
	EPA 180.1 Rev. 2.0	Turbidity	1.8		NTU	P419015	
	EPA 300.0 Rev. 2.1	Chloride	5.4		mg Cl/L	P419470	
		Sulfate	0.49	I	mg SO4/L	P419473	
	SM 2320 B-2011	Total Alkalinity	7.4		mg CaCO3/L	P419411	
	SM 2540 C-2011	TDS	56		mg/L	P419429	
	SM 2540 D-2011	TSS	2	I	mg/L	P419319	
	SM 4500-F- C-2011	Fluoride	0.035	U	mg F/L	P419389	
2353565	EPA 350.1 Rev. 2.0	Ammonia-N	0.057		mg N/L	P419309	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.70		mg N/L	P419173	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.033		mg N/L	P419127	
	EPA 365.1 Rev. 2.0	Total-P	0.037		mg P/L	P419246	
	SM 5310 B-2011	Organic Carbon	13		mg C/L	P419188	

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: Pond Creek upstream of Bob Sikes Hwy

Collection Date/Time: 08/31/2022 12:00

Field ID: G4NW0522

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2353579	EPA 200.7 Rev. 4.4	Calcium	6.82		mg/L	P419103	
		Iron	1.86E+03		ug/L	P419103	
		Magnesium	2.08		mg/L	P419103	
		Potassium	1.2		mg/L	P419103	
		Sodium	3.1		mg/L	P419103	
		Strontium	21.2		ug/L	P419103	
		Tin	3.0	U	ug/L	P419103	
		Titanium	0.75	U	ug/L	P419103	
		Vanadium	2.0	U	ug/L	P419103	
		Zinc	5.0	U	ug/L	P419103	
	EPA 200.8 Rev. 5.4	Aluminum	68		ug/L	P419103	
		Antimony	0.050	U	ug/L	P419103	
		Arsenic	1.19		ug/L	P419103	
		Barium	22.8		ug/L	P419103	
		Beryllium	0.012	I	ug/L	P419103	
		Boron	16.4		ug/L	P419103	
		Cadmium	0.020	U	ug/L	P419103	
		Chromium	0.40	U	ug/L	P419103	
		Cobalt	0.148		ug/L	P419103	
		Copper	0.40	U	ug/L	P419103	
		Lead	0.20	U	ug/L	P419103	
		Manganese	69.2		ug/L	P419103	
		Molybdenum	0.15	U	ug/L	P419103	
		Nickel	0.50	U	ug/L	P419103	
		Selenium	0.20	U	ug/L	P419103	
		Silver	0.010	U	ug/L	P419103	
		Thallium	0.10	U	ug/L	P419103	
	SM 2340 B-2011	Hardness	25.6		mg/L	P419103	

Sample Location: Horsehead Creek

Collection Date/Time: 08/31/2022 12:30

Field ID: G4NW0018

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2353580	EPA 200.7 Rev. 4.4	Calcium	4.54		mg/L	P419103	
		Iron	1.88E+03		ug/L	P419103	
		Magnesium	1.05		mg/L	P419103	
		Potassium	0.68	I	mg/L	P419103	
		Sodium	2.1		mg/L	P419103	
		Strontium	13.7		ug/L	P419103	
		Tin	3.0	U	ug/L	P419103	
		Titanium	1.0	I	ug/L	P419103	
		Vanadium	2.0	U	ug/L	P419103	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P419103	
		Aluminum	96		ug/L	P419103	
		Antimony	0.050	U	ug/L	P419103	
		Arsenic	0.91		ug/L	P419103	
		Barium	19.6		ug/L	P419103	
		Beryllium	0.018	I	ug/L	P419103	
		Boron	8.9		ug/L	P419103	
		Cadmium	0.020	U	ug/L	P419103	
		Chromium	0.40	U	ug/L	P419103	
		Cobalt	0.183		ug/L	P419103	
		Copper	0.40	U	ug/L	P419103	
		Lead	0.20	U	ug/L	P419103	
		Manganese	46.3		ug/L	P419103	
		Molybdenum	0.15	U	ug/L	P419103	
		Nickel	0.50	U	ug/L	P419103	
		Selenium	0.20	U	ug/L	P419103	
		Silver	0.010	U	ug/L	P419103	
		Thallium	0.10	U	ug/L	P419103	
	SM 2340 B-2011	Hardness	15.6		mg/L	P419103	

Sample Location: Horsehead Creek upstream of Millside Rd

Collection Date/Time: 08/31/2022 13:00

Field ID: G4NW0515

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2353581	EPA 200.7 Rev. 4.4	Calcium	3.42		mg/L	P419103	
		Iron	1.68E+03		ug/L	P419103	
		Magnesium	1.16		mg/L	P419103	
		Potassium	0.79	I	mg/L	P419103	
		Sodium	1.9	I	mg/L	P419103	
		Strontium	18.0		ug/L	P419103	
		Tin	3.0	U	ug/L	P419103	
		Titanium	1.1	I	ug/L	P419103	
		Vanadium	2.0	U	ug/L	P419103	
		Zinc	5.0	U	ug/L	P419103	
	EPA 200.8 Rev. 5.4	Aluminum	105		ug/L	P419103	
		Antimony	0.050	U	ug/L	P419103	
		Arsenic	0.68		ug/L	P419103	
		Barium	27.5		ug/L	P419103	
		Beryllium	0.023	I	ug/L	P419103	
		Boron	8.8		ug/L	P419103	
		Cadmium	0.020	U	ug/L	P419103	
		Chromium	0.40	U	ug/L	P419103	
		Cobalt	0.210		ug/L	P419103	
		Copper	0.40	U	ug/L	P419103	
		Lead	0.20	U	ug/L	P419103	
		Manganese	42.7		ug/L	P419103	
		Molybdenum	0.15	U	ug/L	P419103	
		Nickel	0.50	U	ug/L	P419103	
		Selenium	0.20	U	ug/L	P419103	
		Silver	0.010	U	ug/L	P419103	
		Thallium	0.10	U	ug/L	P419103	
	SM 2340 B-2011	Hardness	13.3		mg/L	P419103	

Sample Location: Pond Creek upstream of Steele Mill Creek Rd Collection Date/Time: 08/31/2022 13:30

Field ID: G4NW0062

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2353582	EPA 200.7 Rev. 4.4	Calcium	4.27		mg/L	P419103	
		Iron	1.43E+03		ug/L	P419103	
		Magnesium	1.53		mg/L	P419103	
		Potassium	0.99	I	mg/L	P419103	
		Sodium	2.4		mg/L	P419103	
		Strontium	16.0		ug/L	P419103	
		Tin	3.1	I	ug/L	P419103	
		Titanium	0.75	U	ug/L	P419103	
		Vanadium	2.0	U	ug/L	P419103	
		Zinc	5.0	U	ug/L	P419103	
	EPA 200.8 Rev. 5.4	Aluminum	69		ug/L	P419103	
		Antimony	0.050	U	ug/L	P419103	
		Arsenic	0.80		ug/L	P419103	
		Barium	27.4		ug/L	P419103	
		Beryllium	0.017	I	ug/L	P419103	
		Boron	11.4		ug/L	P419103	
		Cadmium	0.020	U	ug/L	P419103	
		Chromium	0.40	U	ug/L	P419103	
		Cobalt	0.155		ug/L	P419103	
		Copper	0.40	U	ug/L	P419103	
		Lead	0.20	U	ug/L	P419103	
		Manganese	57.4		ug/L	P419103	
		Molybdenum	0.15	U	ug/L	P419103	
		Nickel	0.50	U	ug/L	P419103	
		Selenium	0.20	U	ug/L	P419103	
		Silver	0.010	U	ug/L	P419103	
		Thallium	0.10	U	ug/L	P419103	
	SM 2340 B-2011	Hardness	16.9		mg/L	P419103	

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P419021

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P419015

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P419103

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

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P419103

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P419470

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P419473

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P419309

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P419173

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P419127

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P419246

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

Reference Method: EPA 8270E
Batch ID: P418990

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
Acetochlor	0.25	U	ng/L
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
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
Avobenzone	100	U	ng/L
Avobenzone	100	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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P418990

Component	Result	Code	Units
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
Dechlorane Plus	30	U	ng/L
Dechlorane Plus	30	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	0.21	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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P418990

Component	Result	Code	Units
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
Napropamide	0.40	U	ng/L
Norflurazon	0.50	U	ng/L
Norflurazon	0.50	U	ng/L
Octinoxate	20	U	ng/L
Octinoxate	20	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxybenzone	10	U	ng/L
Oxybenzone	10	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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P418990

Component	Result	Code	Units
Parathion Methyl	0.55	U	ng/L
Parathion Methyl	0.55	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
Pendimethalin	1.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Phenytol	3.5	U	ng/L
Phenytol	3.5	U	ng/L
Phorate	0.52	U	ng/L
Phorate	0.52	U	ng/L
Prodiatone	0.18	U	ng/L
Prodiatone	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
Terbutylazine	0.42	U	ng/L
Terbutylazine	0.42	U	ng/L
Thiobencarb	0.60	U	ng/L
Thiobencarb	0.60	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Triadimefon	0.25	U	ng/L
Triadimefon	0.25	U	ng/L

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Method Blank Results

Reference Method: EPA 8270E

Batch ID: P419031

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
Chlorothalonil	1.2	U	ng/L
Chlorothalonil	1.2	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cypermethrin	1.5	U	ng/L
Cypermethrin	1.5	U	ng/L
Dacthal	0.15	U	ng/L
Dacthal	0.15	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDT-p,p'	0.25	U	ng/L
DDT-p,p'	0.25	U	ng/L
Delta-BHC	0.40	U	ng/L
Delta-BHC	0.40	U	ng/L
Deltamethrin	1.2	U	ng/L
Deltamethrin	1.2	U	ng/L
Dichlobenil	0.25	U	ng/L
Dichlobenil	0.25	U	ng/L
Dicofol	1.2	U	ng/L
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.40	U	ng/L
Endrin	0.40	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Ketone	0.40	U	ng/L
Endrin Ketone	0.40	U	ng/L
Esfenvalerate	0.75	U	ng/L
Esfenvalerate	0.75	U	ng/L
Ethalfuralin	0.15	U	ng/L
Ethalfuralin	0.15	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P419031

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P419031

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

Reference Method: EPA 8276

Batch ID: P419031

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: P418802

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
AMPA	0.10	U	ug/L
Endothall	0.25	U	ug/L
Glufosinate	0.10	U	ug/L
Glyphosate	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B

Batch ID: P418942

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

Reference Method: EPA 8321B

Batch ID: P419091

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P419091

Component	Result	Code	Units
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.032	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.080	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0040	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: SM 2320 B-2011

