

Chemical Analysis Report

SO-DIST-2022-03-15-01

Florida Department of Environmental Protection
Central Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

Event Description: **2022 SMP: Drains and Canals**

Request ID: **RQ-2022-03-14-49**

Customer: **SO-DIST**

Project ID: **SMP**

Send Reports to:
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FLDEP South District Office
2295 Victoria Ave. Suite 364
Fort Myers, FL 33901-3381
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Date Certified: 05-APR-2022 10:36



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: DRAINAGE DITCH @ CR 850

Collection Date/Time: 03/14/2022 09:05

Field ID: G1SD0061

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2312271	EPA 8321B	Acesulfame K	0.10	U	ug/L	P411107	
		2,4-D	0.0020	U	ug/L	411114	
		AMPA	0.10	U	ug/L	P411107	
		2,4,5-T	0.0040	U	ug/L	411114	
		Acetaminophen	0.0080	U	ug/L	411114	
		Endothall	0.25	U	ug/L	P411107	
		Acetamiprid	0.0020	U	ug/L	411114	
		Glufosinate	0.10	U	ug/L	P411107	
		Glyphosate	0.28	I	ug/L	P411107	
		Afidopyropen	0.0020	U	ug/L	411114	
		Sucralose	0.010	U	ug/L	P411107	
		Bentazon	8.0E-04	U	ug/L	411114	
		Benzovindiflupyr	0.0020	U	ug/L	411114	
		Carbamazepine	8.0E-04	U	ug/L	411114	
		Clothianidin	0.0077	I	ug/L	411114	
		Dinotefuran	0.0020	U	ug/L	411114	
		Diuron	0.0021	I	ug/L	411114	
		Fenuron	0.016	U	ug/L	411114	
		Fluridone	0.0010	I	ug/L	411114	
		Imazapyr	0.0040	U	ug/L	411114	
		Hydrocodone	0.0020	U	ug/L	411114	
		Ibuprofen	0.020	U	ug/L	411114	
		Imidacloprid	0.011		ug/L	411114	
		Linuron	0.0040	U	ug/L	411114	RPD
		Mandestrobin	0.0020	U	ug/L	411114	
		MCPP	0.0040	U	ug/L	411114	
		Naproxen	0.0080	U	ug/L	411114	
		Primidone	0.0040	U	ug/L	411114	
		Pyraclostrobin	0.0020	U	ug/L	411114	
		Silvex	0.0040	U	ug/L	411114	
		Thiamethoxam	0.014		ug/L	411114	
		Tolfenpyrad	0.0020	U	ug/L	411114	
		Triclopyr	0.0040	U	ug/L	411114	
2312279	EPA 200.7 Rev. 4.4	Calcium	86.1		mg/L	P411149	
		Iron	2.34E+03		ug/L	P411149	
		Magnesium	10.6		mg/L	P411149	
		Potassium	3.5		mg/L	P411149	
		Sodium	16.3		mg/L	P411149	
		Strontium	269		ug/L	P411149	
		Tin	6.0	U	ug/L	P411149	
		Titanium	3.2		ug/L	P411149	
		Vanadium	5.2	I	ug/L	P411149	
		Zinc	6.6	I	ug/L	P411149	
	EPA 200.8 Rev. 5.4	Aluminum	335		ug/L	P411149	

Field ID: G1SD0061

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2312279	EPA 200.8 Rev. 5.4	Antimony	0.083	I	ug/L	P411149	
		Arsenic	0.74		ug/L	P411149	
		Barium	15.6		ug/L	P411149	
		Beryllium	0.038	I	ug/L	P411149	
		Boron**	46.5		ug/L	P411149	
		Cadmium	0.020	U	ug/L	P411149	
		Chromium	1.3	I	ug/L	P411149	
		Cobalt	0.088		ug/L	P411149	
		Copper	0.84		ug/L	P411149	
		Lead	0.27	I	ug/L	P411149	
		Manganese	6.71		ug/L	P411149	
		Molybdenum	0.47	I	ug/L	P411149	
		Nickel	0.81	I	ug/L	P411149	
		Selenium	0.20	U	ug/L	P411149	MS
		Silver	0.010	U	ug/L	P411149	
	SM 2340B	Thallium	0.10	U	ug/L	P411149	
		Hardness	258		mg/L	P411149	

Ref. Method and Comment:
 EPA 8321B: MS accuracy for sucralose could not be assessed due to a high concentration of parameter in the spiked sample.
 EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

Sample Location: TownsendCanalatChurchRd

Collection Date/Time: 03/14/2022 09:45

Field ID: G3SD0221

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2312218	DEP SOP: NU-094-1	Color (true)**	68		PCU	P411177	
	EPA 180.1 Rev. 2.0	Turbidity	8.2		NTU	P411130	
	EPA 300.0 Rev. 2.1	Chloride	29		mg Cl/L	P411424	
		Sulfate	49		mg SO4/L	P411427	
	SM 2320 B-2011	Total Alkalinity	163		mg CaCO3/L	P411201	
	SM 2540 C-2011	TDS	313		mg/L	P411580	
	SM 2540 D-2011	TSS	13		mg/L	P411534	
	SM 4500 F-C-2011	Fluoride	0.18		mg F/L	P411204	
2312219	EPA 350.1 Rev. 2.0	Ammonia-N	0.005	I	mg N/L	P411183	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.9		mg N/L	P411219	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P411224	
	EPA 365.1 Rev. 2.0	Total-P	0.23		mg P/L	P411389	
	SM 5310 B-2011	Organic Carbon	16		mg C/L	P411217	
2312272	EPA 8321B	Aldicarb	0.020	U	ug/L	P411316	
		Aldicarb Sulfone	0.0020	U	ug/L	P411316	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P411316	
		Carbaryl	0.0020	U	ug/L	P411316	
		Carbofuran	0.0020	U	ug/L	P411316	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P411316	
		Methiocarb	0.0020	U	ug/L	P411316	
		Methomyl	0.0020	U	ug/L	P411316	
		Oxamyl	0.0020	U	ug/L	P411316	
		Propoxur	0.0020	U	ug/L	P411316	
		Acesulfame K	0.10	U	ug/L	P411107	
		2,4-D	0.0020	U	ug/L	411114	
		AMPA	1.8		ug/L	P411107	
2312273		2,4,5-T	0.0040	U	ug/L	411114	
		Acetaminophen	0.0080	U	ug/L	411114	
		Endothall	0.25	U	ug/L	P411107	
		Acetamiprid	0.0020	U	ug/L	411114	
		Glufosinate	0.10	U	ug/L	P411107	
		Glyphosate	4.0		ug/L	P411107	
		Afidopyropen	0.0020	U	ug/L	411114	
		Sucralose	0.010	U	ug/L	P411107	
		Bentazon	8.0E-04	U	ug/L	411114	
		Benzovindiflupyr	0.0020	U	ug/L	411114	
		Carbamazepine	8.0E-04	U	ug/L	411114	
		Clothianidin	0.030		ug/L	411114	
		Dinotefuran	0.0024	I	ug/L	411114	
		Diuron	0.0074	I	ug/L	411114	
		Fenuron	0.016	U	ug/L	411114	
		Fluridone	8.0E-04	U	ug/L	411114	
		Imazapyr	0.21		ug/L	411114	
		Hydrocodone	0.0020	U	ug/L	411114	

Field ID: G3SD0221

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2312273	EPA 8321B	Ibuprofen	0.020	U	ug/L	411114	
		Imidacloprid	0.28		ug/L	411114	
		Linuron	0.0040	U	ug/L	411114	RPD
		Mandestrobin	0.0020	U	ug/L	411114	
		MCP	0.0040	U	ug/L	411114	
		Naproxen	0.0080	U	ug/L	411114	
		Primidone	0.0040	U	ug/L	411114	
		Pyraclostrobin	0.0020	U	ug/L	411114	
		Silvex	0.0040	U	ug/L	411114	
		Thiamethoxam	0.022		ug/L	411114	
		Tolfenpyrad	0.0020	U	ug/L	411114	
		Triclopyr	0.0040	U	ug/L	411114	
2312274	EPA 8270E	Aldrin	0.67	UJ	ng/L	P411315	LCS
		Alpha-BHC	0.10	U	ng/L	P411315	
		Alpha-Chlordane	0.21	U	ng/L	P411315	
		PCB-1016	2.1	U	ng/L	P411315	
		Beta-BHC	0.10	U	ng/L	P411315	
		PCB-1221	2.1	U	ng/L	P411315	
		Beta-Cyfluthrin**	1.3	U	ng/L	P411315	
		PCB-1232	2.1	U	ng/L	P411315	
		Bifenthrin**	0.51	U	ng/L	P411315	MS
		PCB-1242	2.1	U	ng/L	P411315	
		PCB-1248	2.1	U	ng/L	P411315	
		Chlorothalonil	1.3	U	ng/L	P411315	
		PCB-1254	2.1	U	ng/L	P411315	
		Cis-Nonachlor**	0.21	U	ng/L	P411315	
		PCB-1260	2.1	U	ng/L	P411315	
		Cypermethrin	1.5	U	ng/L	P411315	
		Dacthal**	0.15	U	ng/L	P411315	
		DDD-p,p'	0.26	U	ng/L	P411315	
		DDE-p,p'	0.21	UJ	ng/L	P411315	LCS
		DDT-p,p'	0.26	U	ng/L	P411315	
		Delta-BHC	0.41	U	ng/L	P411315	
		Deltamethrin**	1.3	U	ng/L	P411315	
		Dichlobenil**	0.26	U	ng/L	P411315	
		Dicofol	1.3	U	ng/L	P411315	
		Dieldrin	0.41	U	ng/L	P411315	
		Endosulfan I	0.41	UJ	ng/L	P411315	LCS
		Endosulfan II	0.41	U	ng/L	P411315	
		Endosulfan Sulfate	0.31	U	ng/L	P411315	
		Endrin	0.41	U	ng/L	P411315	
		Endrin Aldehyde	0.77	U	ng/L	P411315	
		Endrin Ketone	0.41	U	ng/L	P411315	
		Esfenvalerate**	0.77	U	ng/L	P411315	
		Ethalfuralin**	0.15	UJ	ng/L	P411315	LCS

Field ID: G3SD0221

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes	
2312274	EPA 8270E	Fenpropathrin**	0.26	UJ	ng/L	P411315	LCS	
		Gamma-BHC	0.13	U	ng/L	P411315		
		Gamma-Chlordane	0.21	U	ng/L	P411315		
		Heptachlor	0.21	U	ng/L	P411315		
		Heptachlor Epoxide	0.26	U	ng/L	P411315		
		Hexachlorobenzene	1.0	UJ	ng/L	P411315	LCS	
		Kepone**	5.1	U	ng/L	P411315		
		Lambda-Cyhalothrin**	0.77	U	ng/L	P411315		
		Methoprene**	0.77	U	ng/L	P411315		
		Methoxychlor	0.31	U	ng/L	P411315		
		MGK-264**	0.21	U	ng/L	P411315		
		Mirex	0.72	U	ng/L	P411315		
		Oxychlordane**	0.31	U	ng/L	P411315		
		Permethrin	1.6	U	ng/L	P411315		
		Phenothrin**	0.92	UJ	ng/L	P411315	LCS	
		Piperonyl Butoxide**	0.15	U	ng/L	P411315		
		Prallethrin**	2.1	U	ng/L	P411315		
		Tau-Fluvalinate**	0.26	U	ng/L	P411315		
		Tetramethrin**	0.77	U	ng/L	P411315	MS	
		Trans-Nonachlor**	0.21	U	ng/L	P411315		
		Triclosan Methyl**	0.15	U	ng/L	P411315		
		Trifluralin	0.21	UJ	ng/L	P411315	LCS	
		EPA 8276	Chlordane	2.6	U	ng/L	P411315	
			Toxaphene	15	U	ng/L	P411315	
2312275	EPA 8270E	Oxybenzone**	9.7	U	ng/L	P411232		
		Acetochlor	0.24	U	ng/L	P411232		
		Octinoxate**	19	U	ng/L	P411232		
		Alachlor	0.24	U	ng/L	P411232		
		Avobenzone**	97	U	ng/L	P411232		
		Ametryn	0.58	U	ng/L	P411232		
		Atrazine	2.6		ng/L	P411232		
		Atrazine Desethyl	1.4	U	ng/L	P411232		
		Azinphos Methyl	1.9	U	ng/L	P411232		
		Azoxystrobin**	1.7	I	ng/L	P411232		
		Bromacil	52		ng/L	P411232		
		Butylate	0.39	U	ng/L	P411232		
		Caffeine**	7.2	U	ng/L	P411232		
		Carbophenothion	0.19	U	ng/L	P411232		
		Carfentrazone Ethyl**	0.097	U	ng/L	P411232		
		Chlorfenapyr**	0.17	U	ng/L	P411232		
		Chlorpyrifos Ethyl	0.24	U	ng/L	P411232		
		Chlorpyrifos Methyl	0.048	U	ng/L	P411232		
		Coumaphos**	0.48	U	ng/L	P411232		
		Cyanazine	3.1	U	ng/L	P411232		
		Cyprodinil**	0.56		ng/L	P411232		

