

Chemical Analysis Report

SO-DIST-2022-03-31-01

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-2022-04-04-42**
Customer: **SO-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FLDEP South District Office
2295 Victoria Ave. Suite 364
Fort Myers, FL 33901-3381
Attn: William Mullen

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Kerry Tate, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Liang Lin, Environmental Administrator

Date Certified: 21-APR-2022 12:35

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: Drainage Ditch @ CR 850

Collection Date/Time: 03/30/2022 08:25

Field ID: G1SD0061

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2315656	EPA 8321B	2,4-D	0.0020	U	ug/L	P411856	
		Acesulfame K	0.10	U	ug/L	P411836	
		2,4,5-T	0.0040	U	ug/L	P411856	
		AMPA	0.10	I	ug/L	P411836	
		Acetaminophen	0.0080	U	ug/L	P411856	
		Acetamiprid	0.0020	U	ug/L	P411856	
		Endothall	0.25	U	ug/L	P411836	
		Glufosinate	0.10	U	ug/L	P411836	
		Glyphosate	0.23	I	ug/L	P411836	
		Afidopyropen	0.0020	U	ug/L	P411856	
		Bentazon	8.0E-04	U	ug/L	P411856	
		Sucralose	0.010	U	ug/L	P411836	
		Benzovindiflupyr	0.0020	U	ug/L	P411856	
		Carbamazepine	8.0E-04	U	ug/L	P411856	
		Clothianidin	0.0037	I	ug/L	P411856	
		Dinotefuran	0.0020	U	ug/L	P411856	
		Diuron	0.0020	U	ug/L	P411856	
		Fenuron	0.016	U	ug/L	P411856	
		Fluridone	8.0E-04	U	ug/L	P411856	
		Imazapyr	0.0040	U	ug/L	P411856	
		Hydrocodone	0.0020	U	ug/L	P411856	
		Ibuprofen	0.020	U	ug/L	P411856	
		Imidacloprid	0.0059	I	ug/L	P411856	
		Linuron	0.0040	U	ug/L	P411856	
		Mandestrobin	0.0020	U	ug/L	P411856	
		MCPP	0.0020	U	ug/L	P411856	
		Naproxen	0.0080	U	ug/L	P411856	
		Primidone	0.0040	U	ug/L	P411856	RPD
		Pyraclostrobin	0.0020	U	ug/L	P411856	
		Silvex	0.0040	U	ug/L	P411856	
		Thiamethoxam	0.0075	I	ug/L	P411856	
		Tolfenpyrad	0.0020	U	ug/L	P411856	
		Triclopyr	0.0040	U	ug/L	P411856	
2315661	EPA 200.7 Rev. 4.4	Calcium	82.4		mg/L	P411895	
		Iron	1.68E+03		ug/L	P411895	
		Magnesium	11.3		mg/L	P411895	
		Potassium	3.2		mg/L	P411895	
		Sodium	16.2		mg/L	P411895	
		Strontium	254		ug/L	P411895	
		Tin	3.0	U	ug/L	P411895	
		Titanium	1.2	I	ug/L	P411895	
		Vanadium	4.4	I	ug/L	P411895	
		Zinc	5.0	U	ug/L	P411895	
	EPA 200.8 Rev. 5.4	Aluminum	116		ug/L	P411895	

Field ID: G1SD0061

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2315661	EPA 200.8 Rev. 5.4	Antimony	0.064	I	ug/L	P411895	
		Arsenic	0.57		ug/L	P411895	
		Barium	13.5		ug/L	P411895	
		Beryllium	0.028	I	ug/L	P411895	
		Boron**	50.2		ug/L	P411895	
		Cadmium	0.020	U	ug/L	P411895	
		Chromium	0.56	I	ug/L	P411895	
		Cobalt	0.065	I	ug/L	P411895	
		Copper	0.64	I	ug/L	P411895	
		Lead	0.20	U	ug/L	P411895	
		Manganese	5.18		ug/L	P411895	
		Molybdenum	0.31	I	ug/L	P411895	
		Nickel	0.61	I	ug/L	P411895	
		Selenium	0.20	U	ug/L	P411895	
		Silver	0.010	U	ug/L	P411895	
		Thallium	0.10	U	ug/L	P411895	
	SM 2340 B-2011	Hardness	252		mg/L	P411895	

Sample Location: TownsendCanalatChurchRd

Collection Date/Time: 03/30/2022 08:50

Field ID: G3SD0221

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2315646	DEP SOP: NU-094-1	Color (true)**	68		PCU	P411826	
	EPA 180.1 Rev. 2.0	Turbidity	10		NTU	P411823	
	EPA 300.0 Rev. 2.1	Chloride	28		mg Cl/L	P412225	
		Sulfate	45		mg SO4/L	P412233	
	SM 2320 B-2011	Total Alkalinity	188		mg CaCO3/L	P412136	
	SM 2540 C-2011	TDS	361	A	mg/L	P412129	
	SM 2540 D-2011	TSS	15	A	mg/L	P412020	
	SM 4500-F- C-2011	Fluoride	0.18		mg F/L	P412139	
2315647	EPA 350.1 Rev. 2.0	Ammonia-N	0.047		mg N/L	P412080	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P412174	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.006	I	mg N/L	P411860	
	EPA 365.1 Rev. 2.0	Total-P	0.19		mg P/L	P411941	
	SM 5310 B-2011	Organic Carbon	15		mg C/L	P412046	
2315657	EPA 8321B	Aldicarb	0.020	U	ug/L	P411857	
		Aldicarb Sulfone	0.0020	U	ug/L	P411857	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P411857	
		Carbaryl	0.0020	U	ug/L	P411857	
		Carbofuran	0.0020	U	ug/L	P411857	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P411857	
		Methiocarb	0.0020	U	ug/L	P411857	
		Methomyl	0.0052	I	ug/L	P411857	
		Oxamyl	0.0020	U	ug/L	P411857	
		Propoxur	0.0020	U	ug/L	P411857	
		2,4-D	0.0020	U	ug/L	P411856	
		Acesulfame K	0.10	U	ug/L	P411836	
2315658		2,4,5-T	0.0040	U	ug/L	P411856	
		AMPA	1.9		ug/L	P411836	
		Acetaminophen	0.0080	U	ug/L	P411856	
		Acetamiprid	0.0020	U	ug/L	P411856	
		Endothall	0.25	U	ug/L	P411836	
		Glufosinate	0.10	U	ug/L	P411836	
		Glyphosate	3.2		ug/L	P411836	
		Afidopyropen	0.0020	U	ug/L	P411856	
		Bentazon	8.0E-04	U	ug/L	P411856	
		Sucralose	0.010	U	ug/L	P411836	
		Benzovindiflupyr	0.0020	U	ug/L	P411856	
		Carbamazepine	8.0E-04	U	ug/L	P411856	
		Clothianidin	0.023		ug/L	P411856	
		Dinotefuran	0.0036	I	ug/L	P411856	
		Diuron	0.019		ug/L	P411856	
		Fenuron	0.016	U	ug/L	P411856	
		Fluridone	8.0E-04	U	ug/L	P411856	
		Imazapyr	0.074		ug/L	P411856	
		Hydrocodone	0.0020	U	ug/L	P411856	