Batch ID: P419411

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

Reference Method: SM 2540 C-2011

Batch ID: P419429

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011

Batch ID: P419319

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011

Batch ID: P419389

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011

Batch ID: P419188

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: DEP SOP: NU-094-1
Batch ID: P419021

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	97.3		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P419015

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: P419103

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	108		P	85 - 115
Iron	110		P	85 - 115
Magnesium	106		P	85 - 115
Potassium	104		P	85 - 115
Sodium	104		P	85 - 115
Strontium	104		P	85 - 115
Tin	110		P	85 - 115
Titanium	107		P	85 - 115
Vanadium	106		P	85 - 115
Zinc	109		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P419103

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	102		P	85 - 115
Antimony	104		P	85 - 115
Arsenic	103		P	85 - 115
Barium	105		P	85 - 115
Beryllium	99.9		P	85 - 115
Boron	101		P	85 - 115
Cadmium	99.4		P	85 - 115
Chromium	102		P	85 - 115
Cobalt	98.9		P	85 - 115
Copper	101		P	85 - 115
Lead	92.8		P	85 - 115
Manganese	102		P	85 - 115
Molybdenum	98.8		P	85 - 115
Nickel	102		P	85 - 115
Selenium	101		P	85 - 115
Silver	88.8		P	85 - 115
Thallium	97.4		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P419470

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P419473

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P419309

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	99.6		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P419173

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P419127

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P419246

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	109		P	90 - 110

Reference Method: EPA 8270E
Batch ID: P418990

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	59.7		P	50 - 150
Acetochlor	73.7		P	70 - 121
Alachlor	68.6		P	68 - 119
Ametryn	76.5		P	64 - 139
Atrazine	79.0		P	76 - 120
Atrazine Desethyl	52.1		P	44 - 126
Avobenzone	62.2		P	59 - 206
Azinphos Methyl	90.2		P	43 - 192
Azoxystrobin	79.5		P	36 - 224
Bromacil	71.4		P	52 - 121
Butylate	52.7		P	28 - 91.0
Caffeine	61.3		P	50 - 134
Carbophenothion	74.5		P	56 - 129
Carfentrazone Ethyl	82.5		P	60 - 141
Chlorfenapyr	76.0		P	56 - 115
Chlorpyrifos Ethyl	74.5		P	60 - 118
Chlorpyrifos Methyl	74.8		P	68 - 119
Coumaphos	80.1		P	18 - 250
Cyanazine	83.7		P	61 - 250
Cyprodinil	66.4		P	55 - 145
Dechlorane Plus	64.9		P	50 - 150
Demeton	60.6		P	30 - 159

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P418990

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Diazinon	71.3		P	70 - 123
Difenoconazole	84.9		P	49 - 204
Dimethenamid	64.6		P	64 - 115
Dimethomorph	70.3		P	12 - 219
Disulfoton	68.9		P	44 - 125
Dithiopyr	78.6		P	64 - 115
EPTC	47.2		P	28 - 86.0
Ethion	76.6		P	33 - 125
Ethoprop	68.3		P	64 - 116
Etridiazole	45.1		P	34 - 91.0
Fenamiphos	76.0		P	12 - 127
Fenbuconazole	76.8		P	59 - 151
Fipronil	71.5		P	67 - 129
Fipronil Desulfinyl	84.8		P	65 - 127
Fipronil Sulfide	73.4		P	61 - 116
Fipronil Sulfone	60.5		P	55 - 117
Fluazifop-P-butyl	75.0		P	62 - 127
Fludioxonil	65.0		P	62 - 128
Flumioxazin	81.0		P	33 - 250
Flutolanil	71.9		P	56 - 127
Fluxapyroxad	71.8		P	45 - 128
Fonofos	66.3		P	62 - 111
Hexazinone	79.0		P	46 - 139
Imazalil	32.9		F	38 - 142
Iprodione	84.5		P	47 - 135
Loratadine	71.1		P	10 - 244
Malathion	79.0		P	61 - 139
Metalaxyl	71.1		P	10 - 119
Metolachlor	69.2		P	65 - 118
Metribuzin	71.0		P	51 - 250
Mevinphos	63.1		P	53 - 121
Molinate	57.1		P	42 - 96.0
Myclobutanil	67.6		P	55 - 128
Naled	75.9		P	10 - 98.0
Napropamide	65.9		P	49 - 121
Norflurazon	67.2		P	61 - 126
Octinoxate	56.3		P	30 - 159
Oxadiazon	61.0		P	59 - 116
Oxybenzone	59.1		P	59 - 147
Oxyfluorfen	83.9		P	64 - 137
Parathion Ethyl	77.2		P	70 - 112
Parathion Methyl	88.4		P	76 - 133
PBDE-47	61.3		P	50 - 150
PBDE-99	61.2		P	50 - 150
Pendimethalin	57.7		P	52 - 117
Phenytol	55.3		P	10 - 199
Phorate	58.0		P	48 - 121
Prodiamine	32.2		P	26 - 142
Prometon	66.0		P	43 - 123
Prometryn	73.4		P	66 - 127
Pronamide	86.4		P	75 - 121
Propanil	73.1		P	45 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P418990

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Propargite	71.1		P	42 - 208
Propiconazole	67.5		P	60 - 125
Pyraflufen Ethyl	70.7		P	70 - 138
Pyridaben	72.1		P	35 - 245
Pyriproxyfen	68.3		P	30 - 149
Simazine	76.5		P	72 - 125
Stirophos	81.0		P	29 - 164
Sulfentrazone	76.7		P	21 - 139
Tebuconazole	63.4		P	10 - 115
Terbufos	77.4		P	60 - 123
Terbuthylazine	75.6		P	72 - 115
Thiobencarb	63.6		P	31 - 139
Tri-o-cresyl Phosphate	65.0		P	50 - 150
Triadimefon	66.9		P	65 - 116

Reference Method: EPA 8270E

Batch ID: P419031

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	50.0		P	10 - 92.0
Alpha-BHC	78.0		P	75 - 107
Alpha-Chlordane	60.5		P	50 - 108
Beta-BHC	86.6		P	36 - 138
Beta-Cyfluthrin	53.8		P	20 - 161
Bifenthrin	34.5		P	10 - 119
Chlorothalonil	65.4		P	26 - 186
Cis-Nonachlor	56.2		P	42 - 119
Cypermethrin	53.6		P	22 - 150
Dacthal	75.4		P	72 - 119
DDD-p,p'	64.6		P	45 - 107
DDE-p,p'	61.4		P	48 - 106
DDT-p,p'	72.9		P	48 - 110
Delta-BHC	92.6		P	54 - 140
Deltamethrin	44.1		P	22 - 189
Dichlobenil	77.5		P	36 - 117
Dicofol	72.9		P	46 - 155
Dieldrin	65.9		P	54 - 110
Endosulfan I	69.1		P	59 - 105
Endosulfan II	71.2		P	51 - 118
Endosulfan Sulfate	75.2		P	57 - 121
Endrin	66.8		P	10 - 120
Endrin Aldehyde	64.2		P	34 - 118
Endrin Ketone	122		P	69 - 177
Esfenvalerate	50.4		P	23 - 168
Ethalfuralin	73.4		P	49 - 99.0
Fenpropathrin	54.3		P	34 - 117
Gamma-BHC	71.6		F	72 - 117
Gamma-Chlordane	61.3		P	43 - 106
Heptachlor	63.0		P	41 - 98.0
Heptachlor Epoxide	68.8		P	57 - 106
Hexachlorobenzene	63.5		P	36 - 99.0
Kepone	181		P	16 - 215

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P419031

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Lambda-Cyhalothrin	45.7		P	21 - 177
Methoprene	37.3		P	10 - 119
Methoxychlor	75.3		P	60 - 112
MGK-264	71.4		P	26 - 122
Mirex	46.0		P	10 - 169
Oxychlordane	68.1		P	43 - 105
PCB-1016	92.9		P	48 - 112
PCB-1260	92.8		P	44 - 118
Permethrin	51.8		P	24 - 148
Phenothrin	37.2		P	10 - 106
Piperonyl Butoxide	75.0		P	10 - 139
Prallethrin	64.9		P	17 - 109
Tau-Fluvalinate	44.2		P	13 - 131
Tetramethrin	73.2		P	10 - 132
Trans-Nonachlor	60.5		P	44 - 106
Triclosan Methyl	67.3		P	59 - 109
Trifluralin	66.9		P	44 - 101

Reference Method: EPA 8276

Batch ID: P419031

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	79.9		P	61 - 116
Toxaphene	82.6		P	48 - 124

Reference Method: EPA 8321B

Batch ID: P418802

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	101		P	40 - 150
AMPA	104		P	40 - 150
Endothall	97.1		P	40 - 150
Glufosinate	103		P	40 - 150
Glyphosate	99.6		P	40 - 150
Sucralose	97.7		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P418942

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	53.0		P	40 - 150
Aldicarb	65.9		P	30 - 150
Aldicarb Sulfone	98.1		P	40 - 150
Aldicarb Sulfoxide	88.6		P	40 - 150
Carbaryl	80.8		P	40 - 150
Carbofuran	87.4		P	40 - 150
Methiocarb	98.9		P	40 - 150
Methomyl	92.8		P	40 - 150
Oxamyl	93.8		P	40 - 150
Propoxur	87.6		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P419091

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	70.6		P	40 - 150
2,4,5-T	65.1		P	40 - 150
Acetaminophen	89.9		P	30 - 150
Acetamiprid	84.3		P	40 - 150
Afidopyropen	45.3		P	30 - 150
Bentazon	105		P	30 - 150
Benzovindiflupyr	101		P	40 - 150
Carbamazepine	74.8		P	40 - 150
Clothianidin	81.4		P	40 - 150
Dinotefuran	87.1		P	40 - 150
Diuron	88.7		P	40 - 150
Fenuron	109		P	40 - 150
Fluridone	95.9		P	40 - 150
Hydrocodone	89.5		P	40 - 150
Ibuprofen	59.6		P	40 - 150
Imazapyr	79.6		P	40 - 150
Imidacloprid	99.9		P	40 - 150
Linuron	102		P	40 - 150
Mandestrobin	99.6		P	40 - 150
MCPP	83.0		P	40 - 150
Naproxen	115		P	40 - 150
Primidone	116		P	40 - 150
Pyraclostrobin	89.3		P	40 - 150
Silvex	59.6		P	40 - 150
Thiamethoxam	108		P	40 - 150
Tolfenpyrad	41.5		P	30 - 150
Triclopyr	60.1		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P419411

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.4		P	94 - 106

Reference Method: SM 4500-F- C-2011

Batch ID: P419389

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	102		P	96 - 104

Reference Method: SM 5310 B-2011

Batch ID: P419188

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.0		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P419103