Field ID: G3SD0221

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2312275	EPA 8270E	Demeton	1.4	U	ng/L	P411232	
		Diazinon	2.6		ng/L	P411232	
		Difenoconazole**	0.83	I	ng/L	P411232	RPD
		Dimethenamid**	0.097	U	ng/L	P411232	
		Dimethomorph**	0.17	U	ng/L	P411232	MS, RPD
		Disulfoton	0.48	U	ng/L	P411232	
		Dithiopyr**	0.17	U	ng/L	P411232	
		EPTC	1.2	U	ng/L	P411232	
		Ethion	0.14	U	ng/L	P411232	
		Ethoprop	0.097	U	ng/L	P411232	
		Etridiazole**	0.14	U	ng/L	P411232	
		Fenamiphos	0.48	U	ng/L	P411232	
		Fenbuconazole**	3.9		ng/L	P411232	RPD
		Fipronil	0.24	U	ng/L	P411232	
		Fipronil Desulfinyl**	0.12	U	ng/L	P411232	
		Fipronil Sulfide	0.14	U	ng/L	P411232	
		Fipronil Sulfone	0.14	U	ng/L	P411232	
		Fluazifop-P-butyl**	0.097	U	ng/L	P411232	
		Fludioxonil**	0.16	I	ng/L	P411232	
		Flumioxazin**	1.7	U	ng/L	P411232	
		Flutolanil**	0.097	U	ng/L	P411232	
		Fluxapyroxad**	12		ng/L	P411232	
		Fonofos	0.19	U	ng/L	P411232	
		Hexazinone	34		ng/L	P411232	
		Imazalil**	0.72	U	ng/L	P411232	
		Iprodione**	0.58	U	ng/L	P411232	
		Loratadine**	0.097	U	ng/L	P411232	MS, RPD
		Malathion	0.34	U	ng/L	P411232	
		Metalaxyl	66		ng/L	P411232	
		Metolachlor	1.1	I	ng/L	P411232	
		Metribuzin	2.4	U	ng/L	P411232	
		Mevinphos	1.0	U	ng/L	P411232	
		Molinate	0.29	U	ng/L	P411232	
		Myclobutanil**	0.24	U	ng/L	P411232	
		Naled**	1.4	U	ng/L	P411232	
		Napropamide**	0.39	U	ng/L	P411232	
		Norflurazon	930		ng/L	P411232	
		Oxadiazon	0.29	U	ng/L	P411232	
		Oxyfluorfen**	0.14	U	ng/L	P411232	
		Parathion Ethyl	0.24	U	ng/L	P411232	
		Parathion Methyl	0.53	U	ng/L	P411232	
		Pendimethalin	0.97	U	ng/L	P411232	RPD
		Phenytoin**	3.4	UJ	ng/L	P411232	LCS, MS, RPD
		Phorate	0.51	U	ng/L	P411232	

Field ID: G3SD0221

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2312275	EPA 8270E	Prodiamine**	0.29	UJ	ng/L	P411232	CCV
		Prometon	0.87	U	ng/L	P411232	
		Prometryn	0.19	U	ng/L	P411232	
		Pronamide**	0.14	U	ng/L	P411232	
		Propanil**	0.12	U	ng/L	P411232	
		Propargite**	1.4	U	ng/L	P411232	
		Propiconazole**	0.48	U	ng/L	P411232	
		Pyraflufen Ethyl**	0.24	U	ng/L	P411232	
		Pyridaben**	0.43	U	ng/L	P411232	
		Pyriproxyfen**	0.12	U	ng/L	P411232	
		Simazine	0.48	U	ng/L	P411232	
		Stirophos**	0.12	U	ng/L	P411232	MS
		Sulfentrazone**	0.48	U	ng/L	P411232	
		Tebuconazole**	0.48	U	ng/L	P411232	
		Terbufos	0.097	U	ng/L	P411232	
		Terbuthylazine	0.41	U	ng/L	P411232	
		Thiobencarb**	0.58	U	ng/L	P411232	
		Triadimefon**	0.24	U	ng/L	P411232	

Ref. Method and Comment:

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

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

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

EPA 8270E: MS accuracy for Atrazine not assessed due to high content of this parameter in the sample spiked. Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: C-139 Annex @ Deer Fence Canal Rd

Collection Date/Time: 03/14/2022 11:10

Field ID: G1SD0076

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2312220	DEP SOP: NU-094-1	Color (true)**	70		PCU	P411177	
	EPA 180.1 Rev. 2.0	Turbidity	3.6		NTU	P411130	
	EPA 300.0 Rev. 2.1	Chloride	43		mg Cl/L	P411424	
		Sulfate	10		mg SO4/L	P411427	
	SM 2320 B-2011	Total Alkalinity	235		mg CaCO3/L	P411201	
	SM 2540 C-2011	TDS	328		mg/L	P411580	
	SM 2540 D-2011	TSS	7	I	mg/L	P411534	
	SM 4500 F-C-2011	Fluoride	0.31		mg F/L	P411204	
2312221	EPA 350.1 Rev. 2.0	Ammonia-N	0.040		mg N/L	P411184	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P411275	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.043		mg N/L	P411224	
	EPA 365.1 Rev. 2.0	Total-P	0.097		mg P/L	P411389	
	SM 5310 B-2011	Organic Carbon	18		mg C/L	P411217	

Ref. Method and Comment:

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

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P411177

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P411130

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P411149

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: P411149

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: P411424

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: P411427

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P411183

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P411184

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P411219

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P411275

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P411224

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P411389

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

Reference Method: EPA 8270E
Batch ID: P411232

Component	Result	Code	Units
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P411232

Component	Result	Code	Units
Avobenzene	100	U	ng/L
Avobenzene	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
Caffeine	7.5	U	ng/L
Caffeine	7.5	U	ng/L
Carbophenothion	0.20	U	ng/L
Carbophenothion	0.20	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Chlorfenapyr	0.18	U	ng/L
Chlorfenapyr	0.18	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Coumaphos	0.50	U	ng/L
Coumaphos	0.50	U	ng/L
Cyanazine	3.2	U	ng/L
Cyanazine	3.2	U	ng/L
Cyprodinil	0.10	U	ng/L
Cyprodinil	0.10	U	ng/L
Demeton	1.5	U	ng/L
Demeton	1.5	U	ng/L
Diazinon	0.12	U	ng/L
Diazinon	0.12	U	ng/L
Difenoconazole	0.60	U	ng/L
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethomorph	0.18	U	ng/L
Dimethomorph	0.18	U	ng/L
Disulfoton	0.50	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.18	U	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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P411232

Component	Result	Code	Units
Fenbuconazole	0.12	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.12	U	ng/L
Fludioxonil	0.12	U	ng/L
Flumioxazin	1.8	U	ng/L
Flumioxazin	1.8	U	ng/L
Flutolanil	0.10	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fonofos	0.20	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.75	U	ng/L
Imazalil	0.75	U	ng/L
Iprodione	0.60	U	ng/L
Iprodione	0.60	U	ng/L
Loratadine	0.10	U	ng/L
Loratadine	0.10	U	ng/L
Malathion	0.35	U	ng/L
Malathion	0.35	U	ng/L
Metaxyl	0.75	U	ng/L
Metaxyl	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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P411232

Component	Result	Code	Units
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
Parathion Methyl	0.55	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Pendimethalin	1.0	U	ng/L
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	0.30	U	ng/L
Prodiatone	0.30	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
Triadimefon	0.25	U	ng/L
Triadimefon	0.25	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P411315

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: P411315

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	0.70	U	ng/L
Mirex	0.70	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: P411315

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: P411315

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: 411114

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	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: EPA 8321B

Batch ID: P411107

Component	Result	Code	Units
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Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B

Batch ID: P411107

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: P411316

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: SM 2320 B-2011

Batch ID: P411201

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

Reference Method: SM 2540 C-2011

Batch ID: P411580

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011

Batch ID: P411534

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011

Batch ID: P411204

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011

Batch ID: P411217

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: P411177

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.4		P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P411130

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P411149

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	103		P	85 - 115
Iron	105		P	85 - 115
Magnesium	103		P	85 - 115
Potassium	105		P	85 - 115
Sodium	103		P	85 - 115
Strontium	104		P	85 - 115
Tin	103		P	85 - 115
Titanium	103		P	85 - 115
Vanadium	96.9		P	85 - 115
Zinc	104		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P411149

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	103		P	85 - 115
Antimony	103		P	85 - 115
Arsenic	103		P	85 - 115
Barium	106		P	85 - 115
Beryllium	102		P	85 - 115
Boron	106		P	85 - 115
Cadmium	104		P	85 - 115
Chromium	99.4		P	85 - 115
Cobalt	101		P	85 - 115
Copper	99.8		P	85 - 115
Lead	100		P	85 - 115
Manganese	101		P	85 - 115
Molybdenum	102		P	85 - 115
Nickel	102		P	85 - 115
Selenium	103		P	85 - 115
Silver	99.9		P	85 - 115
Thallium	104		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411424

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411427

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P411183

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P411184

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P411219

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P411275

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P411224

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P411389

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

Reference Method: EPA 8270E
Batch ID: P411232

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	101		P	70 - 121
Alachlor	92.5		P	68 - 119
Ametryn	72.7		P	64 - 139
Atrazine	98.4		P	76 - 120
Atrazine Desethyl	56.6		P	44 - 126
Avobenzone	106		P	76 - 212
Azinphos Methyl	97.0		P	43 - 192
Azoxystrobin	93.6		P	36 - 224
Bromacil	60.6		P	52 - 121
Butylate	39.7		P	28 - 91.0