Field ID: G3SD0221

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2315658	EPA 8321B	Ibuprofen	0.020	U	ug/L	P411856	
		Imidacloprid	0.19		ug/L	P411856	
		Linuron	0.0040	U	ug/L	P411856	
		Mandestrobin	0.0020	U	ug/L	P411856	
		MCP	0.0020	U	ug/L	P411856	
		Naproxen	0.0080	U	ug/L	P411856	
		Primidone	0.0040	U	ug/L	P411856	RPD
		Pyraclostrobin	0.0020	U	ug/L	P411856	
		Silvex	0.0040	U	ug/L	P411856	
		Thiamethoxam	0.012		ug/L	P411856	
		Tolfenpyrad	0.0020	U	ug/L	P411856	
		Triclopyr	0.0040	U	ug/L	P411856	
2315659	EPA 8270E	Aldrin	0.67	U	ng/L	P411871	
		Alpha-BHC	0.10	U	ng/L	P411871	
		Alpha-Chlordane	0.21	U	ng/L	P411871	
		PCB-1016	2.1	U	ng/L	P411871	
		Beta-BHC	0.10	U	ng/L	P411871	
		PCB-1221	2.1	U	ng/L	P411871	
		Beta-Cyfluthrin**	1.3	U	ng/L	P411871	
		PCB-1232	2.1	U	ng/L	P411871	
		Bifenthrin**	0.52	U	ng/L	P411871	
		PCB-1242	2.1	U	ng/L	P411871	
		PCB-1248	2.1	U	ng/L	P411871	
		Chlorothalonil	1.3	U	ng/L	P411871	
		PCB-1254	2.1	U	ng/L	P411871	
		Cis-Nonachlor**	0.21	U	ng/L	P411871	
		PCB-1260	2.1	U	ng/L	P411871	MS
		Cypermethrin	1.6	U	ng/L	P411871	
		Dacthal**	0.16	U	ng/L	P411871	
		DDD-p,p'	0.26	U	ng/L	P411871	
		DDE-p,p'	0.21	U	ng/L	P411871	
		DDT-p,p'	0.26	U	ng/L	P411871	
		Delta-BHC	0.41	U	ng/L	P411871	
		Deltamethrin**	1.3	U	ng/L	P411871	
		Dichlobenil**	0.26	U	ng/L	P411871	
		Dicofol	1.3	U	ng/L	P411871	
		Dieldrin	0.41	U	ng/L	P411871	
		Endosulfan I	0.41	U	ng/L	P411871	
		Endosulfan II	0.41	U	ng/L	P411871	
		Endosulfan Sulfate	0.31	U	ng/L	P411871	
		Endrin	0.41	U	ng/L	P411871	
		Endrin Aldehyde	0.78	U	ng/L	P411871	
		Endrin Ketone	0.41	U	ng/L	P411871	
		Esfenvalerate**	0.78	U	ng/L	P411871	
		Ethalfuralin**	0.16	U	ng/L	P411871	

Field ID: G3SD0221

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes	
2315659	EPA 8270E	Fenpropathrin**	0.26	U	ng/L	P411871		
		Gamma-BHC	0.13	U	ng/L	P411871		
		Gamma-Chlordane	0.21	U	ng/L	P411871		
		Heptachlor	0.21	U	ng/L	P411871		
		Heptachlor Epoxide	0.26	U	ng/L	P411871		
		Hexachlorobenzene**	1.0	U	ng/L	P411871		
		Kepone**	5.2	U	ng/L	P411871		
		Lambda-Cyhalothrin**	0.78	U	ng/L	P411871		
		Methoprene**	0.78	U	ng/L	P411871		
		Methoxychlor	0.31	U	ng/L	P411871		
		MGK-264**	0.21	U	ng/L	P411871		
		Mirex	0.72	U	ng/L	P411871		
		Oxychlordane**	0.31	U	ng/L	P411871		
		Permethrin	1.7	U	ng/L	P411871		
		Phenothrin**	0.93	U	ng/L	P411871		
		Piperonyl Butoxide**	1.7		ng/L	P411871		
		Prallethrin**	2.1	U	ng/L	P411871		
		Tau-Fluvalinate**	0.26	U	ng/L	P411871		
		Tetramethrin**	0.78	U	ng/L	P411871		
		Trans-Nonachlor**	0.21	U	ng/L	P411871		
		Triclosan Methyl**	0.16	U	ng/L	P411871		
		Trifluralin	0.21	U	ng/L	P411871		
	EPA 8276	Chlordane	2.6	U	ng/L	P411871		
		Toxaphene	16	U	ng/L	P411871		
2315660	EPA 8270E	Oxybenzone**	9.7	U	ng/L	P411974	SUR	
		Acetochlor	0.24	U	ng/L	P411974		
		Octinoxate**	48	I QJ	ng/L	P412360		
		Alachlor	0.24	U	ng/L	P411974		
		Avobenzone**	97	U	ng/L	P411974		
		Ametryn	0.58	U	ng/L	P411974		
		Atrazine	7.3		ng/L	P411974		
		Atrazine Desethyl	1.5	U	ng/L	P411974		
		Azinphos Methyl	1.9	U	ng/L	P411974		
		Azoxystrobin**	0.76	I	ng/L	P411974		
		Bromacil	49		ng/L	P411974		
		Butylate	0.39	U	ng/L	P411974		
		Caffeine**	7.2	UQ	ng/L	P412360		
		Carbophenothion	0.19	U	ng/L	P411974		MS
		Carfentrazone Ethyl**	0.097	U	ng/L	P411974		
		Chlorfenapyr**	0.17	U	ng/L	P411974		
		Chlorpyrifos Ethyl	0.24	U	ng/L	P411974		
		Chlorpyrifos Methyl	0.048	U	ng/L	P411974		
		Coumaphos**	0.48	U	ng/L	P411974		
		Cyanazine	3.1	U	ng/L	P411974		
		Cyprodinil**	4.9		ng/L	P411974		

Field ID: G3SD0221

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2315660	EPA 8270E	Demeton	1.5	U	ng/L	P411974	
		Diazinon	0.22	I	ng/L	P411974	
		Difenoconazole**	1.4	I	ng/L	P411974	
		Dimethenamid**	0.097	U	ng/L	P411974	
		Dimethomorph**	0.17	U	ng/L	P411974	
		Disulfoton	0.48	U	ng/L	P411974	
		Dithiopyr**	0.17	U	ng/L	P411974	
		EPTC	1.2	U	ng/L	P411974	
		Ethion	0.15	U	ng/L	P411974	
		Ethoprop	0.097	U	ng/L	P411974	
		Etridiazole**	0.15	U	ng/L	P411974	
		Fenamiphos	0.48	U	ng/L	P411974	
		Fenbuconazole**	6.3		ng/L	P411974	
		Fipronil	0.24	U	ng/L	P411974	
		Fipronil Desulfinyl**	0.12	U	ng/L	P411974	
		Fipronil Sulfide	0.15	U	ng/L	P411974	
		Fipronil Sulfone	0.15	U	ng/L	P411974	
		Fluazifop-P-butyl**	0.097	U	ng/L	P411974	
		Fludioxonil**	0.20	I	ng/L	P411974	
		Flumioxazin**	1.7	U	ng/L	P411974	RPD
		Flutolanil**	0.10	I	ng/L	P411974	
		Fluxapyroxad**	32		ng/L	P411974	
		Fonofos	0.19	U	ng/L	P411974	
		Hexazinone	36		ng/L	P411974	
		Imazalil**	0.73	U	ng/L	P411974	
		Iprodione**	0.58	U	ng/L	P411974	
		Loratadine**	0.097	U	ng/L	P411974	
		Malathion	0.34	U	ng/L	P411974	
		Metalaxyl	35		ng/L	P411974	
		Metolachlor	0.34	U	ng/L	P411974	
		Metribuzin	2.4	U	ng/L	P411974	
		Mevinphos	1.0	U	ng/L	P411974	
		Molinate	0.29	U	ng/L	P411974	
		Myclobutanil**	0.24	U	ng/L	P411974	
		Naled**	1.5	U	ng/L	P411974	
		Napropamide**	0.39	U	ng/L	P411974	
		Norflurazon	400		ng/L	P411974	
		Oxadiazon	0.29	UQ	ng/L	P412360	
		Oxyfluorfen**	0.15	U	ng/L	P411974	
		Parathion Ethyl	0.24	U	ng/L	P411974	
		Parathion Methyl	0.53	U	ng/L	P411974	
		Pendimethalin	0.97	U	ng/L	P411974	
		Phenytol**	3.4	U	ng/L	P411974	
		Phorate	0.51	U	ng/L	P411974	
		Prodiamine**	6.5		ng/L	P411974	