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2353636	Calcium	105		P	80 - 120
2353636	Iron	110	106	P/P	80 - 120
2353636	Magnesium	105		P	80 - 120
2353636	Potassium	101		P	80 - 120
2353636	Sodium	103		P	80 - 120
2353636	Strontium	104	103	P/P	80 - 120
2353636	Tin	110	109	P/P	80 - 120
2353636	Titanium	109	109	P/P	80 - 120
2353636	Vanadium	107	107	P/P	80 - 120
2353636	Zinc	106	107	P/P	80 - 120
2353686	Calcium	111		P	80 - 120
2353686	Iron	111		P	80 - 120
2353686	Magnesium	110		P	80 - 120
2353686	Potassium	114		P	80 - 120
2353686	Sodium	108		P	80 - 120
2353686	Strontium	105		P	80 - 120
2353686	Tin	111		P	80 - 120
2353686	Titanium	110		P	80 - 120
2353686	Vanadium	108		P	80 - 120
2353686	Zinc	109		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P419103

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2353636	Aluminum	99.6	99.7	P/P	80 - 120
2353636	Antimony	106	106	P/P	80 - 120
2353636	Arsenic	104	103	P/P	80 - 120
2353636	Barium	104	105	P/P	80 - 120
2353636	Beryllium	103	99.0	P/P	80 - 120
2353636	Boron	97.9	97.4	P/P	80 - 120
2353636	Cadmium	101	102	P/P	80 - 120
2353636	Chromium	100	100	P/P	80 - 120
2353636	Cobalt	97.8	97.3	P/P	80 - 120
2353636	Copper	96.5	97.2	P/P	80 - 120
2353636	Lead	93.6	93.7	P/P	80 - 120
2353636	Manganese	100	93.5	P/P	80 - 120
2353636	Molybdenum	102	102	P/P	80 - 120
2353636	Nickel	101	99.4	P/P	80 - 120
2353636	Selenium	102	101	P/P	80 - 120
2353636	Silver	86.9	87.8	P/P	80 - 120
2353636	Thallium	99.4	100	P/P	80 - 120
2353686	Aluminum	101		P	80 - 120
2353686	Antimony	105		P	80 - 120
2353686	Arsenic	105		P	80 - 120
2353686	Barium	105		P	80 - 120
2353686	Beryllium	99.9		P	80 - 120
2353686	Boron	99.4		P	80 - 120
2353686	Cadmium	99.0		P	80 - 120
2353686	Chromium	104		P	80 - 120
2353686	Cobalt	98.2		P	80 - 120
2353686	Copper	104		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P419103

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2353686	Lead	93.5		P	80 - 120
2353686	Manganese	102		P	80 - 120
2353686	Molybdenum	100		P	80 - 120
2353686	Nickel	102		P	80 - 120
2353686	Selenium	101		P	80 - 120
2353686	Silver	87.6		P	80 - 120
2353686	Thallium	97.7		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P419470

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2353590	Chloride	100		P	90 - 110
2353615	Chloride	102		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P419473

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2353590	Sulfate	99.8		P	90 - 110
2353615	Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P419309

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2353499	Ammonia-N	98.0	98.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P419173

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2353543	Kjeldahl Nitrogen	99.1	105	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P419127

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2353543	NO2NO3-N	100	99.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P419246

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2352202	Total-P	109	109	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P418990

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2353329	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	77.6	104	P/P	50 - 150
2353329	Acetochlor	66.0	124	P/P	65 - 124

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P418990

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2353329	Alachlor	62.8	87.0	P/P	61 - 121
2353329	Ametryn	63.6	82.0	P/P	52 - 216
2353329	Atrazine	83.7	124	P/P	68 - 133
2353329	Atrazine Desethyl	51.2	65.6	P/P	15 - 160
2353329	Avobenzone	64.2	98.6	P/P	59 - 206
2353329	Azinphos Methyl	73.8	109	P/P	40 - 292
2353329	Azoxystrobin	75.7	113	P/P	12 - 242
2353329	Bromacil	64.2	79.9	P/P	54 - 167
2353329	Butylate	31.1	46.4	P/P	14 - 94.0
2353329	Caffeine	85.2	89.2	P/P	10 - 226
2353329	Carbophenothion	59.2	85.9	P/P	49 - 122
2353329	Carfentrazone Ethyl	61.6	85.2	P/P	53 - 138
2353329	Chlorfenapyr	84.3	109	P/P	50 - 150
2353329	Chlorpyrifos Ethyl	89.8	112	P/P	52 - 122
2353329	Chlorpyrifos Methyl	88.9	115	P/P	66 - 117
2353329	Coumaphos	60.5	85.8	P/P	50 - 220
2353329	Cyanazine	71.2	105	P/P	43 - 245
2353329	Cyprodinil	68.6	92.2	P/P	50 - 150
2353329	Dechlorane Plus	80.9	112	P/P	50 - 150
2353329	Demeton	56.3	80.1	P/P	43 - 188
2353329	Diazinon	77.2	122	P/P	69 - 131
2353329	Difenoconazole	74.4	104	P/P	34 - 231
2353329	Dimethenamid	55.0	77.2	F/P	55 - 118
2353329	Dimethomorph	70.9	98.0	P/P	50 - 150
2353329	Disulfoton	65.4	87.2	P/P	38 - 141
2353329	Dithiopyr	63.5	85.1	P/P	42 - 116
2353329	EPTC	24.9	36.0	P/P	18 - 85.0
2353329	Ethion	51.0	74.9	P/P	10 - 131
2353329	Ethoprop	70.0	83.9	P/P	65 - 129
2353329	Etridiazole	35.4	52.1	F/P	50 - 150
2353329	Fenamiphos	60.4	82.4	P/P	31 - 137
2353329	Fenbuconazole	92.0	129	P/P	57 - 160
2353329	Fipronil	67.7	89.3	P/P	62 - 132
2353329	Fipronil Desulfinyl	67.2	90.9	P/P	57 - 131
2353329	Fipronil Sulfide	52.4	66.3	P/P	15 - 138
2353329	Fipronil Sulfone	47.2	61.7	P/P	21 - 134
2353329	Fluazifop-P-butyl	57.5	84.5	P/P	54 - 133
2353329	Fludioxonil	65.1	97.6	P/P	58 - 127
2353329	Flumioxazin	94.0	124	P/P	33 - 300
2353329	Flutolanil	53.8	89.3	P/P	42 - 130
2353329	Fluxapyroxad	52.7	74.9	P/P	23 - 141
2353329	Fonofos	58.9	80.8	P/P	58 - 119
2353329	Hexazinone	73.1	100	P/P	68 - 172
2353329	Imazail	21.3	66.1	F/P	48 - 283
2353329	Iprodione	62.4	82.4	P/P	38 - 140
2353329	Loratadine	63.8	97.4	P/P	50 - 150
2353329	Malathion	65.4	90.8	P/P	40 - 137
2353329	Metalaxyl	58.6	83.4	P/P	21 - 129
2353329	Metolachlor	58.1	91.3	P/P	55 - 122
2353329	Metribuzin	63.1	98.2	P/P	38 - 187
2353329	Mevinphos	76.9	85.0	P/P	54 - 134
2353329	Molinate	46.0	66.6	P/P	41 - 97.0

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P418990

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2353329	Myclobutanil	66.5	91.4	P/P	56 - 125
2353329	Naled	62.2	86.3	P/P	10 - 108
2353329	Napropamide	55.2	71.6	P/P	50 - 150
2353329	Norflurazon	52.7	62.7	P/P	32 - 122
2353329	Octinoxate	75.8	98.5	P/P	25 - 150
2353329	Oxadiazon	46.5	65.6	P/P	40 - 119
2353329	Oxybenzone	70.0	90.0	P/P	59 - 147
2353329	Oxyfluorfen	90.0	119	P/P	61 - 153
2353329	Parathion Ethyl	68.1	92.8	P/P	59 - 130
2353329	Parathion Methyl	82.8	111	P/P	65 - 155
2353329	PBDE-47	73.6	94.6	P/P	50 - 150
2353329	PBDE-99	70.7	93.8	P/P	50 - 150
2353329	Pendimethalin	54.1	73.3	P/P	49 - 138
2353329	Phenytoin	56.8	72.1	P/P	50 - 200
2353329	Phorate	63.4	72.0	P/P	54 - 161
2353329	Prodiamine	48.0	65.3	P/P	33 - 161
2353329	Prometon	55.4	78.1	P/P	48 - 140
2353329	Prometryn	61.6	85.8	P/P	55 - 134
2353329	Pronamide	74.0	91.2	P/P	66 - 137
2353329	Propanil	61.2	82.4	P/P	50 - 150
2353329	Propargite	94.4	140	P/P	50 - 200
2353329	Propiconazole	54.1	68.7	P/P	36 - 150
2353329	Pyraflufen Ethyl	69.9	115	P/P	50 - 150
2353329	Pyridaben	62.0	88.8	P/P	50 - 200
2353329	Pyriproxyfen	48.9	74.1	P/P	10 - 165
2353329	Simazine	62.9	78.3	P/P	57 - 145
2353329	Stirophos	51.9	69.4	P/P	50 - 150
2353329	Sulfentrazone	59.1	74.9	P/P	34 - 140
2353329	Tebuconazole	39.8	52.8	P/P	10 - 127
2353329	Terbufos	79.4	97.8	P/P	59 - 138
2353329	Terbutylazine	65.8	93.3	F/P	68 - 119
2353329	Thiobencarb	53.1	70.2	P/P	50 - 150
2353329	Tri-o-cresyl Phosphate	73.3	93.8	P/P	50 - 150
2353329	Triadimefon	53.4	67.7	P/P	50 - 150

Reference Method: EPA 8270E
Batch ID: P419031

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2353345	PCB-1016	89.2	94.5	P/P	46 - 111
2353345	PCB-1260	91.1	81.9	P/P	45 - 114
2353760	Aldrin	62.3	59.9	P/P	20 - 82.0
2353760	Alpha-BHC	91.8	98.2	P/P	71 - 109
2353760	Alpha-Chlordane	73.5	74.9	P/P	42 - 106
2353760	Beta-BHC	118	116	P/P	69 - 180
2353760	Beta-Cyfluthrin	88.8	86.3	P/P	18 - 175
2353760	Bifenthrin	65.9	66.6	P/P	21 - 128
2353760	Chlorothalonil	82.7	77.1	P/P	10 - 300
2353760	Cis-Nonachlor	62.8	63.1	P/P	34 - 106
2353760	Cypermethrin	88.8	86.8	P/P	22 - 158
2353760	Dacthal	91.7	89.0	P/P	54 - 116
2353760	DDD-p,p'	71.4	67.0	P/P	34 - 107