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
 Batch ID: P411232

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Caffeine	93.2		P	50 - 134
Carbophenothion	99.1		P	56 - 129
Carfentrazone Ethyl	85.2		P	60 - 141
Chlorfenapyr	103		P	56 - 115
Chlorpyrifos Ethyl	94.5		P	60 - 118
Chlorpyrifos Methyl	100		P	68 - 119
Coumaphos	110		P	18 - 250
Cyanazine	82.1		P	61 - 250
Cyprodinil	92.6		P	55 - 145
Demeton	75.2		P	30 - 159
Diazinon	96.9		P	70 - 123
Difenoconazole	94.8		P	49 - 204
Dimethenamid	82.5		P	64 - 115
Dimethomorph	155		P	12 - 219
Disulfoton	80.1		P	44 - 125
Dithiopyr	89.9		P	64 - 115
EPTC	49.3		P	28 - 86.0
Ethion	65.6		P	33 - 125
Ethoprop	88.7		P	64 - 116
Etridiazole	67.9		P	34 - 91.0
Fenamiphos	63.8		P	12 - 127
Fenbuconazole	64.1		P	59 - 151
Fipronil	94.4		P	67 - 129
Fipronil Desulfinyl	99.8		P	65 - 127
Fipronil Sulfide	85.7		P	61 - 116
Fipronil Sulfone	75.9		P	55 - 117
Fluazifop-P-butyl	112		P	62 - 127
Fludioxonil	74.6		P	62 - 128
Flumioxazin	81.9		P	33 - 250
Flutolanil	57.9		P	56 - 127
Fluxapyroxad	72.1		P	45 - 128
Fonofos	90.3		P	62 - 111
Hexazinone	83.4		P	46 - 139
Imazalil	66.5		P	38 - 142
Iprodione	73.2		P	47 - 135
Loratadine	119		P	10 - 244
Malathion	96.6		P	61 - 139
Metalaxyl	93.9		P	10 - 119
Metolachlor	92.9		P	65 - 118
Metribuzin	80.0		P	51 - 250
Mevinphos	82.1		P	53 - 121
Molinate	54.3		P	42 - 96.0
Myclobutanil	82.9		P	55 - 128
Naled	73.1		P	10 - 98.0
Napropamide	58.7		P	49 - 121
Norflurazon	78.9		P	61 - 126
Octinoxate	92.5		P	30 - 159
Oxadiazon	71.7		P	59 - 116
Oxybenzone	89.2		P	61 - 139
Oxyfluorfen	116		P	64 - 137
Parathion Ethyl	84.1		P	70 - 112
Parathion Methyl	93.0		P	76 - 133

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P411232

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Pendimethalin	103		P	52 - 117
Phenytoin	9.03		F	10 - 199
Phorate	86.2		P	48 - 121
Prodiamine	33.1		P	26 - 142
Prometon	74.8		P	43 - 123
Prometryn	88.7		P	66 - 127
Pronamide	93.9		P	75 - 121
Propanil	97.9		P	45 - 150
Propargite	55.7		P	42 - 208
Propiconazole	72.2		P	60 - 125
Pyraflufen Ethyl	78.1		P	70 - 138
Pyridaben	97.7		P	35 - 245
Pyriproxyfen	76.3		P	30 - 149
Simazine	85.3		P	72 - 125
Stirophos	55.7		P	29 - 164
Sulfentrazone	32.2		P	21 - 139
Tebuconazole	45.9		P	10 - 115
Terbufos	113		P	60 - 123
Terbutylazine	93.8		P	72 - 115
Thiobencarb	85.0		P	31 - 139
Triadimefon	92.2		P	65 - 116

Reference Method: EPA 8270E
Batch ID: P411315

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	99.4		F	10 - 93.0
Alpha-BHC	99.7		P	75 - 106
Alpha-Chlordane	106		P	50 - 109
Beta-BHC	116		P	65 - 135
Beta-Cyfluthrin	123		P	23 - 167
Bifenthrin	121		P	11 - 123
Chlorothalonil	138		P	26 - 182
Cis-Nonachlor	101		P	40 - 111
Cypermethrin	116		P	25 - 155
Dacthal	110		P	73 - 112
DDD-p,p'	104		P	47 - 108
DDE-p,p'	110		F	48 - 107
DDT-p,p'	105		P	49 - 111
Delta-BHC	117		P	68 - 143
Deltamethrin	125		P	16 - 176
Dichlobenil	99.0		P	32 - 113
Dicofol	98.6		P	50 - 108
Dieldrin	110		P	56 - 110
Endosulfan I	106		F	60 - 105
Endosulfan II	105		P	50 - 120
Endosulfan Sulfate	103		P	55 - 121
Endrin	106		P	31 - 119
Endrin Aldehyde	105		P	36 - 116
Endrin Ketone	93.2		P	56 - 130
Esfenvalerate	119		P	10 - 179
Ethalfuralin	99.8		F	49 - 99.0

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P411315

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fenpropathrin	121		F	35 - 119
Gamma-BHC	106		P	72 - 115
Gamma-Chlordane	106		P	45 - 107
Heptachlor	95.0		P	41 - 100
Heptachlor Epoxide	102		P	58 - 106
Hexachlorobenzene	107		F	39 - 100
Kepone	88.3		P	10 - 191
Lambda-Cyhalothrin	117		P	10 - 186
Methoprene	119		P	10 - 129
Methoxychlor	106		P	61 - 111
MGK-264	109		P	20 - 123
Mirex	110		P	10 - 182
Oxychlordane	98.5		P	39 - 110
PCB-1016	74.7		P	49 - 111
PCB-1260	72.4		P	42 - 116
Permethrin	129		P	26 - 152
Phenothrin	121		F	10 - 109
Piperonyl Butoxide	107		P	27 - 142
Prallethrin	102		P	14 - 109
Tau-Fluvalinate	125		P	16 - 134
Tetramethrin	114		P	10 - 125
Trans-Nonachlor	102		P	45 - 107
Triclosan Methyl	106		P	60 - 110
Trifluralin	103		F	49 - 98.0

Reference Method: EPA 8276

Batch ID: P411315

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	83.7		P	61 - 118
Toxaphene	75.7		P	51 - 122

Reference Method: EPA 8321B

Batch ID: 411114

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	83.4		P	40 - 150
2,4,5-T	50.8		P	40 - 150
Acetaminophen	96.9		P	30 - 150
Acetamiprid	80.4		P	40 - 150
Afidopyropen	54.2		P	40 - 150
Bentazon	92.7		P	30 - 150
Benzovindiflupyr	114		P	40 - 150
Carbamazepine	122		P	40 - 150
Clothianidin	112		P	40 - 150
Dinotefuran	106		P	40 - 150
Diuron	93.3		P	40 - 150
Fenuron	132		P	40 - 150
Fluridone	91.9		P	40 - 150
Hydrocodone	111		P	40 - 150
Ibuprofen	46.0		P	40 - 150
Imazapyr	106		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: 411114

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Imidacloprid	119		P	40 - 150
Linuron	90.7		P	40 - 150
Mandestrobin	92.9		P	40 - 150
MCPP	92.7		P	40 - 150
Naproxen	52.4		P	40 - 150
Primidone	144		P	40 - 150
Pyraclostrobin	86.6		P	40 - 150
Silvex	47.7		P	40 - 150
Thiamethoxam	108		P	40 - 150
Tolfenpyrad	40.9		P	30 - 150
Triclopyr	55.7		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P411107

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	97.9		P	40 - 150
AMPA	92.8		P	40 - 150
Endothall	88.9		P	40 - 150
Glufosinate	108		P	40 - 150
Glyphosate	90.9		P	40 - 150
Sucralose	83.3		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P411316

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	80.4		P	30 - 160
Aldicarb	60.6		P	30 - 150
Aldicarb Sulfone	80.4		P	30 - 160
Aldicarb Sulfoxide	83.7		P	30 - 160
Carbaryl	53.2		P	30 - 160
Carbofuran	53.5		P	30 - 160
Methiocarb	69.5		P	30 - 160
Methomyl	81.2		P	30 - 160
Oxamyl	87.1		P	30 - 160
Propoxur	49.4		P	30 - 160

Reference Method: SM 2320 B-2011
Batch ID: P411201

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.4		P	94 - 106

Reference Method: SM 4500 F-C-2011
Batch ID: P411204

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.9		P	93 - 104

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P411217

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.4		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P411149

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2312279	Iron	104		P	80 - 120
2312279	Magnesium	104		P	80 - 120
2312279	Potassium	102		P	80 - 120
2312279	Sodium	104		P	80 - 120
2312279	Strontium	103		P	80 - 120
2312279	Tin	96.1		P	80 - 120
2312279	Titanium	99.3		P	80 - 120
2312279	Vanadium	98.0		P	80 - 120
2312279	Zinc	101		P	80 - 120
2312474	Calcium	104		P	80 - 120
2312474	Iron	108	109	P/P	80 - 120
2312474	Magnesium	104		P	80 - 120
2312474	Potassium	105	104	P/P	80 - 120
2312474	Sodium	106		P	80 - 120
2312474	Strontium	106	106	P/P	80 - 120
2312474	Tin	103	104	P/P	80 - 120
2312474	Titanium	104	105	P/P	80 - 120
2312474	Vanadium	100	101	P/P	80 - 120
2312474	Zinc	103	104	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P411149

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2312279	Aluminum	105		P	80 - 120
2312279	Antimony	104		P	80 - 120
2312279	Arsenic	103		P	80 - 120
2312279	Barium	105		P	80 - 120
2312279	Beryllium	98.0		P	80 - 120
2312279	Boron	102		P	80 - 120
2312279	Cadmium	105		P	80 - 120
2312279	Chromium	104		P	80 - 120
2312279	Cobalt	100		P	80 - 120
2312279	Copper	94.2		P	80 - 120
2312279	Lead	99.2		P	80 - 120
2312279	Manganese	102		P	80 - 120
2312279	Molybdenum	102		P	80 - 120
2312279	Nickel	96.4		P	80 - 120
2312279	Selenium	101		P	80 - 120
2312279	Silver	99.0		P	80 - 120
2312279	Thallium	107		P	80 - 120
2312474	Aluminum	98.4	99.3	P/P	80 - 120
2312474	Antimony	106	105	P/P	80 - 120
2312474	Arsenic	104	103	P/P	80 - 120
2312474	Barium	105	105	P/P	80 - 120
2312474	Beryllium	101	97.8	P/P	80 - 120
2312474	Boron	102	102	P/P	80 - 120
2312474	Cadmium	103	104	P/P	80 - 120
2312474	Chromium	102	102	P/P	80 - 120
2312474	Cobalt	99.8	99.2	P/P	80 - 120
2312474	Copper	95.5	95.0	P/P	80 - 120
2312474	Lead	98.5	98.0	P/P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P411149

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2312474	Manganese	102	102	P/P	80 - 120
2312474	Molybdenum	103	103	P/P	80 - 120
2312474	Nickel	98.9	98.8	P/P	80 - 120
2312474	Selenium	15.6	18.0	F/F	80 - 120
2312474	Silver	99.9	100	P/P	80 - 120
2312474	Thallium	105	105	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411424

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2312292	Chloride	100		P	90 - 110
2312430	Chloride	103		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411427

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2312292	Sulfate	100		P	90 - 110
2312430	Sulfate	102		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P411183

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2312197	Ammonia-N	98.2	97.0	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P411184

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2312221	Ammonia-N	99.6	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P411219

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2311929	Kjeldahl Nitrogen	98.8	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P411275

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2312165	Kjeldahl Nitrogen	92.3	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P411224

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2312165	NO2NO3-N	94.8	95.8	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P411389

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2312277	Total-P	104	106	P/P	90 - 110