Field ID: G3SD0221

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2315660	EPA 8270E	Prometon	0.87	U	ng/L	P411974	
		Prometryn	0.19	U	ng/L	P411974	
		Pronamide**	0.15	U	ng/L	P411974	
		Propanil**	0.12	U	ng/L	P411974	
		Propargite**	1.5	U	ng/L	P411974	
		Propiconazole**	0.48	U	ng/L	P411974	
		Pyraflufen Ethyl**	0.24	UJ	ng/L	P411974	LCS
		Pyridaben**	0.44	U	ng/L	P411974	
		Pyriproxyfen**	0.12	U	ng/L	P411974	
		Simazine	1.1	I	ng/L	P411974	
		Stiophos**	0.18	I	ng/L	P411974	
		Sulfentrazone**	0.54	I	ng/L	P411974	
		Tebuconazole**	0.48	U	ng/L	P411974	RPD
		Terbufos	0.097	U	ng/L	P411974	
		Terbutylazine	0.41	U	ng/L	P411974	
		Thiobencarb**	0.58	U	ng/L	P411974	
		Triadimefon**	0.24	U	ng/L	P411974	

Ref. Method and Comment:

SM 4500-F- C-2011: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes. Sample expired for preparation for octinoxate due to need for re-extraction. Insufficient sample available to perform duplicate matrix spikes in re-extraction.

EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes. Sample expired for preparation for caffeine and oxadiazon due to need for re-extraction. Insufficient sample available to perform duplicate matrix spikes in re-extraction.

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

Collection Date/Time: 03/30/2022 10:15

Field ID: G1SD0076

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2315648	DEP SOP: NU-094-1	Color (true)**	74	A	PCU	P411826	
	EPA 180.1 Rev. 2.0	Turbidity	5.0		NTU	P411823	
	EPA 300.0 Rev. 2.1	Chloride	44		mg Cl/L	P412225	
		Sulfate	8.6		mg SO4/L	P412233	
	SM 2320 B-2011	Total Alkalinity	233		mg CaCO3/L	P412136	
	SM 2540 C-2011	TDS	374		mg/L	P412129	
	SM 2540 D-2011	TSS	6	I	mg/L	P412020	
	SM 4500-F- C-2011	Fluoride	0.32		mg F/L	P412139	
2315649	EPA 350.1 Rev. 2.0	Ammonia-N	0.082		mg N/L	P412080	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.8		mg N/L	P412174	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.025		mg N/L	P411860	
	EPA 365.1 Rev. 2.0	Total-P	0.15		mg P/L	P411941	
	SM 5310 B-2011	Organic Carbon	19		mg C/L	P412046	

Ref. Method and Comment:

SM 4500-F- C-2011: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P411826

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P411823

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P411895

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: P411895

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: P412225

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: P412233

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P412080

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412174

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P411860

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P411941

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

Reference Method: EPA 8270E
Batch ID: P411871

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P411871

Component	Result	Code	Units
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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P411871

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

Reference Method: EPA 8270E

Batch ID: P411974

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
Avobenzone	100	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P411974

Component	Result	Code	Units
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
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
Fenbuconazole	0.12	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fipronil	0.25	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P411974

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P411974

Component	Result	Code	Units
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
Prodimamine	0.18	U	ng/L
Prodimamine	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
Triadimefon	0.25	U	ng/L
Triadimefon	0.25	U	ng/L

Reference Method: EPA 8270E

Batch ID: P412360

Component	Result	Code	Units
Caffeine	7.5	U	ng/L
Caffeine	7.5	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P412360

Component	Result	Code	Units
Octinoxate	20	U	ng/L
Octinoxate	20	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxadiazon	0.30	U	ng/L

Reference Method: EPA 8276
Batch ID: P411871

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: P411836

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: P411856

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	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B

Batch ID: P411856

Component	Result	Code	Units
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: P411857

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: P412136

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

Reference Method: SM 2540 C-2011

Batch ID: P412129

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011

Batch ID: P412020

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011

Batch ID: P412139

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011

Batch ID: P412046

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: P411826

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	101		P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P411823

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	96.2		P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P411895

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	101		P	85 - 115
Iron	104		P	85 - 115
Magnesium	107		P	85 - 115
Potassium	95.7		P	85 - 115
Sodium	96.5		P	85 - 115
Strontium	95.5		P	85 - 115
Tin	101		P	85 - 115
Titanium	97.4		P	85 - 115
Vanadium	92.5		P	85 - 115
Zinc	98.7		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P411895

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	99.1		P	80 - 120
Antimony	96.7		P	80 - 120
Arsenic	100		P	80 - 120
Barium	101		P	80 - 120
Beryllium	94.1		P	80 - 120
Boron	103		P	80 - 120
Cadmium	97.1		P	80 - 120
Chromium	95.3		P	80 - 120
Cobalt	100		P	80 - 120
Copper	97.7		P	80 - 120
Lead	98.4		P	80 - 120
Manganese	94.9		P	80 - 120
Molybdenum	98.4		P	80 - 120
Nickel	99.0		P	80 - 120
Selenium	98.8		P	80 - 120
Silver	101		P	80 - 120
Thallium	99.9		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P412225

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	98.3		P	90 - 110

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P412233

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	97.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P412080

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412174

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	97.8		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P411860

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	92.0		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P411941

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

Reference Method: EPA 8270E
Batch ID: P411871

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	64.5		P	10 - 93.0
Alpha-BHC	95.6		P	75 - 106
Alpha-Chlordane	89.8		P	50 - 109
Beta-BHC	124		P	65 - 135
Beta-Cyfluthrin	94.3		P	23 - 167
Bifenthrin	69.8		P	11 - 123
Chlorothalonil	86.4		P	26 - 182
Cis-Nonachlor	82.2		P	40 - 111
Cypermethrin	99.4		P	25 - 155
Dacthal	101		P	73 - 112
DDD-p,p'	73.8		P	47 - 108
DDE-p,p'	90.0		P	48 - 107
DDT-p,p'	88.2		P	49 - 111
Delta-BHC	124		P	68 - 143
Deltamethrin	110		P	16 - 176
Dichlobenil	93.4		P	32 - 113
Dicofol	82.8		P	50 - 108
Dieldrin	95.7		P	56 - 110
Endosulfan I	93.2		P	60 - 105
Endosulfan II	101		P	50 - 120
Endosulfan Sulfate	104		P	55 - 121
Endrin	95.3		P	31 - 119

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P411871

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Endrin Aldehyde	96.3		P	36 - 116
Endrin Ketone	110		P	56 - 130
Esfenvalerate	92.4		P	10 - 179
Ethalfuralin	86.1		P	49 - 99.0
Fenpropathrin	94.7		P	35 - 119
Gamma-BHC	109		P	72 - 115
Gamma-Chlordane	89.9		P	45 - 107
Heptachlor	85.1		P	41 - 100
Heptachlor Epoxide	97.4		P	58 - 106
Hexachlorobenzene	89.4		P	39 - 100
Kepone	113		P	10 - 191
Lambda-Cyhalothrin	83.8		P	10 - 186
Methoprene	67.8		P	10 - 129
Methoxychlor	107		P	61 - 111
MGK-264	88.7		P	20 - 123
Mirex	69.2		P	10 - 182
Oxychlordane	89.3		P	39 - 110
PCB-1016	75.8		P	49 - 111
PCB-1260	103		P	42 - 116
Permethrin	98.6		P	26 - 152
Phenothrin	72.8		P	10 - 109
Piperonyl Butoxide	112		P	27 - 142
Prallethrin	82.6		P	14 - 109
Tau-Fluvalinate	79.4		P	16 - 134
Tetramethrin	108		P	10 - 125
Trans-Nonachlor	91.4		P	45 - 107
Triclosan Methyl	94.3		P	60 - 110
Trifluralin	86.9		P	49 - 98.0