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P419031

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2353760	DDE-p,p'	68.8	69.7	P/P	33 - 110
2353760	DDT-p,p'	86.3	84.4	P/P	50 - 122
2353760	Delta-BHC	133	125	P/P	77 - 193
2353760	Deltamethrin	62.1	75.3	P/P	10 - 195
2353760	Dichlobenil	84.7	82.2	P/P	25 - 113
2353760	Dicofol	91.8	91.0	P/P	38 - 247
2353760	Dieldrin	74.7	75.1	P/P	45 - 118
2353760	Endosulfan I	77.2	78.3	P/P	51 - 106
2353760	Endosulfan II	83.6	81.2	P/P	37 - 122
2353760	Endosulfan Sulfate	86.1	85.0	P/P	43 - 132
2353760	Endrin	73.6	75.4	P/P	29 - 101
2353760	Endrin Aldehyde	66.3	68.3	P/P	19 - 110
2353760	Endrin Ketone	69.6	67.2	P/P	60 - 140
2353760	Esfenvalerate	88.3	87.3	P/P	26 - 199
2353760	Ethalfuralin	76.0	82.5	P/P	45 - 99.0
2353760	Fenpropathrin	73.7	74.2	P/P	35 - 120
2353760	Gamma-BHC	99.8	96.7	P/P	63 - 128
2353760	Gamma-Chlordane	74.1	73.3	P/P	40 - 104
2353760	Heptachlor	68.6	68.3	P/P	36 - 97.0
2353760	Heptachlor Epoxide	78.6	76.7	P/P	49 - 184
2353760	Hexachlorobenzene	75.6	77.3	P/P	39 - 96.0
2353760	Kepone	199	193	P/P	10 - 217
2353760	Lambda-Cyhalothrin	82.7	80.0	P/P	21 - 193
2353760	Methoprene	55.3	62.1	P/P	20 - 106
2353760	Methoxychlor	97.2	95.9	P/P	53 - 118
2353760	MGK-264	87.7	88.0	P/P	40 - 118
2353760	Mirex	58.8	59.7	P/P	26 - 92.0
2353760	Oxychlordane	77.3	76.6	P/P	44 - 99.0
2353760	Permethrin	83.0	83.8	P/P	33 - 182
2353760	Phenothrin	65.0	65.5	P/P	10 - 129
2353760	Piperonyl Butoxide	90.8	89.5	P/P	10 - 211
2353760	Prallethrin	76.8	80.7	P/P	24 - 113
2353760	Tau-Fluvalinate	82.7	83.0	P/P	14 - 149
2353760	Tetramethrin	107	107	P/P	17 - 151
2353760	Trans-Nonachlor	72.8	75.1	P/P	42 - 102
2353760	Triclosan Methyl	75.6	77.0	P/P	48 - 108
2353760	Trifluralin	76.7	75.2	P/P	47 - 96.0

Reference Method: EPA 8276

Batch ID: P419031

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2353345	Chlordane	78.0	72.8	P/P	53 - 126
2353345	Toxaphene	78.7	77.5	P/P	56 - 211

Reference Method: EPA 8321B

Batch ID: P418802

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2352891	Acesulfame K	99.6	98.9	P/P	40 - 150
2352891	AMPA	105	108	P/P	40 - 150
2352891	Endothall	92.9	96.0	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P418802

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2352891	Glufosinate	96.5	94.1	P/P	40 - 150
2352891	Glyphosate	87.9	83.3	P/P	40 - 150
2352891	Sucralose	95.8	95.0	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P418942

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2353621	3-Hydroxycarbofuran	58.8	47.4	P/P	40 - 150
2353621	Aldicarb	62.6	73.7	P/P	30 - 150
2353621	Aldicarb Sulfone	85.5	88.3	P/P	40 - 150
2353621	Aldicarb Sulfoxide	48.7	45.7	P/P	40 - 150
2353621	Carbaryl	96.6	77.3	P/P	40 - 150
2353621	Carbofuran	90.6	70.4	P/P	40 - 150
2353621	Methiocarb	105	90.6	P/P	40 - 150
2353621	Methomyl	92.6	85.9	P/P	40 - 150
2353621	Oxamyl	94.6	86.5	P/P	40 - 150
2353621	Propoxur	82.2	75.5	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P419091

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2353620	2,4-D	71.7	66.0	P/P	40 - 150
2353620	2,4,5-T	64.5	68.3	P/P	40 - 150
2353620	Acetaminophen	80.1	90.7	P/P	30 - 150
2353620	Acetamiprid	56.4	54.3	P/P	40 - 150
2353620	Afidopyropen	39.6	33.7	P/P	30 - 150
2353620	Bentazon	107	107	P/P	30 - 150
2353620	Benzovindiflupyr	93.6	91.6	P/P	40 - 150
2353620	Carbamazepine	88.5	93.3	P/P	40 - 150
2353620	Clothianidin	87.5	83.3	P/P	40 - 150
2353620	Dinotefuran	91.7	96.9	P/P	40 - 150
2353620	Diuron	84.1	84.6	P/P	40 - 150
2353620	Fenuron	96.2	87.2	P/P	40 - 150
2353620	Fluridone	83.4	106	P/P	40 - 150
2353620	Hydrocodone	87.9	118	P/P	40 - 150
2353620	Ibuprofen	62.6	55.4	P/P	40 - 150
2353620	Imazapyr	67.6	78.3	P/P	40 - 150
2353620	Imidacloprid	95.6	107	P/P	40 - 150
2353620	Linuron	86.4	110	P/P	40 - 150
2353620	Mandestrobin	97.6	99.8	P/P	40 - 150
2353620	MCPP	70.8	75.1	P/P	40 - 150
2353620	Naproxen	64.6	87.4	P/P	40 - 150
2353620	Primidone	79.2	97.3	P/P	40 - 150
2353620	Pyraclostrobin	93.8	101	P/P	40 - 150
2353620	Silvex	66.0	64.8	P/P	40 - 150
2353620	Thiamethoxam	77.7	115	P/P	40 - 150
2353620	Tolfenpyrad	59.1	63.6	P/P	30 - 150
2353620	Triclopyr	57.3	66.9	P/P	40 - 150

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: SM 4500-F- C-2011
Batch ID: P419389

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2353650	Fluoride	99.9	98.0	P/P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P419188

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2353844	Organic Carbon	99.8	101	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P419021

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353615	Color (true)	0.964	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P419015

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353547	Turbidity	14.7	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P419103

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353636	Calcium	2.26	Spike	P	0 - 20
2353636	Iron	3.28	Spike	P	0 - 20
2353636	Magnesium	3.69	Spike	P	0 - 20
2353636	Potassium	2.49	Spike	P	0 - 20
2353636	Sodium	1.54	Spike	P	0 - 20
2353636	Strontium	0.885	Spike	P	0 - 20
2353636	Tin	1.01	Spike	P	0 - 20
2353636	Titanium	0.407	Spike	P	0 - 20
2353636	Vanadium	0.0197	Spike	P	0 - 20
2353636	Zinc	0.246	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P419103

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353636	Aluminum	0.0665	Spike	P	0 - 20
2353636	Antimony	0.276	Spike	P	0 - 20
2353636	Arsenic	1.06	Spike	P	0 - 20
2353636	Barium	1.12	Spike	P	0 - 20
2353636	Beryllium	3.66	Spike	P	0 - 20
2353636	Boron	0.254	Spike	P	0 - 20
2353636	Cadmium	0.672	Spike	P	0 - 20
2353636	Chromium	0.279	Spike	P	0 - 20
2353636	Cobalt	0.515	Spike	P	0 - 20
2353636	Copper	0.734	Spike	P	0 - 20
2353636	Lead	0.104	Spike	P	0 - 20
2353636	Manganese	1.13	Spike	P	0 - 20
2353636	Molybdenum	0.0878	Spike	P	0 - 20
2353636	Nickel	1.67	Spike	P	0 - 20
2353636	Selenium	0.515	Spike	P	0 - 20
2353636	Silver	0.959	Spike	P	0 - 20
2353636	Thallium	0.972	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P419470

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353590	Chloride	0.461	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P419473

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353590	Sulfate	0.382	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P419309

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353499	Ammonia-N	0.465	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P419173

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353543	Kjeldahl Nitrogen	3.08	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P419127

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353543	NO2NO3-N	0.482	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P419246

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352202	Total-P	0.0224	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P418990

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353329	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	29.3	Spike	P	0 - 30
2353329	Acetochlor	54.2	Spike	F	0 - 27
2353329	Alachlor	32.4	Spike	F	0 - 27
2353329	Ametryn	25.2	Spike	P	0 - 34
2353329	Atrazine	25.4	Spike	P	0 - 41
2353329	Atrazine Desethyl	24.6	Spike	P	0 - 38
2353329	Avobenzene	42.1	Spike	F	0 - 30
2353329	Azinphos Methyl	38.9	Spike	P	0 - 62
2353329	Azoxystrobin	28.3	Spike	P	0 - 32

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P418990

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353329	Bromacil	21.8	Spike	P	0 - 30
2353329	Butylate	39.5	Spike	P	0 - 59
2353329	Caffeine	4.54	Spike	P	0 - 60
2353329	Carbophenothion	36.8	Spike	F	0 - 25
2353329	Carfentrazone Ethyl	32.1	Spike	F	0 - 26
2353329	Chlorfenapyr	25.3	Spike	P	0 - 30
2353329	Chlorpyrifos Ethyl	22.4	Spike	P	0 - 27
2353329	Chlorpyrifos Methyl	26.0	Spike	F	0 - 26
2353329	Coumaphos	34.7	Spike	F	0 - 30
2353329	Cyanazine	38.1	Spike	P	0 - 58
2353329	Cyprodinil	29.3	Spike	P	0 - 30
2353329	Dechlorane Plus	32.2	Spike	F	0 - 30
2353329	Demeton	34.8	Spike	F	0 - 25
2353329	Diazinon	44.9	Spike	F	0 - 29
2353329	Difenoconazole	33.5	Spike	F	0 - 25
2353329	Dimethenamid	33.7	Spike	F	0 - 30
2353329	Dimethomorph	32.1	Spike	F	0 - 30
2353329	Disulfoton	28.6	Spike	P	0 - 33
2353329	Dithiopyr	27.3	Spike	F	0 - 22
2353329	EPTC	36.5	Spike	P	0 - 38
2353329	Ethion	37.9	Spike	P	0 - 79
2353329	Ethoprop	18.1	Spike	P	0 - 23
2353329	Etridiazole	38.2	Spike	F	0 - 30
2353329	Fenamiphos	30.9	Spike	P	0 - 58
2353329	Fenbuconazole	33.4	Spike	P	0 - 37
2353329	Fipronil	27.5	Spike	P	0 - 33
2353329	Fipronil Desulfinyl	29.9	Spike	F	0 - 26
2353329	Fipronil Sulfide	23.4	Spike	P	0 - 37
2353329	Fipronil Sulfone	26.6	Spike	P	0 - 50
2353329	Fluazifop-P-butyl	38.1	Spike	F	0 - 24
2353329	Fludioxonil	39.9	Spike	F	0 - 26
2353329	Flumioxazin	27.2	Spike	P	0 - 37
2353329	Flutolanil	28.3	Spike	F	0 - 26
2353329	Fluxapyroxad	30.6	Spike	P	0 - 34
2353329	Fonofos	31.3	Spike	F	0 - 27
2353329	Hexazinone	31.2	Spike	P	0 - 36
2353329	Imazalil	102	Spike	F	0 - 65
2353329	Iprodione	27.6	Spike	P	0 - 33
2353329	Loratadine	41.6	Spike	F	0 - 30
2353329	Malathion	32.5	Spike	P	0 - 44
2353329	Metalaxyl	34.9	Spike	P	0 - 38
2353329	Metolachlor	31.2	Spike	P	0 - 36
2353329	Metribuzin	43.5	Spike	P	0 - 63
2353329	Mevinphos	9.97	Spike	P	0 - 26
2353329	Molinate	36.6	Spike	P	0 - 40
2353329	Myclobutanil	31.6	Spike	F	0 - 21
2353329	Naled	32.5	Spike	F	0 - 26
2353329	Napropamide	25.9	Spike	P	0 - 30
2353329	Norflurazon	17.4	Spike	P	0 - 24
2353329	Octinoxate	26.0	Spike	P	0 - 30
2353329	Oxadiazon	34.1	Spike	F	0 - 27