Reference Method: EPA 8270E

Batch ID: P411232

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2313285	Acetochlor	112	124	P/P	65 - 124
2313285	Alachlor	91.0	105	P/P	61 - 121
2313285	Ametryn	93.5	91.3	P/P	52 - 216
2313285	Atrazine Desethyl	53.8	60.6	P/P	15 - 160
2313285	Avobenzone	91.2	96.6	P/P	59 - 206
2313285	Azinphos Methyl	107	137	P/P	40 - 292
2313285	Azoxystrobin	99.0	129	P/P	12 - 242
2313285	Bromacil	87.7	88.8	P/P	54 - 167
2313285	Butylate	48.2	51.3	P/P	14 - 94.0
2313285	Caffeine	101	85.2	P/P	10 - 226
2313285	Carbophenothion	94.7	95.1	P/P	49 - 122
2313285	Carfentrazone Ethyl	92.1	99.9	P/P	53 - 138
2313285	Chlorfenapyr	85.7	91.3	P/P	50 - 150
2313285	Chlorpyrifos Ethyl	78.9	86.6	P/P	52 - 122
2313285	Chlorpyrifos Methyl	96.3	95.1	P/P	66 - 117
2313285	Coumaphos	90.6	92.1	P/P	50 - 220
2313285	Cyanazine	86.8	85.9	P/P	43 - 245
2313285	Cyprodinil	105	93.8	P/P	50 - 150
2313285	Demeton	81.7	80.4	P/P	43 - 188
2313285	Diazinon	107	111	P/P	69 - 131
2313285	Difenoconazole	104	76.7	P/P	34 - 231
2313285	Dimethenamid	90.8	95.3	P/P	55 - 118
2313285	Dimethomorph	140	225	P/F	50 - 150
2313285	Disulfoton	73.4	76.0	P/P	38 - 141
2313285	Dithiopyr	86.7	90.9	P/P	42 - 116
2313285	EPTC	50.6	55.4	P/P	18 - 85.0
2313285	Ethion	77.3	48.7	P/P	10 - 131
2313285	Ethoprop	88.3	92.4	P/P	65 - 129
2313285	Etridiazole	78.5	95.9	P/P	50 - 150
2313285	Fenamiphos	68.7	74.3	P/P	31 - 137
2313285	Fenbuconazole	73.7	112	P/P	57 - 160
2313285	Fipronil	98.5	112	P/P	62 - 132
2313285	Fipronil Desulfinyl	99.5	106	P/P	57 - 131
2313285	Fipronil Sulfide	85.0	87.9	P/P	15 - 138
2313285	Fipronil Sulfone	64.6	59.8	P/P	21 - 134
2313285	Fluazifop-P-butyl	102	101	P/P	54 - 133
2313285	Fludioxonil	92.5	98.5	P/P	58 - 127
2313285	Flumioxazin	118	145	P/P	33 - 300
2313285	Flutolanil	58.7	72.4	P/P	42 - 130
2313285	Fluxapyroxad	76.5	85.0	P/P	23 - 141
2313285	Fonofos	83.1	93.7	P/P	58 - 119
2313285	Hexazinone	91.7	85.8	P/P	68 - 172
2313285	Imazalil	80.9	109	P/P	48 - 283
2313285	Iprodione	87.0	97.8	P/P	38 - 140
2313285	Loratadine	112	209	P/F	50 - 150
2313285	Malathion	82.1	83.5	P/P	40 - 137

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P411232

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2313285	Metalaxyl	86.8	90.3	P/P	21 - 129
2313285	Metolachlor	91.1	105	P/P	55 - 122
2313285	Metribuzin	75.9	80.6	P/P	38 - 187
2313285	Mevinphos	92.2	93.4	P/P	54 - 134
2313285	Molinate	63.5	68.9	P/P	41 - 97.0
2313285	Myclobutanil	80.0	79.0	P/P	56 - 125
2313285	Naled	69.3	73.7	P/P	10 - 108
2313285	Napropamide	69.1	78.8	P/P	50 - 150
2313285	Norflurazon	71.1	63.0	P/P	32 - 122
2313285	Octinoxate	98.0	100	P/P	25 - 150
2313285	Oxadiazon	69.8	80.8	P/P	40 - 119
2313285	Oxybenzone	88.7	92.3	P/P	59 - 147
2313285	Oxyfluorfen	127	128	P/P	61 - 153
2313285	Parathion Ethyl	86.6	86.1	P/P	59 - 130
2313285	Parathion Methyl	124	115	P/P	65 - 155
2313285	Pendimethalin	119	83.7	P/P	49 - 138
2313285	Phenytoin	31.4	13.2	F/F	50 - 200
2313285	Phorate	85.9	88.9	P/P	54 - 161
2313285	Prodiamine	49.4	50.5	P/P	33 - 161
2313285	Prometon	80.7	80.0	P/P	48 - 140
2313285	Prometryn	84.0	85.7	P/P	55 - 134
2313285	Pronamide	101	111	P/P	66 - 137
2313285	Propanil	119	113	P/P	50 - 150
2313285	Propargite	66.5	51.0	P/P	50 - 200
2313285	Propiconazole	70.3	57.1	P/P	36 - 150
2313285	Pyraflufen Ethyl	71.7	65.1	P/P	50 - 150
2313285	Pyridaben	87.4	93.6	P/P	50 - 200
2313285	Pyriproxyfen	83.1	86.7	P/P	10 - 165
2313285	Simazine	93.2	120	P/P	57 - 145
2313285	Stirophos	55.6	43.7	P/F	50 - 150
2313285	Sulfentrazone	97.7	114	P/P	34 - 140
2313285	Tebuconazole	55.7	41.9	P/P	10 - 127
2313285	Terbufos	109	109	P/P	59 - 138
2313285	Terbuthylazine	100	109	P/P	68 - 119
2313285	Thiobencarb	80.7	85.9	P/P	50 - 150
2313285	Triadimefon	97.1	94.0	P/P	50 - 150

Reference Method: EPA 8270E
Batch ID: P411315

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2312248	Aldrin	63.2	64.4	P/P	10 - 89.0
2312248	Alpha-BHC	82.2	81.1	P/P	71 - 105
2312248	Alpha-Chlordane	73.5	72.4	P/P	43 - 107
2312248	Beta-BHC	113	105	P/P	57 - 152
2312248	Beta-Cyfluthrin	81.3	81.2	P/P	29 - 186
2312248	Bifenthrin	121	101	F/P	19 - 119
2312248	Chlorothalonil	153	138	P/P	10 - 245
2312248	Cis-Nonachlor	58.8	61.3	P/P	36 - 110
2312248	Cypermethrin	81.0	80.3	P/P	24 - 169
2312248	Dacthal	82.6	82.1	P/P	62 - 115
2312248	DDD-p,p'	74.5	73.5	P/P	36 - 109

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P411315

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2312248	DDE-p,p'	65.1	66.0	P/P	30 - 114
2312248	DDT-p,p'	78.0	78.6	P/P	42 - 108
2312248	Delta-BHC	129	119	P/P	60 - 164
2312248	Deltamethrin	99.0	99.4	P/P	10 - 210
2312248	Dichlobenil	70.6	81.8	P/P	23 - 108
2312248	Dicofol	76.8	79.6	P/P	44 - 109
2312248	Dieldrin	71.5	73.5	P/P	37 - 119
2312248	Endosulfan I	76.9	76.2	P/P	52 - 105
2312248	Endosulfan II	72.3	70.4	P/P	35 - 127
2312248	Endosulfan Sulfate	73.9	71.3	P/P	39 - 130
2312248	Endrin	65.9	70.2	P/P	30 - 116
2312248	Endrin Aldehyde	74.7	74.8	P/P	20 - 110
2312248	Endrin Ketone	91.0	87.3	P/P	48 - 134
2312248	Esfenvalerate	87.4	85.9	P/P	10 - 199
2312248	Ethalfuralin	66.4	68.0	P/P	48 - 95.0
2312248	Fenpropathrin	80.4	85.3	P/P	37 - 121
2312248	Gamma-BHC	84.1	83.6	P/P	61 - 126
2312248	Gamma-Chlordane	75.2	75.1	P/P	39 - 105
2312248	Heptachlor	70.8	70.4	P/P	38 - 96.0
2312248	Heptachlor Epoxide	104	97.1	P/P	42 - 114
2312248	Hexachlorobenzene	77.9	79.6	P/P	39 - 93.0
2312248	Kepone	84.0	82.3	P/P	10 - 215
2312248	Lambda-Cyhalothrin	97.4	99.0	P/P	10 - 204
2312248	Methoprene	72.0	70.9	P/P	17 - 108
2312248	Methoxychlor	113	112	P/P	56 - 115
2312248	MGK-264	84.9	82.6	P/P	35 - 120
2312248	Mirex	61.8	62.2	P/P	10 - 178
2312248	Oxychlordane	75.0	71.8	P/P	47 - 91.0
2312248	Permethrin	90.1	85.1	P/P	27 - 170
2312248	Phenothrin	119	98.6	P/P	10 - 133
2312248	Piperonyl Butoxide	102	102	P/P	23 - 150
2312248	Prallethrin	63.2	65.4	P/P	21 - 113
2312248	Tau-Fluvalinate	84.7	84.1	P/P	16 - 158
2312248	Tetramethrin	145	145	F/F	22 - 132
2312248	Trans-Nonachlor	70.9	68.6	P/P	43 - 102
2312248	Triclosan Methyl	69.7	69.0	P/P	49 - 109
2312248	Trifluralin	83.1	83.1	P/P	48 - 93.0
2312744	PCB-1016	76.7	75.7	P/P	46 - 110
2312744	PCB-1260	71.3	75.8	P/P	42 - 111

Reference Method: EPA 8276

Batch ID: P411315

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2312744	Chlordane	87.7	82.9	P/P	55 - 128
2312744	Toxaphene	69.8	73.5	P/P	57 - 211

Reference Method: EPA 8321B

Batch ID: 411114

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2311732	2,4-D	65.3	85.0	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: 411114

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2311732	2,4,5-T	47.7	51.2	P/P	40 - 150
2311732	Acetaminophen	108	101	P/P	30 - 150
2311732	Acetamiprid	82.6	83.5	P/P	40 - 150
2311732	Afidopyropen	61.9	74.2	P/P	40 - 150
2311732	Bentazon	91.3	83.3	P/P	30 - 150
2311732	Benzovindiflupyr	108	85.8	P/P	40 - 150
2311732	Carbamazepine	121	92.5	P/P	40 - 150
2311732	Clothianidin	99.3	97.7	P/P	40 - 150
2311732	Dinotefuran	123	119	P/P	40 - 150
2311732	Diuron	71.0	86.7	P/P	40 - 150
2311732	Fenuron	119	84.3	P/P	40 - 150
2311732	Fluridone	89.8	87.9	P/P	40 - 150
2311732	Hydrocodone	98.5	98.9	P/P	40 - 150
2311732	Ibuprofen	45.1	45.8	P/P	40 - 150
2311732	Imazapyr	96.1	120	P/P	40 - 150
2311732	Imidacloprid	147	142	P/P	40 - 150
2311732	Linuron	66.2	118	P/P	40 - 150
2311732	Mandestrobin	100	94.4	P/P	40 - 150
2311732	MCCP	83.1	100	P/P	40 - 150
2311732	Naproxen	61.0	55.7	P/P	40 - 150
2311732	Primidone	135	128	P/P	40 - 150
2311732	Pyraclostrobin	85.2	93.9	P/P	40 - 150
2311732	Silvex	46.9	54.0	P/P	40 - 150
2311732	Thiamethoxam	135	137	P/P	40 - 150
2311732	Tolfenpyrad	36.8	48.3	P/P	30 - 150
2311732	Triclopyr	52.9	55.7	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P411107

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2312010	Acesulfame K	96.6	99.3	P/P	40 - 150
2312010	AMPA	79.6	79.5	P/P	40 - 150
2312010	Endothall	101	102	P/P	40 - 150
2312010	Glufosinate	105	104	P/P	40 - 150
2312010	Glyphosate	126	127	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P411316

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2312240	3-Hydroxycarbofuran	92.3	90.4	P/P	30 - 160
2312240	Aldicarb	67.1	72.8	P/P	30 - 150
2312240	Aldicarb Sulfone	104	94.0	P/P	30 - 160
2312240	Aldicarb Sulfoxide	54.5	53.7	P/P	30 - 160
2312240	Carbaryl	45.8	43.0	P/P	30 - 160
2312240	Carbofuran	46.0	45.6	P/P	30 - 160
2312240	Methiocarb	61.6	73.5	P/P	30 - 160
2312240	Methomyl	87.4	87.1	P/P	30 - 160
2312240	Oxamyl	84.7	83.0	P/P	30 - 160
2312240	Propoxur	45.4	42.0	P/P	30 - 160

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: SM 4500 F-C-2011
Batch ID: P411204

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2312293	Fluoride	99.7	99.1	P/P	92 - 107