Reference Method: EPA 8270E

Batch ID: P411974

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	106		P	70 - 121
Alachlor	92.9		P	68 - 119
Ametryn	109		P	64 - 139
Atrazine	91.2		P	76 - 120
Atrazine Desethyl	66.0		P	44 - 126
Avobenzone	142		P	76 - 212
Azinphos Methyl	74.7		P	43 - 192
Azoxystrobin	86.8		P	36 - 224
Bromacil	111		P	52 - 121
Butylate	63.6		P	28 - 91.0
Carbophenothion	111		P	56 - 129
Carfentrazone Ethyl	126		P	60 - 141
Chlorfenapyr	83.6		P	56 - 115
Chlorpyrifos Ethyl	93.9		P	60 - 118
Chlorpyrifos Methyl	90.6		P	68 - 119
Coumaphos	178		P	18 - 250
Cyanazine	181		P	61 - 250
Cyprodinil	123		P	55 - 145
Demeton	72.7		P	30 - 159

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P411974

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Diazinon	104		P	70 - 123
Difenoconazole	85.7		P	49 - 204
Dimethenamid	85.7		P	64 - 115
Dimethomorph	97.2		P	12 - 219
Disulfoton	81.4		P	44 - 125
Dithiopyr	98.2		P	64 - 115
EPTC	59.6		P	28 - 86.0
Ethion	81.5		P	33 - 125
Ethoprop	91.2		P	64 - 116
Etridiazole	75.4		P	34 - 91.0
Fenamiphos	106		P	12 - 127
Fenbuconazole	149		P	59 - 151
Fipronil	107		P	67 - 129
Fipronil Desulfinyl	103		P	65 - 127
Fipronil Sulfide	87.1		P	61 - 116
Fipronil Sulfone	105		P	55 - 117
Fluazifop-P-butyl	93.5		P	62 - 127
Fludioxonil	116		P	62 - 128
Flumioxazin	135		P	33 - 250
Flutolanil	94.3		P	56 - 127
Fluxapyroxad	75.0		P	45 - 128
Fonofos	84.3		P	62 - 111
Hexazinone	94.8		P	46 - 139
Imazalil	65.6		P	38 - 142
Iprodione	88.9		P	47 - 135
Loratadine	62.6		P	10 - 244
Malathion	108		P	61 - 139
Metalaxyl	89.2		P	10 - 119
Metolachlor	100		P	65 - 118
Metribuzin	85.0		P	51 - 250
Mevinphos	81.1		P	53 - 121
Molinate	72.2		P	42 - 96.0
Myclobutanil	110		P	55 - 128
Naled	86.8		P	10 - 98.0
Napropamide	87.4		P	49 - 121
Norflurazon	61.4		P	61 - 126
Oxybenzone	88.8		P	61 - 139
Oxyfluorfen	113		P	64 - 137
Parathion Ethyl	92.6		P	70 - 112
Parathion Methyl	101		P	76 - 133
Pendimethalin	80.2		P	52 - 117
Phenytoin	133		P	10 - 199
Phorate	91.1		P	48 - 121
Prodiamine	130		P	26 - 142
Prometon	120		P	43 - 123
Prometryn	113		P	66 - 127
Pronamide	101		P	75 - 121
Propanil	92.8		P	45 - 150
Propargite	159		P	42 - 208
Propiconazole	67.8		P	60 - 125
Pyraflufen Ethyl	141		F	70 - 138
Pyridaben	205		P	35 - 245

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P411974

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Pyriproxyfen	90.6		P	30 - 149
Simazine	93.9		P	72 - 125
Stirophos	89.6		P	29 - 164
Sulfentrazone	98.7		P	21 - 139
Tebuconazole	45.9		P	10 - 115
Terbufos	108		P	60 - 123
Terbuthylazine	89.4		P	72 - 115
Thiobencarb	95.5		P	31 - 139
Triadimefon	87.7		P	65 - 116

Reference Method: EPA 8270E
Batch ID: P412360

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Caffeine	81.0	76.9	P/P	50 - 134
Octinoxate	124	101	P/P	30 - 159
Oxadiazon	63.5	64.3	P/P	59 - 116

Reference Method: EPA 8276
Batch ID: P411871

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	87.5		P	61 - 118
Toxaphene	74.4		P	51 - 122

Reference Method: EPA 8321B
Batch ID: P411836

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	79.5		P	40 - 150
AMPA	122		P	40 - 150
Endothall	65.7		P	40 - 150
Glufosinate	108		P	40 - 150
Glyphosate	120		P	40 - 150
Sucralose	88.3		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P411856

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	65.5		P	30 - 160
2,4,5-T	56.7		P	30 - 160
Acetaminophen	57.6		P	30 - 150
Acetamiprid	85.4		P	30 - 160
Afidopyropen	50.0		P	30 - 160
Bentazon	132		P	30 - 150
Benzovindiflupyr	83.3		P	30 - 160
Carbamazepine	77.8		P	30 - 160
Clothianidin	96.5		P	30 - 160
Dinotefuran	85.7		P	30 - 160
Diuron	75.6		P	30 - 160
Fenuron	117		P	30 - 160

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P411856

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluridone	77.6		P	30 - 160
Hydrocodone	89.3		P	30 - 160
Ibuprofen	80.7		P	30 - 160
Imazapyr	92.7		P	30 - 160
Imidacloprid	97.4		P	30 - 160
Linuron	63.1		P	30 - 160
Mandestrobin	82.6		P	30 - 160
MCPP	74.2		P	30 - 160
Naproxen	52.2		P	30 - 160
Primidone	101		P	30 - 160
Pyraclostrobin	73.1		P	30 - 160
Silvex	52.8		P	30 - 160
Thiamethoxam	85.0		P	30 - 160
Tolfenpyrad	49.2		P	30 - 160
Triclopyr	57.9		P	30 - 160

Reference Method: EPA 8321B

Batch ID: P411857

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	83.2		P	40 - 150
Aldicarb	57.4		P	30 - 150
Aldicarb Sulfone	93.6		P	40 - 150
Aldicarb Sulfoxide	90.4		P	40 - 150
Carbaryl	83.4		P	40 - 150
Carbofuran	98.0		P	40 - 150
Methiocarb	77.4		P	40 - 150
Methomyl	89.4		P	40 - 150
Oxamyl	92.4		P	40 - 150
Propoxur	82.4		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P412136

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.9		P	94 - 106

Reference Method: SM 4500-F- C-2011

Batch ID: P412139

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.8		P	93 - 104

Reference Method: SM 5310 B-2011

Batch ID: P412046

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.4		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P411895

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315224	Calcium	101		P	80 - 120
2315224	Iron	102		P	80 - 120
2315224	Magnesium	104		P	80 - 120
2315224	Potassium	95.5		P	80 - 120
2315224	Sodium	99.8		P	80 - 120
2315224	Strontium	94.9		P	80 - 120
2315224	Tin	99.4		P	80 - 120
2315224	Titanium	103		P	80 - 120
2315224	Vanadium	98.7		P	80 - 120
2315224	Zinc	100		P	80 - 120
2315487	Calcium	100		P	80 - 120
2315487	Iron	101	103	P/P	80 - 120
2315487	Magnesium	102	105	P/P	80 - 120
2315487	Potassium	93.6	94.9	P/P	80 - 120
2315487	Sodium	94.8		P	80 - 120
2315487	Strontium	98.0	103	P/P	80 - 120
2315487	Tin	103	105	P/P	80 - 120
2315487	Titanium	102	105	P/P	80 - 120
2315487	Vanadium	99.1	102	P/P	80 - 120
2315487	Zinc	105	107	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P411895