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P418990

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353329	Oxybenzone	25.0	Spike	P	0 - 30
2353329	Oxyfluorfen	27.8	Spike	F	0 - 24
2353329	Parathion Ethyl	30.6	Spike	F	0 - 28
2353329	Parathion Methyl	29.3	Spike	F	0 - 27
2353329	PBDE-47	24.9	Spike	P	0 - 30
2353329	PBDE-99	28.2	Spike	P	0 - 30
2353329	Pendimethalin	30.1	Spike	P	0 - 31
2353329	Phenytoin	23.8	Spike	P	0 - 30
2353329	Phorate	12.8	Spike	P	0 - 27
2353329	Prodiamine	30.6	Spike	P	0 - 52
2353329	Prometon	34.1	Spike	F	0 - 31
2353329	Prometryn	32.9	Spike	F	0 - 28
2353329	Pronamide	20.8	Spike	P	0 - 26
2353329	Propanil	29.6	Spike	P	0 - 30
2353329	Propargite	39.1	Spike	F	0 - 30
2353329	Propiconazole	23.8	Spike	P	0 - 31
2353329	Pyraflufen Ethyl	48.7	Spike	F	0 - 30
2353329	Pyridaben	35.6	Spike	F	0 - 30
2353329	Pyriproxyfen	41.1	Spike	P	0 - 50
2353329	Simazine	21.8	Spike	P	0 - 29
2353329	Stiropfos	28.9	Spike	P	0 - 30
2353329	Sulfentrazone	23.5	Spike	P	0 - 33
2353329	Tebuconazole	24.7	Spike	P	0 - 44
2353329	Terbufos	20.7	Spike	P	0 - 29
2353329	Terbuthylazine	34.6	Spike	F	0 - 27
2353329	Thiobencarb	27.7	Spike	P	0 - 30
2353329	Tri-o-cresyl Phosphate	24.6	Spike	P	0 - 30
2353329	Triadimefon	23.5	Spike	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P419031

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353345	PCB-1016	5.78	Spike	P	0 - 32
2353345	PCB-1260	10.6	Spike	P	0 - 31
2353760	Aldrin	3.94	Spike	P	0 - 41
2353760	Alpha-BHC	6.64	Spike	P	0 - 25
2353760	Alpha-Chlordane	1.93	Spike	P	0 - 33
2353760	Beta-BHC	1.79	Spike	P	0 - 36
2353760	Beta-Cyfluthrin	2.86	Spike	P	0 - 42
2353760	Bifenthrin	1.06	Spike	P	0 - 53
2353760	Chlorothalonil	7.04	Spike	P	0 - 71
2353760	Cis-Nonachlor	0.400	Spike	P	0 - 29
2353760	Cypermethrin	2.31	Spike	P	0 - 40
2353760	Dacthal	3.05	Spike	P	0 - 26
2353760	DDD-p,p'	5.56	Spike	P	0 - 39
2353760	DDE-p,p'	1.35	Spike	P	0 - 33
2353760	DDT-p,p'	1.99	Spike	P	0 - 40
2353760	Delta-BHC	5.84	Spike	P	0 - 37
2353760	Deltamethrin	19.2	Spike	P	0 - 100

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P419031

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353760	Dichlobenil	2.95	Spike	P	0 - 40
2353760	Dicofol	0.878	Spike	P	0 - 31
2353760	Dieldrin	0.562	Spike	P	0 - 27
2353760	Endosulfan I	1.45	Spike	P	0 - 23
2353760	Endosulfan II	2.97	Spike	P	0 - 28
2353760	Endosulfan Sulfate	1.31	Spike	P	0 - 38
2353760	Endrin	2.50	Spike	P	0 - 63
2353760	Endrin Aldehyde	2.98	Spike	P	0 - 60
2353760	Endrin Ketone	3.51	Spike	P	0 - 37
2353760	Esfenvalerate	1.08	Spike	P	0 - 52
2353760	Ethalfuralin	8.24	Spike	P	0 - 23
2353760	Fenpropathrin	0.729	Spike	P	0 - 32
2353760	Gamma-BHC	3.19	Spike	P	0 - 17
2353760	Gamma-Chlordane	1.13	Spike	P	0 - 40
2353760	Heptachlor	0.416	Spike	P	0 - 29
2353760	Heptachlor Epoxide	2.54	Spike	P	0 - 25
2353760	Hexachlorobenzene	2.31	Spike	P	0 - 36
2353760	Kepone	3.11	Spike	P	0 - 93
2353760	Lambda-Cyhalothrin	3.31	Spike	P	0 - 55
2353760	Methoprene	11.4	Spike	P	0 - 53
2353760	Methoxychlor	1.33	Spike	P	0 - 29
2353760	MGK-264	0.423	Spike	P	0 - 35
2353760	Mirex	1.45	Spike	P	0 - 46
2353760	Oxychlordane	0.912	Spike	P	0 - 29
2353760	Permethrin	1.02	Spike	P	0 - 44
2353760	Phenothrin	0.849	Spike	P	0 - 56
2353760	Piperonyl Butoxide	1.47	Spike	P	0 - 100
2353760	Prallethrin	4.97	Spike	P	0 - 42
2353760	Tau-Fluvalinate	0.410	Spike	P	0 - 54
2353760	Tetramethrin	0.277	Spike	P	0 - 51
2353760	Trans-Nonachlor	3.10	Spike	P	0 - 37
2353760	Triclosan Methyl	1.87	Spike	P	0 - 31
2353760	Trifluralin	2.00	Spike	P	0 - 30

Reference Method: EPA 8276

Batch ID: P419031

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353345	Chlordane	6.83	Spike	P	0 - 25
2353345	Toxaphene	1.48	Spike	P	0 - 26

Reference Method: EPA 8321B

Batch ID: P418802

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352891	Acesulfame K	0.674	Spike	P	0 - 30
2352891	AMPA	2.20	Spike	P	0 - 30
2352891	Endothall	3.24	Spike	P	0 - 30
2352891	Glufosinate	2.45	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P418802

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352891	Glyphosate	5.37	Spike	P	0 - 30
2352891	Sucralose	0.783	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P418942

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353621	3-Hydroxycarbofuran	21.4	Spike	P	0 - 30
2353621	Aldicarb	16.3	Spike	P	0 - 30
2353621	Aldicarb Sulfone	3.25	Spike	P	0 - 30
2353621	Aldicarb Sulfoxide	6.48	Spike	P	0 - 30
2353621	Carbaryl	22.2	Spike	P	0 - 30
2353621	Carbofuran	25.1	Spike	P	0 - 30
2353621	Methiocarb	15.1	Spike	P	0 - 30
2353621	Methomyl	7.52	Spike	P	0 - 30
2353621	Oxamyl	8.92	Spike	P	0 - 30
2353621	Propoxur	8.57	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P419091

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353620	2,4-D	8.28	Spike	P	0 - 30
2353620	2,4,5-T	5.75	Spike	P	0 - 30
2353620	Acetaminophen	12.4	Spike	P	0 - 30
2353620	Acetamiprid	3.84	Spike	P	0 - 30
2353620	Afidopyropen	16.1	Spike	P	0 - 30
2353620	Bentazon	0.0786	Spike	P	0 - 30
2353620	Benzovindiflupyr	2.20	Spike	P	0 - 30
2353620	Carbamazepine	4.77	Spike	P	0 - 30
2353620	Clothianidin	4.86	Spike	P	0 - 30
2353620	Dinotefuran	5.51	Spike	P	0 - 30
2353620	Diuron	0.445	Spike	P	0 - 30
2353620	Fenuron	9.79	Spike	P	0 - 30
2353620	Fluridone	23.5	Spike	P	0 - 30
2353620	Hydrocodone	29.2	Spike	P	0 - 30
2353620	Ibuprofen	12.2	Spike	P	0 - 30
2353620	Imazapyr	12.4	Spike	P	0 - 30
2353620	Imidacloprid	9.49	Spike	P	0 - 30
2353620	Linuron	23.9	Spike	P	0 - 30
2353620	Mandestrobin	2.22	Spike	P	0 - 30
2353620	MCPP	5.91	Spike	P	0 - 30
2353620	Naproxen	30.0	Spike	P	0 - 30
2353620	Primidone	20.5	Spike	P	0 - 30
2353620	Pyraclostrobin	7.29	Spike	P	0 - 30
2353620	Silvex	1.78	Spike	P	0 - 30
2353620	Thiamethoxam	38.8	Spike	F	0 - 30
2353620	Tolfenpyrad	7.47	Spike	P	0 - 30
2353620	Triclopyr	15.6	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: SM 2320 B-2011
Batch ID: P419411

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353959	Total Alkalinity	0.145	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2011
Batch ID: P419429

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353393	TDS	2.89	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P419389

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353650	Fluoride	1.45	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P419188

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353844	Organic Carbon	1.08	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2353575
Field Sample ID: G4NW0382

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	79.8	P	30 - 160

Lab Sample ID: 2353576
Field Sample ID: G4NW0382

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	73.0	P	30 - 160
EPA 8321B	Acetaminophen-d4	66.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	83.1	P	30 - 160
EPA 8321B	Diuron-d6	81.6	P	30 - 160
EPA 8321B	Endothall-d6	103	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	93.9	P	30 - 160
EPA 8321B	Ibuprofen-d3	95.6	P	30 - 160
EPA 8321B	Primidone-d5	55.5	P	30 - 160
EPA 8321B	Sucralose-d6	99.2	P	30 - 160