Reference Method: SM 5310 B-2011
Batch ID: P411217

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2311943	Organic Carbon	106		P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P411177

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2312195	Color (true)	1.14	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P411130

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2312335	Turbidity	11.0	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P411149

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2312474	Calcium	1.38	Spike	P	0 - 20
2312474	Iron	1.27	Spike	P	0 - 20
2312474	Magnesium	1.81	Spike	P	0 - 20
2312474	Potassium	0.509	Spike	P	0 - 20
2312474	Sodium	0.180	Spike	P	0 - 20
2312474	Strontium	0.0231	Spike	P	0 - 20
2312474	Tin	0.701	Spike	P	0 - 20
2312474	Titanium	1.09	Spike	P	0 - 20
2312474	Vanadium	0.618	Spike	P	0 - 20
2312474	Zinc	1.18	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P411149

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2312474	Aluminum	0.912	Spike	P	0 - 20
2312474	Antimony	1.41	Spike	P	0 - 20
2312474	Arsenic	1.25	Spike	P	0 - 20
2312474	Barium	0.408	Spike	P	0 - 20
2312474	Beryllium	2.79	Spike	P	0 - 20
2312474	Boron	0.137	Spike	P	0 - 20
2312474	Cadmium	0.615	Spike	P	0 - 20
2312474	Chromium	0.346	Spike	P	0 - 20
2312474	Cobalt	0.603	Spike	P	0 - 20
2312474	Copper	0.611	Spike	P	0 - 20
2312474	Lead	0.527	Spike	P	0 - 20
2312474	Manganese	0.120	Spike	P	0 - 20
2312474	Molybdenum	0.455	Spike	P	0 - 20
2312474	Nickel	0.0196	Spike	P	0 - 20
2312474	Selenium	14.1	Spike	P	0 - 20
2312474	Silver	0.0837	Spike	P	0 - 20
2312474	Thallium	0.492	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411424

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2312292	Chloride	0.166	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411427

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2312292	Sulfate	0.133	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P411183

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2312197	Ammonia-N	1.17	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P411184

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2312221	Ammonia-N	0.221	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P411219

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2311929	Kjeldahl Nitrogen	3.38	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P411275

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2312165	Kjeldahl Nitrogen	6.93	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P411224

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2312165	NO2NO3-N	1.02	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P411389

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2312277	Total-P	1.45	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P411232

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2313285	Acetochlor	10.4	Spike	P	0 - 27
2313285	Alachlor	14.2	Spike	P	0 - 27
2313285	Ametryn	2.44	Spike	P	0 - 34
2313285	Atrazine	4.69	Spike	P	0 - 41
2313285	Atrazine Desethyl	8.97	Spike	P	0 - 38
2313285	Avobenzone	5.72	Spike	P	0 - 30
2313285	Azinphos Methyl	24.7	Spike	P	0 - 62
2313285	Azoxystrobin	26.2	Spike	P	0 - 32
2313285	Bromacil	1.23	Spike	P	0 - 30
2313285	Butylate	6.22	Spike	P	0 - 59
2313285	Caffeine	13.8	Spike	P	0 - 60
2313285	Carbophenothion	0.470	Spike	P	0 - 25
2313285	Carfentrazone Ethyl	8.13	Spike	P	0 - 26
2313285	Chlorfenapyr	6.33	Spike	P	0 - 30
2313285	Chlorpyrifos Ethyl	9.27	Spike	P	0 - 27
2313285	Chlorpyrifos Methyl	1.18	Spike	P	0 - 26
2313285	Coumaphos	1.73	Spike	P	0 - 30
2313285	Cyanazine	1.05	Spike	P	0 - 58
2313285	Cyprodinil	11.2	Spike	P	0 - 30
2313285	Demeton	1.60	Spike	P	0 - 25
2313285	Diazinon	3.82	Spike	P	0 - 29
2313285	Difenoconazole	29.9	Spike	F	0 - 25
2313285	Dimethenamid	4.85	Spike	P	0 - 30
2313285	Dimethomorph	46.8	Spike	F	0 - 30
2313285	Disulfoton	3.46	Spike	P	0 - 33
2313285	Dithiopyr	4.65	Spike	P	0 - 22
2313285	EPTC	8.98	Spike	P	0 - 38
2313285	Ethion	45.3	Spike	P	0 - 79
2313285	Ethoprop	4.50	Spike	P	0 - 23
2313285	Etridiazole	19.9	Spike	P	0 - 30
2313285	Fenamiphos	7.91	Spike	P	0 - 58
2313285	Fenbuconazole	41.4	Spike	F	0 - 37
2313285	Fipronil	13.1	Spike	P	0 - 33
2313285	Fipronil Desulfinyl	6.39	Spike	P	0 - 26
2313285	Fipronil Sulfide	3.41	Spike	P	0 - 37
2313285	Fipronil Sulfone	5.52	Spike	P	0 - 50
2313285	Fluazifop-P-butyl	0.416	Spike	P	0 - 24
2313285	Fludioxonil	6.31	Spike	P	0 - 26
2313285	Flumioxazin	20.9	Spike	P	0 - 37
2313285	Flutolanil	21.0	Spike	P	0 - 26
2313285	Fluxapyroxad	10.5	Spike	P	0 - 34
2313285	Fonofos	12.0	Spike	P	0 - 27
2313285	Hexazinone	6.68	Spike	P	0 - 36
2313285	Imazalil	29.3	Spike	P	0 - 65
2313285	Iprodione	11.7	Spike	P	0 - 33
2313285	Loratadine	60.4	Spike	F	0 - 30
2313285	Malathion	1.71	Spike	P	0 - 44
2313285	Metalaxyl	3.89	Spike	P	0 - 38
2313285	Metolachlor	14.5	Spike	P	0 - 36
2313285	Metribuzin	5.93	Spike	P	0 - 63
2313285	Mevinphos	1.20	Spike	P	0 - 26

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P411232

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2313285	Molinate	8.24	Spike	P	0 - 40
2313285	Myclobutanil	1.23	Spike	P	0 - 21
2313285	Naled	6.16	Spike	P	0 - 26
2313285	Napropamide	13.2	Spike	P	0 - 30
2313285	Norflurazon	12.1	Spike	P	0 - 24
2313285	Octinoxate	2.06	Spike	P	0 - 30
2313285	Oxadiazon	14.6	Spike	P	0 - 27
2313285	Oxybenzone	3.93	Spike	P	0 - 30
2313285	Oxyfluorfen	0.971	Spike	P	0 - 24
2313285	Parathion Ethyl	0.638	Spike	P	0 - 28
2313285	Parathion Methyl	7.70	Spike	P	0 - 27
2313285	Pendimethalin	34.7	Spike	F	0 - 31
2313285	Phenytoin	81.4	Spike	F	0 - 30
2313285	Phorate	3.51	Spike	P	0 - 27
2313285	Prodiamine	2.12	Spike	P	0 - 52
2313285	Prometon	0.884	Spike	P	0 - 31
2313285	Prometryn	1.96	Spike	P	0 - 28
2313285	Pronamide	9.56	Spike	P	0 - 26
2313285	Propanil	5.47	Spike	P	0 - 30
2313285	Propargite	26.4	Spike	P	0 - 30
2313285	Propiconazole	20.8	Spike	P	0 - 31
2313285	Pyraflufen Ethyl	9.72	Spike	P	0 - 30
2313285	Pyridaben	6.83	Spike	P	0 - 30
2313285	Pyriproxyfen	4.19	Spike	P	0 - 50
2313285	Simazine	25.2	Spike	P	0 - 29
2313285	Stirophos	24.0	Spike	P	0 - 30
2313285	Sulfentrazone	13.8	Spike	P	0 - 33
2313285	Tebuconazole	28.2	Spike	P	0 - 44
2313285	Terbufos	0.838	Spike	P	0 - 29
2313285	Terbutylazine	8.73	Spike	P	0 - 27
2313285	Thiobencarb	6.31	Spike	P	0 - 30
2313285	Triadimefon	3.24	Spike	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P411315

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2312248	Aldrin	1.77	Spike	P	0 - 37
2312248	Alpha-BHC	1.36	Spike	P	0 - 16
2312248	Alpha-Chlordane	1.57	Spike	P	0 - 28
2312248	Beta-BHC	6.91	Spike	P	0 - 32
2312248	Beta-Cyfluthrin	0.119	Spike	P	0 - 41
2312248	Bifenthrin	18.3	Spike	P	0 - 36
2312248	Chlorothalonil	10.7	Spike	P	0 - 54
2312248	Cis-Nonachlor	4.11	Spike	P	0 - 33
2312248	Cypermethrin	0.773	Spike	P	0 - 38
2312248	Dacthal	0.689	Spike	P	0 - 23
2312248	DDD-p,p'	1.37	Spike	P	0 - 35
2312248	DDE-p,p'	1.25	Spike	P	0 - 27
2312248	DDT-p,p'	0.797	Spike	P	0 - 31

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P411315

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2312248	Delta-BHC	8.18	Spike	P	0 - 30
2312248	Deltamethrin	0.421	Spike	P	0 - 76
2312248	Dichlobenil	11.4	Spike	P	0 - 33
2312248	Dicofol	3.53	Spike	P	0 - 24
2312248	Dieldrin	2.77	Spike	P	0 - 35
2312248	Endosulfan I	0.932	Spike	P	0 - 25
2312248	Endosulfan II	2.69	Spike	P	0 - 31
2312248	Endosulfan Sulfate	3.47	Spike	P	0 - 38
2312248	Endrin	6.33	Spike	P	0 - 53
2312248	Endrin Aldehyde	0.0747	Spike	P	0 - 81
2312248	Endrin Ketone	4.13	Spike	P	0 - 33
2312248	Esfenvalerate	1.67	Spike	P	0 - 46
2312248	Ethalfuralin	2.41	Spike	P	0 - 22
2312248	Fenpropathrin	5.89	Spike	P	0 - 29
2312248	Gamma-BHC	0.505	Spike	P	0 - 17
2312248	Gamma-Chlordane	0.208	Spike	P	0 - 28
2312248	Heptachlor	0.465	Spike	P	0 - 28
2312248	Heptachlor Epoxide	7.10	Spike	P	0 - 23
2312248	Hexachlorobenzene	2.08	Spike	P	0 - 22
2312248	Kepone	1.99	Spike	P	0 - 61
2312248	Lambda-Cyhalothrin	1.63	Spike	P	0 - 52
2312248	Methoprene	1.57	Spike	P	0 - 38
2312248	Methoxychlor	0.403	Spike	P	0 - 29
2312248	MGK-264	2.71	Spike	P	0 - 41
2312248	Mirex	0.678	Spike	P	0 - 39
2312248	Oxychlordane	4.41	Spike	P	0 - 33
2312248	Permethrin	5.78	Spike	P	0 - 39
2312248	Phenothrin	18.4	Spike	P	0 - 52
2312248	Piperonyl Butoxide	0.216	Spike	P	0 - 91
2312248	Prallethrin	3.33	Spike	P	0 - 34
2312248	Tau-Fluvalinate	0.698	Spike	P	0 - 41
2312248	Tetramethrin	0.0127	Spike	P	0 - 43
2312248	Trans-Nonachlor	3.40	Spike	P	0 - 31
2312248	Triclosan Methyl	0.926	Spike	P	0 - 24
2312248	Trifluralin	0.0414	Spike	P	0 - 23
2312744	PCB-1016	1.28	Spike	P	0 - 22
2312744	PCB-1260	6.13	Spike	P	0 - 30

Reference Method: EPA 8276
Batch ID: P411315

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2312744	Chlordane	5.60	Spike	P	0 - 25
2312744	Toxaphene	5.27	Spike	P	0 - 24

Reference Method: EPA 8321B
Batch ID: 411114

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
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Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: 411114