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315224	Aluminum	109		P	80 - 120
2315224	Antimony	97.9		P	80 - 120
2315224	Arsenic	99.5		P	80 - 120
2315224	Barium	99.5		P	80 - 120
2315224	Beryllium	94.9		P	80 - 120
2315224	Boron	102		P	80 - 120
2315224	Cadmium	97.9		P	80 - 120
2315224	Chromium	96.7		P	80 - 120
2315224	Cobalt	98.9		P	80 - 120
2315224	Copper	94.8		P	80 - 120
2315224	Lead	96.8		P	80 - 120
2315224	Manganese	95.7		P	80 - 120
2315224	Molybdenum	99.9		P	80 - 120
2315224	Nickel	97.5		P	80 - 120
2315224	Selenium	97.6		P	80 - 120
2315224	Silver	101		P	80 - 120
2315224	Thallium	100		P	80 - 120
2315487	Aluminum	98.7	96.4	P/P	80 - 120
2315487	Antimony	97.9	96.8	P/P	80 - 120
2315487	Arsenic	99.3	98.6	P/P	80 - 120
2315487	Barium	99.4	98.2	P/P	80 - 120
2315487	Beryllium	95.9	94.4	P/P	80 - 120
2315487	Boron	105	105	P/P	80 - 120
2315487	Cadmium	97.0	96.5	P/P	80 - 120
2315487	Chromium	98.4	97.3	P/P	80 - 120
2315487	Cobalt	98.4	96.6	P/P	80 - 120
2315487	Copper	96.4	95.1	P/P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P411895

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315487	Lead	98.7	97.4	P/P	80 - 120
2315487	Manganese	96.0	94.3	P/P	80 - 120
2315487	Molybdenum	101	99.3	P/P	80 - 120
2315487	Nickel	97.9	96.3	P/P	80 - 120
2315487	Selenium	98.1	96.1	P/P	80 - 120
2315487	Silver	100	98.9	P/P	80 - 120
2315487	Thallium	101	101	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P412225

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315665	Chloride	96.4		P	90 - 110
2315675	Chloride	96.9		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P412233

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315665	Sulfate	95.5		P	90 - 110
2315675	Sulfate	97.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P412080

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2316207	Ammonia-N	94.4	98.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412174

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315187	Kjeldahl Nitrogen	92.7	92.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P411860

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315540	NO2NO3-N	98.5	98.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P411941

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315647	Total-P	104	101	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P411871

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315390	PCB-1016	88.3	80.6	P/P	46 - 110
2315390	PCB-1260	116	108	F/P	42 - 111

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P411871

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315862	Aldrin	62.4	63.8	P/P	10 - 89.0
2315862	Alpha-BHC	90.5	89.2	P/P	71 - 105
2315862	Alpha-Chlordane	86.2	87.4	P/P	43 - 107
2315862	Beta-BHC	127	125	P/P	57 - 152
2315862	Beta-Cyfluthrin	110	108	P/P	29 - 186
2315862	Bifenthrin	85.2	84.2	P/P	19 - 119
2315862	Chlorothalonil	197	174	P/P	10 - 245
2315862	Cis-Nonachlor	68.6	69.2	P/P	36 - 110
2315862	Cypermethrin	112	108	P/P	24 - 169
2315862	Dacthal	93.0	94.2	P/P	62 - 115
2315862	DDD-p,p'	60.2	62.1	P/P	36 - 109
2315862	DDE-p,p'	80.3	79.8	P/P	30 - 114
2315862	DDT-p,p'	82.7	82.2	P/P	42 - 108
2315862	Delta-BHC	140	131	P/P	60 - 164
2315862	Deltamethrin	142	137	P/P	10 - 210
2315862	Dichlobenil	96.1	94.6	P/P	23 - 108
2315862	Dicofol	80.0	79.4	P/P	44 - 109
2315862	Dieldrin	84.0	84.9	P/P	37 - 119
2315862	Endosulfan I	85.5	85.2	P/P	52 - 105
2315862	Endosulfan II	83.4	84.9	P/P	35 - 127
2315862	Endosulfan Sulfate	104	94.4	P/P	39 - 130
2315862	Endrin	80.0	83.8	P/P	30 - 116
2315862	Endrin Aldehyde	47.4	66.5	P/P	20 - 110
2315862	Endrin Ketone	120	117	P/P	48 - 134
2315862	Esfenvalerate	127	119	P/P	10 - 199
2315862	Ethalfuralin	79.9	80.2	P/P	48 - 95.0
2315862	Fenpropathrin	102	101	P/P	37 - 121
2315862	Gamma-BHC	98.3	96.6	P/P	61 - 126
2315862	Gamma-Chlordane	85.2	85.2	P/P	39 - 105
2315862	Heptachlor	78.9	77.9	P/P	38 - 96.0
2315862	Heptachlor Epoxide	89.4	89.0	P/P	42 - 114
2315862	Hexachlorobenzene	82.5	81.1	P/P	39 - 93.0
2315862	Kepone	181	126	P/P	10 - 215
2315862	Lambda-Cyhalothrin	107	108	P/P	10 - 204
2315862	Methoprene	74.4	70.4	P/P	17 - 108
2315862	Methoxychlor	113	111	P/P	56 - 115
2315862	MGK-264	86.4	84.3	P/P	35 - 120
2315862	Mirex	70.0	70.0	P/P	10 - 178
2315862	Oxychlordane	89.1	84.0	P/P	47 - 91.0
2315862	Permethrin	113	108	P/P	27 - 170
2315862	Phenothrin	91.1	91.9	P/P	10 - 133
2315862	Piperonyl Butoxide	97.7	99.4	P/P	23 - 150
2315862	Prallethrin	78.6	72.9	P/P	21 - 113
2315862	Tau-Fluvalinate	110	106	P/P	16 - 158
2315862	Tetramethrin	121	120	P/P	22 - 132
2315862	Trans-Nonachlor	81.2	88.8	P/P	43 - 102
2315862	Triclosan Methyl	81.9	81.0	P/P	49 - 109
2315862	Trifluralin	82.0	80.5	P/P	48 - 93.0

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P411974

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315461	Acetochlor	106	109	P/P	65 - 124
2315461	Alachlor	94.9	94.6	P/P	61 - 121
2315461	Ametryn	125	110	P/P	52 - 216
2315461	Atrazine	105	105	P/P	68 - 133
2315461	Atrazine Desethyl	68.2	73.3	P/P	15 - 160
2315461	Avobenzone	95.4	87.6	P/P	59 - 206
2315461	Azinphos Methyl	86.5	85.4	P/P	40 - 292
2315461	Azoxystrobin	117	121	P/P	12 - 242
2315461	Bromacil	123	112	P/P	54 - 167
2315461	Butylate	39.9	34.7	P/P	14 - 94.0
2315461	Carbophenothion	127	109	F/P	49 - 122
2315461	Carfentrazone Ethyl	131	132	P/P	53 - 138
2315461	Chlorfenapyr	87.1	84.0	P/P	50 - 150
2315461	Chlorpyrifos Ethyl	103	94.2	P/P	52 - 122
2315461	Chlorpyrifos Methyl	97.1	91.4	P/P	66 - 117
2315461	Coumaphos	201	184	P/P	50 - 220
2315461	Cyanazine	176	146	P/P	43 - 245
2315461	Cyprodinil	132	131	P/P	50 - 150
2315461	Demeton	89.2	79.9	P/P	43 - 188
2315461	Diazinon	108	106	P/P	69 - 131
2315461	Difenoconazole	100	109	P/P	34 - 231
2315461	Dimethenamid	85.5	85.3	P/P	55 - 118
2315461	Dimethomorph	112	115	P/P	50 - 150
2315461	Disulfoton	94.5	87.2	P/P	38 - 141
2315461	Dithiopyr	98.3	105	P/P	42 - 116
2315461	EPTC	36.4	32.4	P/P	18 - 85.0
2315461	Ethion	95.4	88.8	P/P	10 - 131
2315461	Ethoprop	96.1	93.0	P/P	65 - 129
2315461	Etridiazole	59.3	51.8	P/P	50 - 150
2315461	Fenamiphos	125	113	P/P	31 - 137
2315461	Fenbuconazole	142	156	P/P	57 - 160
2315461	Fipronil	116	116	P/P	62 - 132
2315461	Fipronil Desulfinyl	98.7	96.3	P/P	57 - 131
2315461	Fipronil Sulfide	99.4	89.2	P/P	15 - 138
2315461	Fipronil Sulfone	121	110	P/P	21 - 134
2315461	Fluazifop-P-butyl	98.3	93.4	P/P	54 - 133
2315461	Fludioxonil	121	117	P/P	58 - 127
2315461	Flumioxazin	195	117	P/P	33 - 300
2315461	Flutolanil	102	95.8	P/P	42 - 130
2315461	Fluxapyroxad	59.7	73.8	P/P	23 - 141
2315461	Fonofos	97.4	92.5	P/P	58 - 119
2315461	Hexazinone	104	104	P/P	68 - 172
2315461	Imazalil	79.3	79.9	P/P	48 - 283
2315461	Iprodione	82.3	96.3	P/P	38 - 140
2315461	Loratadine	79.0	91.4	P/P	50 - 150
2315461	Malathion	118	111	P/P	40 - 137
2315461	Metalaxyl	88.8	93.2	P/P	21 - 129
2315461	Metolachlor	104	109	P/P	55 - 122
2315461	Metribuzin	101	82.5	P/P	38 - 187
2315461	Mevinphos	81.9	81.4	P/P	54 - 134
2315461	Molinate	58.7	56.4	P/P	41 - 97.0
2315461	Myclobutanil	115	118	P/P	56 - 125