Lab Sample ID: 2353577
Field Sample ID: G4NW0382

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	114	P	29 - 130
EPA 8270E	Decachlorobiphenyl	114	P	30 - 118
EPA 8270E	Tetrachloro-m-xylene	85.3	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	84.6	P	30 - 97.0
EPA 8276	Decachlorobiphenyl	105	F	30 - 101
EPA 8276	PCNB	104	P	48 - 121

Lab Sample ID: 2353578
Field Sample ID: G4NW0382

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	50.2	P	20 - 200
EPA 8270E	Simazine-d10	77.7	P	71 - 140
EPA 8270E	Terbufos-d10	82.3	P	62 - 131
EPA 8270E	Terphenyl-d14	60.5	P	52 - 141

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A114489

Included Lab Sample IDs: 2353562, 2353564

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

Reference Method: DEP SOP: NU-094-1

Run ID: A114493

Included Lab Sample IDs: 2353562, 2353564

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	103	97.8	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A114545

Included Lab Sample IDs: 2353563, 2353565

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

Reference Method: EPA 8321B

Run ID: A114551

Included Lab Sample IDs: 2353576

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	107	104	P/P	60 - 160
Sucralose	102	101	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A114552

Included Lab Sample IDs: 2353576

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	103	101	P/P	60 - 160
Endothall	88.4	85.8	P/P	60 - 160
Glufosinate	92.7	95.7	P/P	60 - 160
Glyphosate	105	105	P/P	60 - 160

Reference Method: SM 5310 B-2011

Run ID: A114572

Included Lab Sample IDs: 2353563, 2353565

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	94.7	96.6	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A114598

Included Lab Sample IDs: 2353578

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	102		P	80 - 120
Alachlor	99.6		P	80 - 120
Ametryn	107		P	80 - 120
Atrazine	99.1		P	80 - 120
Atrazine Desethyl	104		P	80 - 120

Quality Assurance Report

Calibration Verification

Reference Method: EPA 8270E
Run ID: A114598
Included Lab Sample IDs: 2353578

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Azinphos Methyl	114		P	80 - 120
Azoxystrobin	98.0		P	80 - 120
Bromacil	107		P	80 - 120
Butylate	101		P	80 - 120
Caffeine	89.3		P	80 - 120
Carbophenothion	107		P	80 - 120
Carfentrazone Ethyl	105		P	80 - 120
Chlorfenapyr	108		P	80 - 120
Chlorpyrifos Ethyl	104		P	80 - 120
Chlorpyrifos Methyl	102		P	80 - 120
Coumaphos	110		P	80 - 120
Cyanazine	105		P	80 - 120
Cyprodinil	106		P	80 - 120
Demeton	104		P	80 - 120
Diazinon	101		P	80 - 120
Difenoconazole	106		P	80 - 120
Dimethenamid	106		P	80 - 120
Dimethomorph	99.1		P	80 - 120
Disulfoton	99.7		P	80 - 120
Dithiopyr	107		P	80 - 120
EPTC	99.7		P	80 - 120
Ethion	106		P	80 - 120
Ethoprop	102		P	80 - 120
Etridiazole	98.0		P	80 - 120
Fenamiphos	97.2		P	80 - 120
Fenbuconazole	105		P	80 - 120
Fipronil	99.6		P	80 - 120
Fipronil Desulfinyl	107		P	80 - 120
Fipronil Sulfide	106		P	80 - 120
Fipronil Sulfone	104		P	80 - 120
Fluazifop-P-butyl	106		P	80 - 120
Fludioxonil	98.4		P	80 - 120
Flumioxazin	107		P	80 - 120
Flutolanil	97.6		P	80 - 120
Fluxapyroxad	108		P	80 - 120
Fonofos	103		P	80 - 120
Hexazinone	99.9		P	80 - 120
Imazalil	101		P	80 - 120
Iprodione	105		P	80 - 120
Loratadine	95.1		P	80 - 120
Malathion	104		P	80 - 120
Metalaxyl	100		P	80 - 120
Metolachlor	100		P	80 - 120
Metribuzin	99.7		P	80 - 120
Mevinphos	99.0		P	80 - 120
Molinate	99.0		P	80 - 120
Myclobutanil	104		P	80 - 120
Naled	118		P	80 - 120
Napropamide	98.7		P	80 - 120
Norflurazon	102		P	80 - 120
Oxadiazon	100		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A114598
Included Lab Sample IDs: 2353578

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Oxyfluorfen	109		P	80 - 120
Parathion Ethyl	98.1		P	80 - 120
Parathion Methyl	100		P	80 - 120
Pendimethalin	92.3		P	80 - 120
Phenytoin	105		P	80 - 120
Phorate	99.7		P	80 - 120
Prodiamine	112		P	80 - 120
Prometon	97.3		P	80 - 120
Prometryn	103		P	80 - 120
Pronamide	95.3		P	80 - 120
Propanil	94.4		P	80 - 120
Propargite	104		P	80 - 120
Propiconazole	106		P	80 - 120
Pyraflufen Ethyl	99.3		P	80 - 120
Pyridaben	106		P	80 - 120
Pyriproxyfen	103		P	80 - 120
Simazine	93.9		P	80 - 120
Stirophos	109		P	80 - 120
Sulfentrazone	112		P	80 - 120
Tebuconazole	105		P	80 - 120
Terbufos	102		P	80 - 120
Terbuthylazine	101		P	80 - 120
Thiobencarb	98.4		P	80 - 120
Triadimefon	100		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A114600
Included Lab Sample IDs: 2353562, 2353564

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

Reference Method: EPA 8321B
Run ID: A114605
Included Lab Sample IDs: 2353576

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	99.8	120	P/P	50 - 150
2,4,5-T	99.9	133	P/P	50 - 150
3-Hydroxycarbofuran	78.1	98.9	P/P	60 - 150
Acetaminophen	90.4	102	P/P	60 - 160
Acetamiprid	90.8	90.4	P/P	50 - 150
Afidopyropen	105	147	P/P	50 - 150
Aldicarb	99.3	91.6	P/P	60 - 150
Aldicarb Sulfone	101	87.7	P/P	50 - 150
Aldicarb Sulfoxide	77.2	94.8	P/P	50 - 150
Bentazon	95.2	114	P/P	50 - 160
Benzovindiflupyr	105	126	P/P	50 - 150
Carbamazepine	117	123	P/P	60 - 150
Carbaryl	113	119	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A114605
Included Lab Sample IDs: 2353575

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Carbofuran	83.9	100	P/P	50 - 150
Clothianidin	106	104	P/P	60 - 150
Dinotefuran	84.1	108	P/P	50 - 150
Diuron	100	139	P/P	60 - 160
Fenuron	95.2	112	P/P	60 - 150
Fluridone	113	125	P/P	60 - 160
Hydrocodone	92.9	108	P/P	60 - 150
Ibuprofen	109	115	P/P	50 - 160
Imazapyr	90.1	96.7	P/P	50 - 150
Imidacloprid	85.7	138	P/P	60 - 150
Linuron	117	140	P/P	60 - 150
Mandestrobin	112	127	P/P	50 - 150
MCPP	105	118	P/P	50 - 150
Methiocarb	112	125	P/P	50 - 150
Methomyl	96.5	95.3	P/P	50 - 150
Naproxen	137	144	P/P	50 - 160
Oxamyl	85.7	106	P/P	50 - 150
Primidone	93.7	108	P/P	60 - 150
Propoxur	114	102	P/P	50 - 150
Pyraclostrobin	114	124	P/P	60 - 150
Silvex	96.6	108	P/P	50 - 150
Thiamethoxam	97.4	117	P/P	50 - 150
Tolfenpyrad	118	124	P/P	60 - 150
Triclopyr	105	120	P/P	50 - 150

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A114613
Included Lab Sample IDs: 2353563, 2353565

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.7	99.1	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A114624
Included Lab Sample IDs: 2353563, 2353565

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

Reference Method: EPA 8270E
Run ID: A114625
Included Lab Sample IDs: 2353577

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	99.4		P	80 - 120
Alpha-BHC	97.7		P	80 - 120
Alpha-Chlordane	108		P	80 - 120
Beta-BHC	87.8		P	80 - 120
Beta-Cyfluthrin	101		P	80 - 120
Bifenthrin	97.8		P	80 - 120
Chlorothalonil	95.2		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A114625
Included Lab Sample IDs: 2353577

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cis-Nonachlor	101		P	80 - 120
Cypermethrin	95.9		P	80 - 120
Dacthal	104		P	80 - 120
DDD-p,p'	101		P	80 - 120
DDE-p,p'	102		P	80 - 120
DDT-p,p'	99.3		P	80 - 120
Delta-BHC	99.3		P	80 - 120
Deltamethrin	93.5		P	80 - 120
Dichlobenil	97.4		P	80 - 120
Dicofol	97.9		P	80 - 120
Dieldrin	103		P	80 - 120
Endosulfan I	107		P	80 - 120
Endosulfan II	110		P	80 - 120
Endosulfan Sulfate	98.4		P	80 - 120
Endrin	105		P	80 - 120
Endrin Aldehyde	90.1		P	80 - 120
Endrin Ketone	111		P	80 - 120
Esfenvalerate	102		P	80 - 120
Ethalfuralin	101		P	80 - 120
Fenpropathrin	103		P	80 - 120
Gamma-BHC	99.8		P	80 - 120
Gamma-Chlordane	102		P	80 - 120
Heptachlor	97.1		P	80 - 120
Heptachlor Epoxide	102		P	80 - 120
Hexachlorobenzene	99.4		P	80 - 120
Kepone	71.8*		F	80 - 120
Lambda-Cyhalothrin	103		P	80 - 120
Methoprene	100		P	80 - 120
Methoxychlor	96.6		P	80 - 120
MGK-264	103		P	80 - 120
Mirex	101		P	80 - 120
Oxychlordane	102		P	80 - 120
Permethrin	98.5		P	80 - 120
Phenothrin	99.8		P	80 - 120
Piperonyl Butoxide	102		P	80 - 120
Prallethrin	98.1		P	80 - 120
Tau-Fluvalinate	103		P	80 - 120
Tetramethrin	93.9		P	80 - 120
Trans-Nonachlor	101		P	80 - 120
Triclosan Methyl	105		P	80 - 120
Trifluralin	99.9		P	80 - 120

Reference Method: EPA 8270E
Run ID: A114630
Included Lab Sample IDs: 2353577

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	109		P	80 - 120
PCB-1260	98.6		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A114650

Included Lab Sample IDs: 2353563, 2353565

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.5	99.2	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A114659