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2311732	2,4-D	26.2	Spike	P	0 - 30
2311732	2,4,5-T	6.99	Spike	P	0 - 30
2311732	Acetaminophen	6.63	Spike	P	0 - 30
2311732	Acetamiprid	1.07	Spike	P	0 - 30
2311732	Afidopyropen	18.0	Spike	P	0 - 30
2311732	Bentazon	9.17	Spike	P	0 - 30
2311732	Benzovindiflupyr	22.6	Spike	P	0 - 30
2311732	Carbamazepine	26.9	Spike	P	0 - 30
2311732	Clothianidin	1.59	Spike	P	0 - 30
2311732	Dinotefuran	2.99	Spike	P	0 - 30
2311732	Diuron	19.9	Spike	P	0 - 30
2311732	Fenuron	27.6	Spike	P	0 - 30
2311732	Fluridone	2.17	Spike	P	0 - 30
2311732	Hydrocodone	0.343	Spike	P	0 - 30
2311732	Ibuprofen	1.52	Spike	P	0 - 30
2311732	Imazapyr	22.1	Spike	P	0 - 30
2311732	Imidacloprid	3.20	Spike	P	0 - 30
2311732	Linuron	56.2	Spike	F	0 - 30
2311732	Mandestrobin	6.02	Spike	P	0 - 30
2311732	MCPP	18.6	Spike	P	0 - 30
2311732	Naproxen	9.05	Spike	P	0 - 30
2311732	Primidone	5.23	Spike	P	0 - 30
2311732	Pyraclostrobin	9.77	Spike	P	0 - 30
2311732	Silvex	14.0	Spike	P	0 - 30
2311732	Thiamethoxam	1.34	Spike	P	0 - 30
2311732	Tolfenpyrad	26.9	Spike	P	0 - 30
2311732	Triclopyr	5.14	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P411107

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2312010	Acesulfame K	2.62	Spike	P	0 - 30
2312010	AMPA	0.0995	Spike	P	0 - 30
2312010	Endothall	1.05	Spike	P	0 - 30
2312010	Glufosinate	0.946	Spike	P	0 - 30
2312010	Glyphosate	0.871	Spike	P	0 - 30
2312010	Sucralose	1.81	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P411316

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2312240	3-Hydroxycarbofuran	2.11	Spike	P	0 - 30
2312240	Aldicarb	8.22	Spike	P	0 - 30
2312240	Aldicarb Sulfone	10.6	Spike	P	0 - 30
2312240	Aldicarb Sulfoxide	1.42	Spike	P	0 - 30
2312240	Carbaryl	5.32	Spike	P	0 - 30
2312240	Carbofuran	0.769	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P411316

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2312240	Methiocarb	17.5	Spike	P	0 - 30
2312240	Methomyl	0.343	Spike	P	0 - 30
2312240	Oxamyl	2.05	Spike	P	0 - 30
2312240	Propoxur	7.60	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P411201

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2312293	Total Alkalinity	2.56	Sample	P	0 - 5.2

Reference Method: SM 2540 C-2011
Batch ID: P411580

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2312205	TDS	4.38	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P411204

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2312293	Fluoride	0.500	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
Batch ID: P411217

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2311943	Organic Carbon	0.730	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2312271
Field Sample ID: G1SD0061

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	77.2	P	30 - 160
EPA 8321B	Acetaminophen-d4	97.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	97.3	P	30 - 160
EPA 8321B	Diuron-d6	75.5	P	30 - 160
EPA 8321B	Endothall-d6	92.8	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	87.2	P	30 - 160
EPA 8321B	Ibuprofen-d3	62.2	P	30 - 160
EPA 8321B	Primidone-d5	95.0	P	30 - 160
EPA 8321B	Sucralose-d6	52.4	P	30 - 160

Lab Sample ID: 2312272
Field Sample ID: G3SD0221

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	50.9	P	30 - 160

Lab Sample ID: 2312273
Field Sample ID: G3SD0221

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	68.2	P	30 - 160
EPA 8321B	Acetaminophen-d4	86.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	82.2	P	30 - 160
EPA 8321B	Diuron-d6	62.7	P	30 - 160
EPA 8321B	Endothall-d6	97.4	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	89.4	P	30 - 160
EPA 8321B	Ibuprofen-d3	55.2	P	30 - 160
EPA 8321B	Primidone-d5	103	P	30 - 160
EPA 8321B	Sucralose-d6	56.8	P	30 - 160

Lab Sample ID: 2312274
Field Sample ID: G3SD0221

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	55.0	P	38 - 115
EPA 8270E	Decachlorobiphenyl	76.3	P	31 - 118
EPA 8270E	Tetrachloro-m-xylene	71.2	P	29 - 98.0
EPA 8270E	Tetrachloro-m-xylene	80.2	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	68.0	P	30 - 97.0
EPA 8276	PCNB	79.1	P	45 - 119

Lab Sample ID: 2312275
Field Sample ID: G3SD0221

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	67.2	P	20 - 200
EPA 8270E	Simazine-d10	102	P	71 - 140
EPA 8270E	Terbufos-d10	106	P	62 - 131
EPA 8270E	Terphenyl-d14	103	P	55 - 108

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A110947

Included Lab Sample IDs: 2312218, 2312220

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

Reference Method: DEP SOP: NU-094-1

Run ID: A110969

Included Lab Sample IDs: 2312218, 2312220

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.2	99.3	P/P	85 - 115

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A110971

Included Lab Sample IDs: 2312219, 2312221

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.8	98.1	P/P	90 - 110
Ammonia-N	99.3	97.8	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A110979

Included Lab Sample IDs: 2312218, 2312220

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.4	96.2	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A110979

Included Lab Sample IDs: 2312218, 2312220

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

Reference Method: EPA 8321B

Run ID: A110984

Included Lab Sample IDs: 2312271, 2312273

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	91.7	87.7	P/P	60 - 160
Endothall	89.7	94.9	P/P	60 - 160
Glufosinate	96.1	86.6	P/P	60 - 160
Glyphosate	96.8	90.5	P/P	60 - 160

Reference Method: SM 5310 B-2011

Run ID: A110989

Included Lab Sample IDs: 2312219, 2312221

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.4	97.9	P/P	90 - 110
Organic Carbon	97.9	97.2	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A110990

Included Lab Sample IDs: 2312271, 2312273

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	103	99.6	P/P	60 - 160
Sucralose	88.7	87.4	P/P	60 - 160

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A110993

Included Lab Sample IDs: 2312219, 2312221

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	101	99.5	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A110994

Included Lab Sample IDs: 2312218, 2312220

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A111011

Included Lab Sample IDs: 2312279

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	98.0	97.4	P/P	90 - 110
Antimony	96.8	96.3	P/P	90 - 110
Arsenic	97.2	95.5	P/P	90 - 110
Barium	99.0	97.6	P/P	90 - 110
Beryllium	96.7	95.6	P/P	90 - 110
Boron	96.5	96.5	P/P	90 - 110
Cadmium	98.9	98.0	P/P	90 - 110
Chromium	99.1	98.1	P/P	90 - 110
Cobalt	96.3	94.5	P/P	90 - 110
Copper	96.0	93.6	P/P	90 - 110
Lead	94.3	93.6	P/P	90 - 110
Manganese	98.2	97.3	P/P	90 - 110
Molybdenum	97.0	96.2	P/P	90 - 110
Nickel	95.8	93.3	P/P	90 - 110
Selenium	98.7	97.7	P/P	90 - 110
Silver	96.2	95.9	P/P	90 - 110
Thallium	99.2	97.3	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A111012

Included Lab Sample IDs: 2312279

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	100	102	P/P	90 - 110
Iron	99.9	102	P/P	90 - 110
Magnesium	101	102	P/P	90 - 110
Potassium	102	104	P/P	90 - 110
Sodium	101	102	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A111012

Included Lab Sample IDs: 2312279

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Strontium	97.9	101	P/P	90 - 110
Titanium	95.9	98.7	P/P	90 - 110
Vanadium	96.6	99.5	P/P	90 - 110
Zinc	101	104	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A111025

Included Lab Sample IDs: 2312271, 2312273

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	99.5	94.7	P/P	50 - 150
2,4,5-T	92.8	108	P/P	50 - 150
Acetaminophen	110	110	P/P	60 - 160
Acetamiprid	106	110	P/P	50 - 150
Afidopyropen	113	105	P/P	50 - 150
Bentazon	126	94.5	P/P	50 - 160
Benzovindiflupyr	103	116	P/P	50 - 150
Carbamazepine	104	123	P/P	60 - 150
Clothianidin	110	118	P/P	60 - 150
Dinotefuran	108	112	P/P	50 - 150
Diuron	93.9	98.2	P/P	60 - 160
Fenuron	101	99.9	P/P	60 - 150
Fluridone	108	110	P/P	60 - 160
Hydrocodone	107	108	P/P	60 - 150
Ibuprofen	80.7	75.3	P/P	50 - 160
Imazapyr	77.0	102	P/P	50 - 150
Imidacloprid	97.6	112	P/P	60 - 150
Linuron	115	145	P/P	60 - 150
Mandestrobin	106	109	P/P	50 - 150
MCPP	93.7	103	P/P	50 - 150
Naproxen	84.1	101	P/P	50 - 160
Primidone	78.5	94.6	P/P	60 - 150
Pyraclostrobin	115	113	P/P	60 - 150
Silvex	117	93.6	P/P	50 - 150
Thiamethoxam	115	108	P/P	50 - 150
Tolfenpyrad	93.8	75.5	P/P	60 - 150
Triclopyr	93.3	116	P/P	50 - 150

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A111063

Included Lab Sample IDs: 2312219

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A111094

Included Lab Sample IDs: 2312279

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Tin	97.2	99.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
 Run ID: A111106
 Included Lab Sample IDs: 2312275

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	105		P	80 - 120
Alachlor	107		P	80 - 120
Ametryn	111		P	80 - 120
Atrazine	98.6		P	80 - 120
Atrazine Desethyl	97.8		P	80 - 120
Azinphos Methyl	94.2		P	80 - 120
Azoxystrobin	97.0		P	80 - 120
Bromacil	105		P	80 - 120
Butylate	93.8		P	80 - 120
Caffeine	94.8		P	80 - 120
Carbophenothion	107		P	80 - 120
Carfentrazone Ethyl	113		P	80 - 120
Chlorfenapyr	101		P	80 - 120
Chlorpyrifos Ethyl	104		P	80 - 120
Chlorpyrifos Methyl	110		P	80 - 120
Coumaphos	107		P	80 - 120
Cyanazine	94.8		P	80 - 120
Cyprodinil	106		P	80 - 120
Demeton	102		P	80 - 120
Diazinon	109		P	80 - 120
Dimethenamid	109		P	80 - 120
Dimethomorph	100		P	80 - 120
Disulfoton	101		P	80 - 120
Dithiopyr	114		P	80 - 120
EPTC	101		P	80 - 120
Ethion	100		P	80 - 120
Ethoprop	105		P	80 - 120
Etridiazole	104		P	80 - 120
Fenamiphos	100		P	80 - 120
Fenbuconazole	91.6		P	80 - 120
Fipronil	104		P	80 - 120
Fipronil Desulfinyl	119		P	80 - 120
Fipronil Sulfide	120		P	80 - 120
Fipronil Sulfone	102		P	80 - 120
Fludioxonil	111		P	80 - 120
Flumioxazin	88.6		P	80 - 120
Flutolanil	104		P	80 - 120
Fluxapyroxad	119		P	80 - 120
Fonofos	103		P	80 - 120
Imazalil	115		P	80 - 120
Iprodione	102		P	80 - 120
Loratadine	100		P	80 - 120
Malathion	98.6		P	80 - 120
Metolachlor	101		P	80 - 120
Metribuzin	96.4		P	80 - 120
Mevinphos	107		P	80 - 120
Molinate	99.1		P	80 - 120
Myclobutanil	105		P	80 - 120
Naled	104		P	80 - 120
Napropamide	107		P	80 - 120
Oxadiazon	108		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A111106
Included Lab Sample IDs: 2312275