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P411974

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315461	Naled	89.0	75.8	P/P	10 - 108
2315461	Napropamide	91.5	88.3	P/P	50 - 150
2315461	Norflurazon	77.9	82.5	P/P	32 - 122
2315461	Oxybenzone	101	91.5	P/P	59 - 147
2315461	Oxyfluorfen	124	119	P/P	61 - 153
2315461	Parathion Ethyl	96.8	104	P/P	59 - 130
2315461	Parathion Methyl	107	113	P/P	65 - 155
2315461	Pendimethalin	99.0	102	P/P	49 - 138
2315461	Phenytoin	136	145	P/P	50 - 200
2315461	Phorate	101	91.3	P/P	54 - 161
2315461	Prodiamine	74.6	63.9	P/P	33 - 161
2315461	Prometon	136	125	P/P	48 - 140
2315461	Prometryn	126	118	P/P	55 - 134
2315461	Pronamide	118	112	P/P	66 - 137
2315461	Propanil	90.3	92.1	P/P	50 - 150
2315461	Propargite	166	156	P/P	50 - 200
2315461	Propiconazole	139	140	P/P	36 - 150
2315461	Pyraflufen Ethyl	148	125	P/P	50 - 150
2315461	Pyridaben	101	103	P/P	50 - 200
2315461	Pyriproxyfen	90.1	104	P/P	10 - 165
2315461	Simazine	101	100	P/P	57 - 145
2315461	Stirophos	97.3	82.9	P/P	50 - 150
2315461	Sulfentrazone	75.2	83.6	P/P	34 - 140
2315461	Tebuconazole	44.8	82.7	P/P	10 - 127
2315461	Terbufos	120	112	P/P	59 - 138
2315461	Terbutylazine	99.3	97.2	P/P	68 - 119
2315461	Thiobencarb	97.4	99.7	P/P	50 - 150
2315461	Triadimefon	93.9	94.7	P/P	50 - 150

Reference Method: EPA 8270E

Batch ID: P412360

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315732	Caffeine	94.9		P	10 - 226
2315732	Octinoxate	64.7		P	25 - 150
2315732	Oxadiazon	57.0		P	40 - 119

Reference Method: EPA 8276

Batch ID: P411871

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315390	Chlordane	88.5	88.6	P/P	55 - 128
2315390	Toxaphene	77.3	79.8	P/P	57 - 211

Reference Method: EPA 8321B

Batch ID: P411836

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315345	Acesulfame K	125	120	P/P	40 - 150
2315345	AMPA	86.9	109	P/P	40 - 150
2315345	Endothall	87.6	86.5	P/P	40 - 150
2315345	Glufosinate	98.7	112	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P411836

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315345	Glyphosate	77.4	86.5	P/P	40 - 150
2315345	Sucralose	96.1	90.9	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P411856

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315310	2,4-D	71.1	73.6	P/P	30 - 160
2315310	2,4,5-T	60.7	56.7	P/P	30 - 160
2315310	Acetaminophen	96.2	92.4	P/P	30 - 150
2315310	Acetamiprid	87.8	103	P/P	30 - 160
2315310	Afidopyropen	61.1	69.5	P/P	30 - 160
2315310	Bentazon	108	124	P/P	30 - 150
2315310	Benzovindiflupyr	81.0	86.5	P/P	30 - 160
2315310	Carbamazepine	92.8	92.6	P/P	30 - 160
2315310	Clothianidin	106	111	P/P	30 - 160
2315310	Dinotefuran	109	115	P/P	30 - 160
2315310	Diuron	69.9	82.1	P/P	30 - 160
2315310	Fenuron	117	126	P/P	30 - 160
2315310	Fluridone	74.7	80.3	P/P	30 - 160
2315310	Hydrocodone	95.7	113	P/P	30 - 160
2315310	Ibuprofen	48.2	48.1	P/P	30 - 160
2315310	Imazapyr	82.7	105	P/P	30 - 160
2315310	Imidacloprid	101	123	P/P	30 - 160
2315310	Linuron	75.8	81.4	P/P	30 - 160
2315310	Mandestrobin	82.5	90.0	P/P	30 - 160
2315310	MCPP	79.6	80.9	P/P	30 - 160
2315310	Naproxen	66.2	63.1	P/P	30 - 160
2315310	Primidone	66.6	123	P/P	30 - 160
2315310	Pyraclostrobin	72.4	77.3	P/P	30 - 160
2315310	Silvex	58.0	61.7	P/P	30 - 160
2315310	Thiamethoxam	100	124	P/P	30 - 160
2315310	Tolfenpyrad	46.2	38.0	P/P	30 - 160
2315310	Triclopyr	66.6	71.9	P/P	30 - 160

Reference Method: EPA 8321B

Batch ID: P411857

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315482	3-Hydroxycarbofuran	105	107	P/P	40 - 150
2315482	Aldicarb	86.0	73.0	P/P	30 - 150
2315482	Aldicarb Sulfone	122	108	P/P	40 - 150
2315482	Aldicarb Sulfoxide	52.1	48.2	P/P	40 - 150
2315482	Carbaryl	70.9	69.8	P/P	40 - 150
2315482	Carbofuran	94.6	83.6	P/P	40 - 150
2315482	Methiocarb	67.5	71.9	P/P	40 - 150
2315482	Methomyl	94.9	90.1	P/P	40 - 150
2315482	Oxamyl	102	97.2	P/P	40 - 150
2315482	Propoxur	88.2	87.2	P/P	40 - 150

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P412046

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315649	Organic Carbon	95.5	96.4	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P411826

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315648	Color (true)	0.00541	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P411823

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315570	Turbidity	0.943	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P411895

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315487	Calcium	0.836	Spike	P	0 - 20
2315487	Iron	1.21	Spike	P	0 - 20
2315487	Magnesium	1.55	Spike	P	0 - 20
2315487	Potassium	1.16	Spike	P	0 - 20
2315487	Sodium	0.893	Spike	P	0 - 20
2315487	Strontium	4.58	Spike	P	0 - 20
2315487	Tin	2.06	Spike	P	0 - 20
2315487	Titanium	2.37	Spike	P	0 - 20
2315487	Vanadium	2.48	Spike	P	0 - 20
2315487	Zinc	2.70	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P411895