Included Lab Sample IDs: 2353579, 2353580, 2353581, 2353582

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	99.1	96.0	P/P	90 - 110
Antimony	101	98.8	P/P	90 - 110
Arsenic	103	100	P/P	90 - 110
Barium	99.8	96.7	P/P	90 - 110
Beryllium	99.5	96.6	P/P	90 - 110
Boron	94.6	91.1	P/P	90 - 110
Cadmium	103	101	P/P	90 - 110
Chromium	103	100	P/P	90 - 110
Cobalt	98.9	95.6	P/P	90 - 110
Copper	103	99.7	P/P	90 - 110
Manganese	103	100	P/P	90 - 110
Molybdenum	98.5	96.4	P/P	90 - 110
Nickel	102	98.6	P/P	90 - 110
Selenium	102	98.5	P/P	90 - 110
Silver	96.6	94.7	P/P	90 - 110
Thallium	99.5	96.7	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A114660

Included Lab Sample IDs: 2353562, 2353564

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

Reference Method: EPA 8276

Run ID: A114662

Included Lab Sample IDs: 2353577

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	99.0		P	80 - 120
Toxaphene	103		P	80 - 120

Reference Method: SM 2320 B-2011

Run ID: A114670

Included Lab Sample IDs: 2353562, 2353564

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.8	101	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A114671

Included Lab Sample IDs: 2353578

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
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Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
 Run ID: A114671
 Included Lab Sample IDs: 2353578

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	99.8		P	80 - 120
Avobenzene	102		P	80 - 120
Dechlorane Plus	105		P	80 - 120
Octinoxate	98.7		P	80 - 120
Oxybenzone	103		P	80 - 120
PBDE-47	101		P	80 - 120
PBDE-99	100		P	80 - 120
Tri-o-cresyl Phosphate	101		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
 Run ID: A114684
 Included Lab Sample IDs: 2353579, 2353580, 2353581, 2353582

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Lead	91.3	91.1	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
 Run ID: A114713
 Included Lab Sample IDs: 2353579, 2353580, 2353581, 2353582

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	107	106	P/P	90 - 110
Iron	107	108	P/P	90 - 110
Magnesium	107	107	P/P	90 - 110
Potassium	103	104	P/P	90 - 110
Sodium	103	103	P/P	90 - 110
Strontium	101	99.7	P/P	90 - 110
Tin	107	105	P/P	90 - 110
Titanium	104	103	P/P	90 - 110
Vanadium	103	102	P/P	90 - 110
Zinc	105	104	P/P	90 - 110

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

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			LCS	Precision SMP	MS
DEP SOP: NU-094-1	Color (true)	97.3					0.964	
EPA 180.1 Rev. 2.0	Turbidity	96.4					14.7	
EPA 200.7 Rev. 4.4	Calcium	108	105	111				2.26
	Iron	110	110	106	111			3.28
	Magnesium	106	105	110				3.69
	Potassium	104	101	114				2.49
	Sodium	104	103	108				1.54
	Strontium	104	104	103	105			0.885
	Tin	110	110	109	111			1.01
	Titanium	107	109	109	110			0.407
	Vanadium	106	107	107	108			0.0197
	Zinc	109	106	107	109			0.246
EPA 200.8 Rev. 5.4	Aluminum	102	99.6	99.7	101			0.0665
	Antimony	104	106	106	105			0.276
	Arsenic	103	104	103	105			1.06
	Barium	105	104	105	105			1.12
	Beryllium	99.9	103	99.0	99.9			3.66
	Boron	101	97.9	97.4	99.4			0.254
	Cadmium	99.4	101	102	99.0			0.672
	Chromium	102	100	100	104			0.279
	Cobalt	98.9	97.8	97.3	98.2			0.515
	Copper	101	96.5	97.2	104			0.734
	Lead	92.8	93.6	93.7	93.5			0.104
	Manganese	102	100	93.5	102			1.13
	Molybdenum	98.8	102	102	100			0.0878
	Nickel	102	101	99.4	102			1.67
	Selenium	101	102	101	101			0.515
	Silver	88.8	86.9	87.8	87.6			0.959
	Thallium	97.4	99.4	100	97.7			0.972
EPA 300.0 Rev. 2.1	Chloride	102	100	102			0.461	
	Sulfate	101	99.8	101			0.382	
EPA 350.1 Rev. 2.0	Ammonia-N	99.6	98.0	98.6				0.465
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	102	99.1	105				3.08
EPA 353.2 Rev. 2.0	NO2NO3-N	100	100	99.6				0.482
EPA 365.1 Rev. 2.0	Total-P	109	109	109				0.0224
EPA 8270E	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	59.7	77.6	104				29.3
	Acetochlor	73.7	66.0	124				54.2
	Alachlor	68.6	62.8	87.0				32.4
	Aldrin	50.0	62.3	59.9				3.94
	Alpha-BHC	78.0	91.8	98.2				6.64
	Alpha-Chlordane	60.5	73.5	74.9				1.93
	Ametryn	76.5	63.6	82.0				25.2
	Atrazine	79.0	83.7	124				25.4
	Atrazine Desethyl	52.1	51.2	65.6				24.6
	Avobenzone	62.2	64.2	98.6				42.1
	Azinphos Methyl	90.2	73.8	109				38.9
	Azoxystrobin	79.5	75.7	113				28.3
	Beta-BHC	86.6	118	116				1.79
	Beta-Cyfluthrin	53.8	88.8	86.3				2.86
	Bifenthrin	34.5	65.9	66.6				1.06
	Bromacil	71.4	64.2	79.9				21.8
	Butylate	52.7	31.1	46.4				39.5

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Caffeine	61.3	85.2	89.2			4.54
	Carbophenothion	74.5	59.2	85.9			36.8
	Carfentrazone Ethyl	82.5	61.6	85.2			32.1
	Chlorfenapyr	76.0	84.3	109			25.3
	Chlorothalonil	65.4	82.7	77.1			7.04
	Chlorpyrifos Ethyl	74.5	89.8	112			22.4
	Chlorpyrifos Methyl	74.8	88.9	115			26.0
	Cis-Nonachlor	56.2	62.8	63.1			0.400
	Coumaphos	80.1	60.5	85.8			34.7
	Cyanazine	83.7	71.2	105			38.1
	Cypermethrin	53.6	88.8	86.8			2.31
	Cyprodinil	66.4	68.6	92.2			29.3
	Dacthal	75.4	91.7	89.0			3.05
	DDD-p,p'	64.6	71.4	67.0			5.56
	DDE-p,p'	61.4	68.8	69.7			1.35
	DDT-p,p'	72.9	86.3	84.4			1.99
	Dechlorane Plus	64.9	80.9	112			32.2
	Delta-BHC	92.6	133	125			5.84
	Deltamethrin	44.1	62.1	75.3			19.2
	Demeton	60.6	56.3	80.1			34.8
	Diazinon	71.3	77.2	122			44.9
	Dichlobenil	77.5	84.7	82.2			2.95
	Dicofol	72.9	91.8	91.0			0.878
	Dieldrin	65.9	74.7	75.1			0.562
	Difenoconazole	84.9	74.4	104			33.5
	Dimethenamid	64.6	55.0	77.2			33.7
	Dimethomorph	70.3	70.9	98.0			32.1
	Disulfoton	68.9	65.4	87.2			28.6
	Dithiopyr	78.6	63.5	85.1			27.3
	Endosulfan I	69.1	77.2	78.3			1.45
	Endosulfan II	71.2	83.6	81.2			2.97
	Endosulfan Sulfate	75.2	86.1	85.0			1.31
	Endrin	66.8	73.6	75.4			2.50
	Endrin Aldehyde	64.2	66.3	68.3			2.98
	Endrin Ketone	122	69.6	67.2			3.51
	EPTC	47.2	24.9	36.0			36.5
	Esfenvalerate	50.4	88.3	87.3			1.08
	Ethalfuralin	73.4	76.0	82.5			8.24
	Ethion	76.6	51.0	74.9			37.9
	Ethoprop	68.3	70.0	83.9			18.1
	Etridiazole	45.1	35.4	52.1			38.2
	Fenamiphos	76.0	60.4	82.4			30.9
	Fenbuconazole	76.8	92.0	129			33.4
	Fenpropathrin	54.3	73.7	74.2			0.729
	Fipronil	71.5	67.7	89.3			27.5
	Fipronil Desulfinyl	84.8	67.2	90.9			29.9
	Fipronil Sulfide	73.4	52.4	66.3			23.4
	Fipronil Sulfone	60.5	47.2	61.7			26.6
	Fluazifop-P-butyl	75.0	57.5	84.5			38.1
	Fludioxonil	65.0	65.1	97.6			39.9
	Flumioxazin	81.0	94.0	124			27.2
	Flutolanil	71.9	53.8	89.3			28.3
	Fluxapyroxad	71.8	52.7	74.9			30.6
	Fonofos	66.3	58.9	80.8			31.3

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision LCS	SMP	MS
EPA 8270E	Gamma-BHC	71.6	99.8	96.7			3.19
	Gamma-Chlordane	61.3	74.1	73.3			1.13
	Heptachlor	63.0	68.6	68.3			0.416
	Heptachlor Epoxide	68.8	78.6	76.7			2.54
	Hexachlorobenzene	63.5	75.6	77.3			2.31
	Hexazinone	79.0	73.1	100			31.2
	Imazalil	32.9	21.3	66.1			102
	Iprodione	84.5	62.4	82.4			27.6
	Kepone	181	199	193			3.11
	Lambda-Cyhalothrin	45.7	82.7	80.0			3.31
	Loratadine	71.1	63.8	97.4			41.6
	Malathion	79.0	65.4	90.8			32.5
	Metalaxyl	71.1	58.6	83.4			34.9
	Methoprene	37.3	55.3	62.1			11.4
	Methoxychlor	75.3	97.2	95.9			1.33
	Metolachlor	69.2	58.1	91.3			31.2
	Metribuzin	71.0	63.1	98.2			43.5
	Mevinphos	63.1	76.9	85.0			9.97
	MGK-264	71.4	87.7	88.0			0.423
	Mirex	46.0	58.8	59.7			1.45
	Molinate	57.1	46.0	66.6			36.6
	Myclobutanil	67.6	66.5	91.4			31.6
	Naled	75.9	62.2	86.3			32.5
	Napropamide	65.9	55.2	71.6			25.9
	Norflurazon	67.2	52.7	62.7			17.4
	Octinoxate	56.3	75.8	98.5			26.0
	Oxadiazon	61.0	46.5	65.6			34.1
	Oxybenzone	59.1	70.0	90.0			25.0
	Oxychlordane	68.1	77.3	76.6			0.912
	Oxyfluorfen	83.9	90.0	119			27.8
	Parathion Ethyl	77.2	68.1	92.8			30.6
	Parathion Methyl	88.4	82.8	111			29.3
	PBDE-47	61.3	73.6	94.6			24.9
	PBDE-99	61.2	70.7	93.8			28.2
	PCB-1016	92.9	89.2	94.5			5.78
	PCB-1260	92.8	91.1	81.9			10.6
	Pendimethalin	57.7	54.1	73.3			30.1
	Permethrin	51.8	83.0	83.8			1.02
	Phenothrin	37.2	65.0	65.5			0.849
	Phenytoin	55.3	56.8	72.1			23.8
	Phorate	58.0	63.4	72.0			12.8
	Piperonyl Butoxide	75.0	90.8	89.5			1.47
	Prallethrin	64.9	76.8	80.7			4.97
	Prodiamine	32.2	48.0	65.3			30.6
	Prometon	66.0	55.4	78.1			34.1
	Prometryn	73.4	61.6	85.8			32.9
	Pronamide	86.4	74.0	91.2			20.8
	Propanil	73.1	61.2	82.4			29.6
	Propargite	71.1	94.4	140			39.1
	Propiconazole	67.5	54.1	68.7			23.8
	Pyraflufen Ethyl	70.7	69.9	115			48.7
	Pyridaben	72.1	62.0	88.8			35.6
	Pyriproxyfen	68.3	48.9	74.1			41.1
	Simazine	76.5	62.9	78.3			21.8