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Oxyfluorfen	111		P	80 - 120
Parathion Ethyl	98.4		P	80 - 120
Parathion Methyl	104		P	80 - 120
Pendimethalin	107		P	80 - 120
Phenytol	90.1		P	80 - 120
Phorate	108		P	80 - 120
Prometon	92.0		P	80 - 120
Prometryn	110		P	80 - 120
Pronamide	103		P	80 - 120
Propanil	113		P	80 - 120
Propargite	94.9		P	80 - 120
Propiconazole	104		P	80 - 120
Pyraflufen Ethyl	106		P	80 - 120
Pyridaben	98.2		P	80 - 120
Pyriproxyfen	101		P	80 - 120
Simazine	102		P	80 - 120
Stirophos	92.4		P	80 - 120
Sulfentrazone	114		P	80 - 120
Tebuconazole	95.0		P	80 - 120
Terbufos	108		P	80 - 120
Terbutylazine	108		P	80 - 120
Thiobencarb	102		P	80 - 120
Triadimefon	105		P	80 - 120

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A111110
Included Lab Sample IDs: 2312219, 2312221

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

Reference Method: EPA 8276
Run ID: A111114
Included Lab Sample IDs: 2312274

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	96.9		P	80 - 120
Toxaphene	97.5		P	80 - 120

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A111130
Included Lab Sample IDs: 2312221

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	102	92.7	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A111150
Included Lab Sample IDs: 2312274

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

Reference Method: EPA 8270E
Run ID: A111150
Included Lab Sample IDs: 2312274

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	97.6		P	80 - 120
Alpha-BHC	100		P	80 - 120
Alpha-Chlordane	95.6		P	80 - 120
Beta-BHC	97.2		P	80 - 120
Beta-Cyfluthrin	93.3		P	80 - 120
Bifenthrin	97.3		P	80 - 120
Chlorothalonil	96.0		P	80 - 120
Cis-Nonachlor	99.0		P	80 - 120
Cypermethrin	94.3		P	80 - 120
Dacthal	96.8		P	80 - 120
DDD-p,p'	96.1		P	80 - 120
DDE-p,p'	99.0		P	80 - 120
DDT-p,p'	101		P	80 - 120
Delta-BHC	95.7		P	80 - 120
Deltamethrin	91.8		P	80 - 120
Dichlobenil	93.8		P	80 - 120
Dicofol	97.7		P	80 - 120
Dieldrin	98.3		P	80 - 120
Endosulfan I	98.6		P	80 - 120
Endosulfan II	93.0		P	80 - 120
Endosulfan Sulfate	92.7		P	80 - 120
Endrin	97.8		P	80 - 120
Endrin Aldehyde	85.1		P	80 - 120
Endrin Ketone	94.0		P	80 - 120
Esfenvalerate	93.7		P	80 - 120
Ethalfuralin	101		P	80 - 120
Fenpropathrin	92.7		P	80 - 120
Gamma-BHC	100		P	80 - 120
Gamma-Chlordane	93.9		P	80 - 120
Heptachlor	97.3		P	80 - 120
Heptachlor Epoxide	96.3		P	80 - 120
Hexachlorobenzene	99.4		P	80 - 120
Kepone	93.8		P	80 - 120
Lambda-Cyhalothrin	94.8		P	80 - 120
Methoprene	104		P	80 - 120
Methoxychlor	97.4		P	80 - 120
MGK-264	98.8		P	80 - 120
Mirex	98.8		P	80 - 120
Oxychlordane	95.3		P	80 - 120
Permethrin	98.2		P	80 - 120
Phenothrin	97.3		P	80 - 120
Piperonyl Butoxide	94.2		P	80 - 120
Prallethrin	98.7		P	80 - 120
Tau-Fluvalinate	94.0		P	80 - 120
Tetramethrin	99.2		P	80 - 120
Trans-Nonachlor	100		P	80 - 120
Triclosan Methyl	97.0		P	80 - 120
Trifluralin	99.3		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A111176
Included Lab Sample IDs: 2312275

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Difenoconazole	93.0		P	80 - 120
Fluazifop-P-butyl	101		P	80 - 120
Hexazinone	103		P	80 - 120
Metalaxyl	108		P	80 - 120
Norflurazon	96.2		P	80 - 120
Prodiamine	122*		F	80 - 120

Reference Method: EPA 8270E
Run ID: A111180
Included Lab Sample IDs: 2312274

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	110		P	80 - 120
PCB-1260	105		P	80 - 120

Reference Method: EPA 8321B
Run ID: A111189
Included Lab Sample IDs: 2312272

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	113	111	P/P	60 - 150
Aldicarb	107	90.3	P/P	60 - 150
Aldicarb Sulfone	102	108	P/P	50 - 150
Aldicarb Sulfoxide	71.0	68.3	P/P	50 - 150
Carbaryl	76.4	70.0	P/P	60 - 150
Carbofuran	72.5	65.5	P/P	50 - 150
Methiocarb	94.5	85.9	P/P	50 - 150
Methomyl	99.1	96.4	P/P	50 - 150
Oxamyl	106	103	P/P	50 - 150
Propoxur	71.4	75.7	P/P	50 - 150

Reference Method: EPA 8270E
Run ID: A111263
Included Lab Sample IDs: 2312275

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Avobenzone	104		P	80 - 120
Octinoxate	94.9		P	80 - 120
Oxybenzone	103		P	80 - 120

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

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			LCS	Precision	MS
							SMP	
DEP SOP: NU-094-1	Color (true)	98.4					1.14	
EPA 180.1 Rev. 2.0	Turbidity	97.1					11.0	
EPA 200.7 Rev. 4.4	Calcium	103		104				1.38
	Iron	105	104	108	109			1.27
	Magnesium	103	104	104				1.81
	Potassium	105	102	105	104			0.509
	Sodium	103	104	106				0.180
	Strontium	104	103	106	106			0.0231
	Tin	103	96.1	103	104			0.701
	Titanium	103	99.3	104	105			1.09
	Vanadium	96.9	98.0	100	101			0.618
	Zinc	104	101	103	104			1.18
EPA 200.8 Rev. 5.4	Aluminum	103	98.4	99.3	105			0.912
	Antimony	103	106	105	104			1.41
	Arsenic	103	104	103	103			1.25
	Barium	106	105	105	105			0.408
	Beryllium	102	101	97.8	98.0			2.79
	Boron	106	102	102	102			0.137
	Cadmium	104	103	104	105			0.615
	Chromium	99.4	102	102	104			0.346
	Cobalt	101	99.8	99.2	100			0.603
	Copper	99.8	95.5	95.0	94.2			0.611
	Lead	100	98.5	98.0	99.2			0.527
	Manganese	101	102	102	102			0.120
	Molybdenum	102	103	103	102			0.455
	Nickel	102	98.9	98.8	96.4			0.0196
	Selenium	103	15.6	18.0	101			14.1
	Silver	99.9	99.9	100	99.0			0.0837
	Thallium	104	105	105	107			0.492
EPA 300.0 Rev. 2.1	Chloride	103	100	103			0.166	
	Sulfate	102	100	102			0.133	
EPA 350.1 Rev. 2.0	Ammonia-N	99.8	98.2	97.0				1.17
	Ammonia-N	97.0	99.6	100				0.221
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	105	98.8	103				3.38
	Kjeldahl Nitrogen	101	92.3	103				6.93
EPA 353.2 Rev. 2.0	NO2NO3-N	98.5	94.8	95.8				1.02
EPA 365.1 Rev. 2.0	Total-P	103	104	106				1.45
EPA 8270E	Acetochlor	101	112	124				10.4
	Alachlor	92.5	91.0	105				14.2
	Aldrin	99.4	63.2	64.4				1.77
	Alpha-BHC	99.7	82.2	81.1				1.36
	Alpha-Chlordane	106	73.5	72.4				1.57
	Ametryn	72.7	93.5	91.3				2.44
	Atrazine	98.4						4.69
	Atrazine Desethyl	56.6	53.8	60.6				8.97
	Avobenzone	106	91.2	96.6				5.72
	Azinphos Methyl	97.0	107	137				24.7
	Azoxystrobin	93.6	99.0	129				26.2
	Beta-BHC	116	113	105				6.91
	Beta-Cyfluthrin	123	81.3	81.2				0.119
	Bifenthrin	121	121	101				18.3
	Bromacil	60.6	87.7	88.8				1.23
	Butylate	39.7	48.2	51.3				6.22
	Caffeine	93.2	101	85.2				13.8

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Carbophenothion	99.1	94.7	95.1			0.470
	Carfentrazone Ethyl	85.2	92.1	99.9			8.13
	Chlorfenapyr	103	85.7	91.3			6.33
	Chlorothalonil	138	153	138			10.7
	Chlorpyrifos Ethyl	94.5	78.9	86.6			9.27
	Chlorpyrifos Methyl	100	96.3	95.1			1.18
	Cis-Nonachlor	101	58.8	61.3			4.11
	Coumaphos	110	90.6	92.1			1.73
	Cyanazine	82.1	86.8	85.9			1.05
	Cypermethrin	116	81.0	80.3			0.773
	Cyprodinil	92.6	105	93.8			11.2
	Dacthal	110	82.6	82.1			0.689
	DDD-p,p'	104	74.5	73.5			1.37
	DDE-p,p'	110	65.1	66.0			1.25
	DDT-p,p'	105	78.0	78.6			0.797
	Delta-BHC	117	129	119			8.18
	Deltamethrin	125	99.0	99.4			0.421
	Demeton	75.2	81.7	80.4			1.60
	Diazinon	96.9	107	111			3.82
	Dichlobenil	99.0	70.6	81.8			11.4
	Dicofol	98.6	76.8	79.6			3.53
	Dieldrin	110	71.5	73.5			2.77
	Difenoconazole	94.8	104	76.7			29.9
	Dimethenamid	82.5	90.8	95.3			4.85
	Dimethomorph	155	140	225			46.8
	Disulfoton	80.1	73.4	76.0			3.46
	Dithiopyr	89.9	86.7	90.9			4.65
	Endosulfan I	106	76.9	76.2			0.932
	Endosulfan II	105	72.3	70.4			2.69
	Endosulfan Sulfate	103	73.9	71.3			3.47
	Endrin	106	65.9	70.2			6.33
	Endrin Aldehyde	105	74.7	74.8			0.0747
	Endrin Ketone	93.2	91.0	87.3			4.13
	EPTC	49.3	50.6	55.4			8.98
	Esfenvalerate	119	87.4	85.9			1.67
	Ethalfuralin	99.8	66.4	68.0			2.41
	Ethion	65.6	77.3	48.7			45.3
	Ethoprop	88.7	88.3	92.4			4.50
	Etridiazole	67.9	78.5	95.9			19.9
	Fenamiphos	63.8	68.7	74.3			7.91
	Fenbuconazole	64.1	73.7	112			41.4
	Fenpropathrin	121	80.4	85.3			5.89
	Fipronil	94.4	98.5	112			13.1
	Fipronil Desulfinyl	99.8	99.5	106			6.39
	Fipronil Sulfide	85.7	85.0	87.9			3.41
	Fipronil Sulfone	75.9	64.6	59.8			5.52
	Fluazifop-P-butyl	112	102	101			0.416
	Fludioxonil	74.6	92.5	98.5			6.31
	Flumioxazin	81.9	118	145			20.9
	Flutolanil	57.9	58.7	72.4			21.0
	Fluxapyroxad	72.1	76.5	85.0			10.5
	Fonofos	90.3	83.1	93.7			12.0
	Gamma-BHC	106	84.1	83.6			0.505
	Gamma-Chlordane	106	75.2	75.1			0.208