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315487	Aluminum	1.99	Spike	P	0 - 20
2315487	Antimony	1.13	Spike	P	0 - 20
2315487	Arsenic	0.695	Spike	P	0 - 20
2315487	Barium	1.09	Spike	P	0 - 20
2315487	Beryllium	1.63	Spike	P	0 - 20
2315487	Boron	0.432	Spike	P	0 - 20
2315487	Cadmium	0.488	Spike	P	0 - 20
2315487	Chromium	1.06	Spike	P	0 - 20
2315487	Cobalt	1.78	Spike	P	0 - 20
2315487	Copper	1.33	Spike	P	0 - 20
2315487	Lead	1.25	Spike	P	0 - 20
2315487	Manganese	1.51	Spike	P	0 - 20
2315487	Molybdenum	1.49	Spike	P	0 - 20
2315487	Nickel	1.61	Spike	P	0 - 20
2315487	Selenium	2.06	Spike	P	0 - 20
2315487	Silver	1.24	Spike	P	0 - 20
2315487	Thallium	0.0325	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P412225

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315665	Chloride	2.18	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P412233

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315665	Sulfate	0.151	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P412080

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2316207	Ammonia-N	2.63	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412174

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315187	Kjeldahl Nitrogen	0.667	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P411860

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315540	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P411941

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315647	Total-P	1.77	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P411871

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315390	PCB-1016	9.13	Spike	P	0 - 32
2315390	PCB-1260	7.19	Spike	P	0 - 31
2315862	Aldrin	2.23	Spike	P	0 - 37
2315862	Alpha-BHC	1.40	Spike	P	0 - 16
2315862	Alpha-Chlordane	1.37	Spike	P	0 - 28
2315862	Beta-BHC	1.51	Spike	P	0 - 32
2315862	Beta-Cyfluthrin	2.14	Spike	P	0 - 41
2315862	Bifenthrin	1.23	Spike	P	0 - 36
2315862	Chlorothalonil	12.2	Spike	P	0 - 54

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P411871

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315862	Cis-Nonachlor	0.907	Spike	P	0 - 33
2315862	Cypermethrin	3.06	Spike	P	0 - 38
2315862	Dacthal	1.29	Spike	P	0 - 23
2315862	DDD-p,p'	3.09	Spike	P	0 - 35
2315862	DDE-p,p'	0.605	Spike	P	0 - 27
2315862	DDT-p,p'	0.607	Spike	P	0 - 31
2315862	Delta-BHC	6.23	Spike	P	0 - 30
2315862	Deltamethrin	3.85	Spike	P	0 - 76
2315862	Dichlobenil	1.52	Spike	P	0 - 33
2315862	Dicofol	0.693	Spike	P	0 - 24
2315862	Dieldrin	1.14	Spike	P	0 - 35
2315862	Endosulfan I	0.413	Spike	P	0 - 25
2315862	Endosulfan II	1.76	Spike	P	0 - 31
2315862	Endosulfan Sulfate	10.1	Spike	P	0 - 38
2315862	Endrin	4.60	Spike	P	0 - 53
2315862	Endrin Aldehyde	33.7	Spike	P	0 - 81
2315862	Endrin Ketone	2.73	Spike	P	0 - 33
2315862	Esfenvalerate	6.85	Spike	P	0 - 46
2315862	Ethalfuralin	0.349	Spike	P	0 - 22
2315862	Fenpropathrin	0.987	Spike	P	0 - 29
2315862	Gamma-BHC	1.70	Spike	P	0 - 17
2315862	Gamma-Chlordane	0.0605	Spike	P	0 - 28
2315862	Heptachlor	1.23	Spike	P	0 - 28
2315862	Heptachlor Epoxide	0.459	Spike	P	0 - 23
2315862	Hexachlorobenzene	1.64	Spike	P	0 - 22
2315862	Kepone	35.7	Spike	P	0 - 61
2315862	Lambda-Cyhalothrin	1.49	Spike	P	0 - 52
2315862	Methoprene	5.47	Spike	P	0 - 38
2315862	Methoxychlor	2.58	Spike	P	0 - 29
2315862	MGK-264	2.45	Spike	P	0 - 41
2315862	Mirex	0.0112	Spike	P	0 - 39
2315862	Oxychlordane	5.88	Spike	P	0 - 33
2315862	Permethrin	3.83	Spike	P	0 - 39
2315862	Phenothrin	0.854	Spike	P	0 - 52
2315862	Piperonyl Butoxide	1.68	Spike	P	0 - 91
2315862	Prallethrin	7.43	Spike	P	0 - 34
2315862	Tau-Fluvalinate	3.90	Spike	P	0 - 41
2315862	Tetramethrin	0.903	Spike	P	0 - 43
2315862	Trans-Nonachlor	9.01	Spike	P	0 - 31
2315862	Triclosan Methyl	1.10	Spike	P	0 - 24
2315862	Trifluralin	1.79	Spike	P	0 - 23

Reference Method: EPA 8270E
Batch ID: P411974

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315461	Acetochlor	2.45	Spike	P	0 - 27
2315461	Alachlor	0.313	Spike	P	0 - 27
2315461	Ametryn	12.5	Spike	P	0 - 34
2315461	Atrazine	0.134	Spike	P	0 - 41

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P411974

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315461	Atrazine Desethyl	7.12	Spike	P	0 - 38
2315461	Avobenzone	6.28	Spike	P	0 - 30
2315461	Azinphos Methyl	1.28	Spike	P	0 - 62
2315461	Azoxystrobin	3.21	Spike	P	0 - 32
2315461	Bromacil	9.26	Spike	P	0 - 30
2315461	Butylate	14.1	Spike	P	0 - 59
2315461	Carbophenothion	14.7	Spike	P	0 - 25
2315461	Carfentrazone Ethyl	0.804	Spike	P	0 - 26
2315461	Chlorfenapyr	3.63	Spike	P	0 - 30
2315461	Chlorpyrifos Ethyl	8.71	Spike	P	0 - 27
2315461	Chlorpyrifos Methyl	6.02	Spike	P	0 - 26
2315461	Coumaphos	9.08	Spike	P	0 - 30
2315461	Cyanazine	19.0	Spike	P	0 - 58
2315461	Cyprodinil	0.476	Spike	P	0 - 30
2315461	Demeton	11.1	Spike	P	0 - 25
2315461	Diazinon	1.44	Spike	P	0 - 29
2315461	Difenoconazole	8.49	Spike	P	0 - 25
2315461	Dimethenamid	0.246	Spike	P	0 - 30
2315461	Dimethomorph	2.29	Spike	P	0 - 30
2315461	Disulfoton	8.02	Spike	P	0 - 33
2315461	Dithiopyr	6.39	Spike	P	0 - 22
2315461	EPTC	11.5	Spike	P	0 - 38
2315461	Ethion	7.12	Spike	P	0 - 79
2315461	Ethoprop	3.26	Spike	P	0 - 23
2315461	Etridiazole	13.5	Spike	P	0 - 30
2315461	Fenamiphos	9.50	Spike	P	0 - 58
2315461	Fenbuconazole	9.17	Spike	P	0 - 37
2315461	Fipronil	0.000537	Spike	P	0 - 33
2315461	Fipronil Desulfinyl	2.41	Spike	P	0 - 26
2315461	Fipronil Sulfide	10.8	Spike	P	0 - 37
2315461	Fipronil Sulfone	9.42	Spike	P	0 - 50
2315461	Fluazifop-P-butyl	5.17	Spike	P	0 - 24
2315461	Fludioxonil	3.80	Spike	P	0 - 26
2315461	Flumioxazin	50.5	Spike	F	0 - 37
2315461	Flutolanil	6.01	Spike	P	0 - 26
2315461	Fluxapyroxad	19.6	Spike	P	0 - 34
2315461	Fonofos	5.22	Spike	P	0 - 27
2315461	Hexazinone	0.481	Spike	P	0 - 36
2315461	Imazalil	0.740	Spike	P	0 - 65
2315461	Iprodione	15.7	Spike	P	0 - 33
2315461	Loratadine	14.6	Spike	P	0 - 30
2315461	Malathion	6.17	Spike	P	0 - 44
2315461	Metalaxyl	4.86	Spike	P	0 - 38
2315461	Metolachlor	3.53	Spike	P	0 - 36
2315461	Metribuzin	20.4	Spike	P	0 - 63
2315461	Mevinphos	0.592	Spike	P	0 - 26
2315461	Molinate	4.11	Spike	P	0 - 40
2315461	Myclobutanil	2.19	Spike	P	0 - 21
2315461	Naled	16.1	Spike	P	0 - 26
2315461	Napropamide	3.59	Spike	P	0 - 30
2315461	Norflurazon	5.81	Spike	P	0 - 24