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Stiropfos	81.0	51.9	69.4		28.9
	Sulfentrazone	76.7	59.1	74.9		23.5
	Tau-Fluvalinate	44.2	82.7	83.0		0.410
	Tebuconazole	63.4	39.8	52.8		24.7
	Terbufos	77.4	79.4	97.8		20.7
	Terbutylazine	75.6	65.8	93.3		34.6
	Tetramethrin	73.2	107	107		0.277
	Thiobencarb	63.6	53.1	70.2		27.7
	Trans-Nonachlor	60.5	72.8	75.1		3.10
	Tri-o-cresyl Phosphate	65.0	73.3	93.8		24.6
	Triadimefon	66.9	53.4	67.7		23.5
	Triclosan Methyl	67.3	75.6	77.0		1.87
	Trifluralin	66.9	76.7	75.2		2.00
	Chlordane	79.9	78.0	72.8		6.83
EPA 8276	Toxaphene	82.6	78.7	77.5		1.48
EPA 8321B	2,4-D	70.6	71.7	66.0		8.28
	2,4,5-T	65.1	64.5	68.3		5.75
	3-Hydroxycarbofuran	53.0	58.8	47.4		21.4
	Acesulfame K	101	99.6	98.9		0.674
	Acetaminophen	89.9	80.1	90.7		12.4
	Acetamiprid	84.3	56.4	54.3		3.84
	Afidopyropen	45.3	39.6	33.7		16.1
	Aldicarb	65.9	62.6	73.7		16.3
	Aldicarb Sulfone	98.1	85.5	88.3		3.25
	Aldicarb Sulfoxide	88.6	48.7	45.7		6.48
	AMPA	104	105	108		2.20
	Bentazon	105	107	107		0.0786
	Benzovindiflupyr	101	93.6	91.6		2.20
	Carbamazepine	74.8	88.5	93.3		4.77
	Carbaryl	80.8	96.6	77.3		22.2
	Carbofuran	87.4	90.6	70.4		25.1
	Clothianidin	81.4	87.5	83.3		4.86
	Dinotefuran	87.1	91.7	96.9		5.51
	Diuron	88.7	84.1	84.6		0.445
	Endothall	97.1	92.9	96.0		3.24
	Fenuron	109	96.2	87.2		9.79
	Fluridone	95.9	83.4	106		23.5
	Glufosinate	103	96.5	94.1		2.45
	Glyphosate	99.6	87.9	83.3		5.37
	Hydrocodone	89.5	87.9	118		29.2
	Ibuprofen	59.6	62.6	55.4		12.2
	Imazapyr	79.6	67.6	78.3		12.4
	Imidacloprid	99.9	95.6	107		9.49
	Linuron	102	86.4	110		23.9
	Mandestrobin	99.6	97.6	99.8		2.22
	MCPP	83.0	70.8	75.1		5.91
	Methiocarb	98.9	105	90.6		15.1
	Methomyl	92.8	92.6	85.9		7.52
	Naproxen	115	64.6	87.4		30.0
	Oxamyl	93.8	94.6	86.5		8.92
	Primidone	116	79.2	97.3		20.5
	Propoxur	87.6	82.2	75.5		8.57
	Pyraclostrobin	89.3	93.8	101		7.29
	Silvex	59.6	66.0	64.8		1.78

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Sucralose	97.7	95.8	95.0		0.783
	Thiamethoxam	108	77.7	115		38.8
	Tolfenpyrad	41.5	59.1	63.6		7.47
	Triclopyr	60.1	57.3	66.9		15.6
SM 2320 B-2011	Total Alkalinity	98.4			0.145	
SM 2540 C-2011	TDS				2.89	
SM 4500-F- C-2011	Fluoride	102	99.9	98.0		1.45
SM 5310 B-2011	Organic Carbon	95.0	99.8	101		1.08

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2353562, 2353564
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2353562, 2353564
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2353579, 2353580, 2353581, 2353582
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2353579, 2353580, 2353581, 2353582
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2353562, 2353564
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2353562, 2353564
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2353563, 2353565
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2353563, 2353565
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2353563, 2353565
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2353563, 2353565
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2353578
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2353577
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2353578
EPA 8270E	PCBs in water matrices by GC/MS/MS	2353577
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2353577
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2353575
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2353576
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2353562, 2353564
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2353579, 2353580, 2353581, 2353582
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2353562, 2353564
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2353562, 2353564
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2353562, 2353564
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2353563, 2353565

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: NU-094-1	09/01/2022			09/01/2022 15:01	Anna M. Plaviak	2353562, 2353564
EPA 180.1 Rev. 2.0	09/01/2022			09/01/2022 13:34	Chandler E Cox	2353562
	09/01/2022			09/01/2022 13:35	Chandler E Cox	2353564
EPA 200.7 Rev. 4.4	09/01/2022	09/06/2022 10:20	Megan Whitefoot	09/14/2022 07:14	McKinley C Carter	2353579
	09/01/2022	09/06/2022 10:20	Megan Whitefoot	09/14/2022 07:21	McKinley C Carter	2353580
	09/01/2022	09/06/2022 10:20	Megan Whitefoot	09/14/2022 07:29	McKinley C Carter	2353581
	09/01/2022	09/06/2022 10:20	Megan Whitefoot	09/14/2022 07:35	McKinley C Carter	2353582
EPA 200.8 Rev. 5.4	09/01/2022	09/06/2022 10:20	Megan Whitefoot	09/09/2022 17:32	Emily M Philpot	2353579
	09/01/2022	09/06/2022 10:20	Megan Whitefoot	09/09/2022 17:42	Emily M Philpot	2353580
	09/01/2022	09/06/2022 10:20	Megan Whitefoot	09/09/2022 17:52	Emily M Philpot	2353581
	09/01/2022	09/06/2022 10:20	Megan Whitefoot	09/09/2022 18:01	Emily M Philpot	2353582
	09/01/2022	09/06/2022 10:20	Megan Whitefoot	09/12/2022 15:58	Emily M Philpot	2353579
	09/01/2022	09/06/2022 10:20	Megan Whitefoot	09/12/2022 16:05	Emily M Philpot	2353580
	09/01/2022	09/06/2022 10:20	Megan Whitefoot	09/12/2022 16:11	Emily M Philpot	2353581
	09/01/2022	09/06/2022 10:20	Megan Whitefoot	09/12/2022 16:18	Emily M Philpot	2353582
EPA 300.0 Rev. 2.1	09/01/2022			09/10/2022 11:15	Anna M. Plaviak	2353562
	09/01/2022			09/10/2022 11:30	Anna M. Plaviak	2353564
EPA 350.1 Rev. 2.0	09/01/2022			09/08/2022 13:00	Ping Hua	2353563
	09/01/2022			09/08/2022 13:01	Ping Hua	2353565
EPA 351.2 Rev. 2.0	09/01/2022	09/07/2022 13:36	Samantha L Bates	09/08/2022 14:06	Samantha L Bates	2353563
	09/01/2022	09/07/2022 13:36	Samantha L Bates	09/08/2022 14:08	Samantha L Bates	2353565
EPA 353.2 Rev. 2.0	09/01/2022			09/06/2022 10:30	Beverly Y. Sanders	2353563
	09/01/2022			09/06/2022 10:32	Beverly Y. Sanders	2353565
EPA 365.1 Rev. 2.0	09/01/2022	09/08/2022 16:33	Adam P Silver	09/09/2022 13:49	James L Waggeberby	2353563, 2353565
EPA 8270E	09/01/2022	09/01/2022 14:00	Rasheda Ghaffari	09/06/2022 02:09	Michael Poppell	2353578
	09/01/2022	09/01/2022 14:00	Rasheda Ghaffari	09/09/2022 16:55	Lipi Saha	2353578
	09/01/2022	09/06/2022 08:30	Rasheda Ghaffari	09/08/2022 22:16	Vandana T. Nagar	2353577
	09/01/2022	09/06/2022 08:30	Rasheda Ghaffari	09/09/2022 00:59	Julie Wi	2353577
EPA 8276	09/01/2022	09/06/2022 08:30	Rasheda Ghaffari	09/09/2022 13:34	Arthur Maknenko	2353577
EPA 8321B	09/01/2022	09/01/2022 14:00	Umesh Chiluwal	09/02/2022 03:22	Umesh Chiluwal	2353576
	09/01/2022	09/01/2022 14:00	Umesh Chiluwal	09/03/2022 04:10	Umesh Chiluwal	2353576
	09/01/2022	09/02/2022 13:00	Hoor Shaik	09/07/2022 20:15	Juyoung Kim	2353575
	09/01/2022	09/06/2022 09:30	June Rhew	09/08/2022 12:52	Juyoung Kim	2353576
SM 2320 B-2011	09/01/2022			09/11/2022 23:10	Dale L. Simmons	2353562
	09/01/2022			09/11/2022 23:18	Dale L. Simmons	2353564
SM 2340 B-2011	09/01/2022			09/14/2022 07:14	McKinley C Carter	2353579
	09/01/2022			09/14/2022 07:21	McKinley C Carter	2353580
	09/01/2022			09/14/2022 07:29	McKinley C Carter	2353581
	09/01/2022			09/14/2022 07:35	McKinley C Carter	2353582
SM 2540 C-2011	09/01/2022			09/02/2022 16:08	Yijie Li	2353562, 2353564

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2540 D-2011	09/01/2022			09/02/2022 16:08	Yijie Li	2353562, 2353564
SM 4500-F- C-2011	09/01/2022			09/09/2022 13:14	Dale L. Simmons	2353562
	09/01/2022			09/09/2022 13:19	Dale L. Simmons	2353564
SM 5310 B-2011	09/01/2022			09/06/2022 19:48	Khloe J Berg	2353563
	09/01/2022			09/06/2022 20:02	Khloe J Berg	2353565