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Heptachlor	95.0	70.8	70.4		0.465
	Heptachlor Epoxide	102	104	97.1		7.10
	Hexachlorobenzene	107	77.9	79.6		2.08
	Hexazinone	83.4	91.7	85.8		6.68
	Imazalil	66.5	80.9	109		29.3
	Iprodione	73.2	87.0	97.8		11.7
	Kepone	88.3	84.0	82.3		1.99
	Lambda-Cyhalothrin	117	97.4	99.0		1.63
	Loratadine	119	112	209		60.4
	Malathion	96.6	82.1	83.5		1.71
	Metalaxyl	93.9	86.8	90.3		3.89
	Methoprene	119	72.0	70.9		1.57
	Methoxychlor	106	113	112		0.403
	Metolachlor	92.9	91.1	105		14.5
	Metribuzin	80.0	75.9	80.6		5.93
	Mevinphos	82.1	92.2	93.4		1.20
	MGK-264	109	84.9	82.6		2.71
	Mirex	110	61.8	62.2		0.678
	Molinate	54.3	63.5	68.9		8.24
	Myclobutanil	82.9	80.0	79.0		1.23
	Naled	73.1	69.3	73.7		6.16
	Napropamide	58.7	69.1	78.8		13.2
	Norflurazon	78.9	71.1	63.0		12.1
	Octinoxate	92.5	98.0	100		2.06
	Oxadiazon	71.7	69.8	80.8		14.6
	Oxybenzone	89.2	88.7	92.3		3.93
	Oxychlordane	98.5	75.0	71.8		4.41
	Oxyfluorfen	116	127	128		0.971
	Parathion Ethyl	84.1	86.6	86.1		0.638
	Parathion Methyl	93.0	124	115		7.70
	PCB-1016	74.7	76.7	75.7		1.28
	PCB-1260	72.4	71.3	75.8		6.13
	Pendimethalin	103	119	83.7		34.7
	Permethrin	129	90.1	85.1		5.78
	Phenothrin	121	119	98.6		18.4
	Phenytol	9.03	31.4	13.2		81.4
	Phorate	86.2	85.9	88.9		3.51
	Piperonyl Butoxide	107	102	102		0.216
	Prallethrin	102	63.2	65.4		3.33
	Prodiamine	33.1	49.4	50.5		2.12
	Prometon	74.8	80.7	80.0		0.884
	Prometryn	88.7	84.0	85.7		1.96
	Pronamide	93.9	101	111		9.56
	Propanil	97.9	119	113		5.47
	Propargite	55.7	66.5	51.0		26.4
	Propiconazole	72.2	70.3	57.1		20.8
	Pyraflufen Ethyl	78.1	71.7	65.1		9.72
	Pyridaben	97.7	87.4	93.6		6.83
	Pyriproxyfen	76.3	83.1	86.7		4.19
	Simazine	85.3	93.2	120		25.2
	Stirophos	55.7	55.6	43.7		24.0
	Sulfentrazone	32.2	97.7	114		13.8
	Tau-Fluvalinate	125	84.7	84.1		0.698
	Tebuconazole	45.9	55.7	41.9		28.2

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Terbufos	113	109	109			0.838
	Terbutylazine	93.8	100	109			8.73
	Tetramethrin	114	145	145			0.0127
	Thiobencarb	85.0	80.7	85.9			6.31
	Trans-Nonachlor	102	70.9	68.6			3.40
	Triadimefon	92.2	97.1	94.0			3.24
	Triclosan Methyl	106	69.7	69.0			0.926
	Trifluralin	103	83.1	83.1			0.0414
EPA 8276	Chlordane	83.7	87.7	82.9			5.60
	Toxaphene	75.7	69.8	73.5			5.27
EPA 8321B	2,4-D	83.4	65.3	85.0			26.2
	2,4,5-T	50.8	47.7	51.2			6.99
	3-Hydroxycarbofuran	80.4	92.3	90.4			2.11
	Acesulfame K	97.9	96.6	99.3			2.62
	Acetaminophen	96.9	108	101			6.63
	Acetamiprid	80.4	82.6	83.5			1.07
	Afidopyropen	54.2	61.9	74.2			18.0
	Aldicarb	60.6	67.1	72.8			8.22
	Aldicarb Sulfone	80.4	104	94.0			10.6
	Aldicarb Sulfoxide	83.7	54.5	53.7			1.42
	AMPA	92.8	79.6	79.5			0.0995
	Bentazon	92.7	91.3	83.3			9.17
	Benzovindiflupyr	114	108	85.8			22.6
	Carbamazepine	122	121	92.5			26.9
	Carbaryl	53.2	45.8	43.0			5.32
	Carbofuran	53.5	46.0	45.6			0.769
	Clothianidin	112	99.3	97.7			1.59
	Dinotefuran	106	123	119			2.99
	Diuron	93.3	71.0	86.7			19.9
	Endothall	88.9	101	102			1.05
	Fenuron	132	119	84.3			27.6
	Fluridone	91.9	89.8	87.9			2.17
	Glufosinate	108	105	104			0.946
	Glyphosate	90.9	126	127			0.871
	Hydrocodone	111	98.5	98.9			0.343
	Ibuprofen	46.0	45.1	45.8			1.52
	Imazapyr	106	96.1	120			22.1
	Imidacloprid	119	147	142			3.20
	Linuron	90.7	66.2	118			56.2
	Mandestrobin	92.9	100	94.4			6.02
	MCPP	92.7	83.1	100			18.6
	Methiocarb	69.5	61.6	73.5			17.5
	Methomyl	81.2	87.4	87.1			0.343
	Naproxen	52.4	61.0	55.7			9.05
	Oxamyl	87.1	84.7	83.0			2.05
	Primidone	144	135	128			5.23
	Propoxur	49.4	45.4	42.0			7.60
	Pyraclostrobin	86.6	85.2	93.9			9.77
	Silvex	47.7	46.9	54.0			14.0
	Sucralose	83.3					1.81
	Thiamethoxam	108	135	137			1.34
	Tolfenpyrad	40.9	36.8	48.3			26.9
	Triclopyr	55.7	52.9	55.7			5.14
SM 2320 B-2011	Total Alkalinity	97.4				2.56	

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery	LCS	Precision SMP	MS
SM 2540 C-2011	TDS				4.38	
SM 4500 F-C-2011	Fluoride	98.9	99.7 99.1			0.500
SM 5310 B-2011	Organic Carbon	94.4	106			0.730

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2312218, 2312220
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2312218, 2312220
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2312279
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2312279
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2312218, 2312220
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2312218, 2312220
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2312219, 2312221
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2312219, 2312221
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2312219, 2312221
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2312219, 2312221
EPA 8270E	Analysis of Sunscreen Compounds in Water by GC/MS-SIM	2312275
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2312274
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2312275
EPA 8270E	PCBs in water matrices by GC/MS/MS	2312274
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2312274
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2312272
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2312271, 2312273
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2312218, 2312220
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2312279
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2312218, 2312220
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2312218, 2312220
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2312218, 2312220
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2312219, 2312221

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	03/15/2022			03/15/2022 16:16	Anna M. Plaviak	2312218
	03/15/2022			03/15/2022 16:17	Anna M. Plaviak	2312220
EPA 180.1 Rev. 2.0	03/15/2022			03/15/2022 14:26	Khloe J Berg	2312218
	03/15/2022			03/15/2022 14:27	Khloe J Berg	2312220
EPA 200.7 Rev. 4.4	03/15/2022	03/16/2022 11:24	Emily M Philpot	03/17/2022 17:46	Josef B Mick	2312279
	03/15/2022	03/16/2022 11:24	Emily M Philpot	03/23/2022 02:29	Josef B Mick	2312279
EPA 200.8 Rev. 5.4	03/15/2022	03/16/2022 11:24	Emily M Philpot	03/17/2022 17:55	Alexander Thompson	2312279
EPA 300.0 Rev. 2.1	03/15/2022			03/18/2022 23:44	Anna M. Plaviak	2312218
	03/15/2022			03/18/2022 23:56	Anna M. Plaviak	2312220
EPA 350.1 Rev. 2.0	03/15/2022			03/16/2022 11:35	Ping Hua	2312219
	03/15/2022			03/16/2022 11:48	Ping Hua	2312221
EPA 351.2 Rev. 2.0	03/15/2022	03/18/2022 09:50	Samantha L Bates	03/21/2022 13:03	Alexandra J Mattheus	2312219
	03/15/2022	03/22/2022 11:30	Samantha L Bates	03/24/2022 11:47	Alexandra J Mattheus	2312221
EPA 353.2 Rev. 2.0	03/15/2022			03/17/2022 10:04	Beverly Y. Sanders	2312219
	03/15/2022			03/17/2022 10:05	Beverly Y. Sanders	2312221
EPA 365.1 Rev. 2.0	03/15/2022	03/22/2022 17:15	Simonne.V. Calhoun	03/23/2022 12:21	Sarah A Nixon	2312219
	03/15/2022	03/22/2022 17:15	Simonne.V. Calhoun	03/23/2022 12:22	Sarah A Nixon	2312221
EPA 8270E	03/15/2022	03/20/2022 12:00	Rasheda Ghaffari	03/22/2022 19:14	Vandana T. Nagar	2312274
	03/15/2022	03/20/2022 12:00	Rasheda Ghaffari	03/27/2022 06:17	Julie Wi	2312274
	03/15/2022	03/21/2022 08:30	Fe-Val Siddell	03/22/2022 21:00	Michael Poppell	2312275
	03/15/2022	03/21/2022 08:30	Fe-Val Siddell	03/25/2022 17:23	Michael Poppell	2312275
	03/15/2022	03/21/2022 08:30	Fe-Val Siddell	03/25/2022 17:49	Michael Poppell	2312275
	03/15/2022	03/21/2022 08:30	Fe-Val Siddell	03/25/2022 18:14	Michael Poppell	2312275
	03/15/2022	03/21/2022 08:30	Fe-Val Siddell	03/30/2022 22:48	Lipi Saha	2312275
EPA 8276	03/15/2022	03/20/2022 12:00	Rasheda Ghaffari	03/23/2022 12:04	Arthur Maknenko	2312274
EPA 8321B	03/15/2022	03/16/2022 08:00	June Rhew	03/18/2022 06:54	Juyoung Kim	2312271
	03/15/2022	03/16/2022 08:00	June Rhew	03/18/2022 07:29	Juyoung Kim	2312273
	03/15/2022	03/16/2022 11:00	Manjita Shrestha	03/16/2022 14:15	Manjita Shrestha	2312271
	03/15/2022	03/16/2022 11:00	Manjita Shrestha	03/16/2022 14:28	Manjita Shrestha	2312273
	03/15/2022	03/16/2022 11:00	Manjita Shrestha	03/16/2022 18:48	Manjita Shrestha	2312271
	03/15/2022	03/16/2022 11:00	Manjita Shrestha	03/16/2022 19:03	Manjita Shrestha	2312273
	03/15/2022	03/21/2022 08:30	June Rhew	03/25/2022 21:43	Juyoung Kim	2312272
SM 2320 B-2011	03/15/2022			03/16/2022 19:52	Dale L. Simmons	2312218
	03/15/2022			03/16/2022 20:07	Dale L. Simmons	2312220
SM 2340B	03/15/2022			03/17/2022 17:46	Josef B Mick	2312279
SM 2540 C-2011	03/15/2022			03/18/2022 15:46	Yijie Li	2312218, 2312220
SM 2540 D-2011	03/15/2022			03/18/2022 15:46	Yijie Li	2312218, 2312220
SM 4500 F-C-2011	03/15/2022			03/16/2022 19:52	Dale L. Simmons	2312218
	03/15/2022			03/16/2022 20:07	Dale L. Simmons	2312220
SM 5310 B-2011	03/15/2022			03/16/2022 17:54	Khloe J Berg	2312219

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 5310 B-2011	03/15/2022			03/16/2022 21:31	Khloe J Berg	2312221