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P411974

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315461	Oxybenzone	9.44	Spike	P	0 - 30
2315461	Oxyfluorfen	4.29	Spike	P	0 - 24
2315461	Parathion Ethyl	6.96	Spike	P	0 - 28
2315461	Parathion Methyl	5.23	Spike	P	0 - 27
2315461	Pendimethalin	3.15	Spike	P	0 - 31
2315461	Phenytoin	6.19	Spike	P	0 - 30
2315461	Phorate	10.5	Spike	P	0 - 27
2315461	Prodiamine	15.5	Spike	P	0 - 52
2315461	Prometon	8.76	Spike	P	0 - 31
2315461	Prometryn	5.92	Spike	P	0 - 28
2315461	Pronamide	5.16	Spike	P	0 - 26
2315461	Propanil	2.02	Spike	P	0 - 30
2315461	Propargite	6.14	Spike	P	0 - 30
2315461	Propiconazole	0.602	Spike	P	0 - 31
2315461	Pyraflufen Ethyl	16.9	Spike	P	0 - 30
2315461	Pyridaben	2.38	Spike	P	0 - 30
2315461	Pyriproxyfen	14.8	Spike	P	0 - 50
2315461	Simazine	0.252	Spike	P	0 - 29
2315461	Stirophos	14.9	Spike	P	0 - 30
2315461	Sulfentrazone	10.6	Spike	P	0 - 33
2315461	Tebuconazole	59.4	Spike	F	0 - 44
2315461	Terbufos	6.61	Spike	P	0 - 29
2315461	Terbuthylazine	2.06	Spike	P	0 - 27
2315461	Thiobencarb	2.31	Spike	P	0 - 30
2315461	Triadimefon	0.863	Spike	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P412360

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Caffeine	5.23	LCS	P	0 - 27
LFB	Octinoxate	21.2	LCS	P	0 - 30
LFB	Oxadiazon	1.27	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P411871

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315390	Chlordane	0.0836	Spike	P	0 - 25
2315390	Toxaphene	3.18	Spike	P	0 - 24

Reference Method: EPA 8321B
Batch ID: P411836

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315345	Acesulfame K	4.09	Spike	P	0 - 30
2315345	AMPA	22.9	Spike	P	0 - 30
2315345	Endothall	1.27	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B

Batch ID: P411836

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315345	Glufosinate	12.6	Spike	P	0 - 30
2315345	Glyphosate	11.1	Spike	P	0 - 30
2315345	Sucralose	5.56	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P411856

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315310	2,4-D	3.28	Spike	P	0 - 30
2315310	2,4,5-T	6.77	Spike	P	0 - 30
2315310	Acetaminophen	3.96	Spike	P	0 - 30
2315310	Acetamiprid	15.6	Spike	P	0 - 30
2315310	Afidopyropen	12.9	Spike	P	0 - 30
2315310	Bentazon	6.07	Spike	P	0 - 30
2315310	Benzovindiflupyr	6.58	Spike	P	0 - 30
2315310	Carbamazepine	0.0807	Spike	P	0 - 30
2315310	Clothianidin	4.93	Spike	P	0 - 30
2315310	Dinotefuran	4.83	Spike	P	0 - 30
2315310	Diuron	14.6	Spike	P	0 - 30
2315310	Fenuron	7.30	Spike	P	0 - 30
2315310	Fluridone	6.41	Spike	P	0 - 30
2315310	Hydrocodone	16.7	Spike	P	0 - 30
2315310	Ibuprofen	0.364	Spike	P	0 - 30
2315310	Imazapyr	20.7	Spike	P	0 - 30
2315310	Imidacloprid	18.9	Spike	P	0 - 30
2315310	Linuron	7.14	Spike	P	0 - 30
2315310	Mandestrobin	8.62	Spike	P	0 - 30
2315310	MCP	1.69	Spike	P	0 - 30
2315310	Naproxen	4.70	Spike	P	0 - 30
2315310	Primidone	34.6	Spike	F	0 - 30
2315310	Pyraclostrobin	6.48	Spike	P	0 - 30
2315310	Silvex	6.03	Spike	P	0 - 30
2315310	Thiamethoxam	21.0	Spike	P	0 - 30
2315310	Tolfenpyrad	19.5	Spike	P	0 - 30
2315310	Triclopyr	7.71	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P411857

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315482	3-Hydroxycarbofuran	1.57	Spike	P	0 - 30
2315482	Aldicarb	16.4	Spike	P	0 - 30
2315482	Aldicarb Sulfone	12.1	Spike	P	0 - 30
2315482	Aldicarb Sulfoxide	7.73	Spike	P	0 - 30
2315482	Carbaryl	1.52	Spike	P	0 - 30
2315482	Carbofuran	12.3	Spike	P	0 - 30
2315482	Methiocarb	6.32	Spike	P	0 - 30
2315482	Methomyl	5.14	Spike	P	0 - 30
2315482	Oxamyl	4.89	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P411857

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315482	Propoxur	1.14	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P412136

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2316812	Total Alkalinity	0.997	Sample	P	0 - 5.2

Reference Method: SM 2540 C-2011
Batch ID: P412129

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315646	TDS	2.22	Sample	P	0 - 10

Reference Method: SM 2540 D-2011
Batch ID: P412020

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315646	TSS	2.60	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P412139

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2316812	Fluoride	0.475	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
Batch ID: P412046

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315649	Organic Carbon	0.471	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2315656
Field Sample ID: G1SD0061

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	67.0	P	30 - 160
EPA 8321B	Acetaminophen-d4	106	P	30 - 160
EPA 8321B	Carbamazepine-d10	104	P	30 - 160
EPA 8321B	Diuron-d6	73.5	P	30 - 160
EPA 8321B	Endothall-d6	94.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	114	P	30 - 160
EPA 8321B	Ibuprofen-d3	64.2	P	30 - 160
EPA 8321B	Primidone-d5	125	P	30 - 160
EPA 8321B	Sucralose-d6	114	P	30 - 160

Lab Sample ID: 2315657
Field Sample ID: G3SD0221

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	73.2	P	30 - 160

Lab Sample ID: 2315658
Field Sample ID: G3SD0221

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	68.9	P	30 - 160
EPA 8321B	Acetaminophen-d4	88.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	97.1	P	30 - 160
EPA 8321B	Diuron-d6	74.1	P	30 - 160
EPA 8321B	Endothall-d6	91.2	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	114	P	30 - 160
EPA 8321B	Ibuprofen-d3	52.0	P	30 - 160
EPA 8321B	Primidone-d5	118	P	30 - 160
EPA 8321B	Sucralose-d6	116	P	30 - 160

Lab Sample ID: 2315659
Field Sample ID: G3SD0221

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	93.9	P	38 - 115
EPA 8270E	Decachlorobiphenyl	109	P	31 - 118
EPA 8270E	Tetrachloro-m-xylene	67.9	P	29 - 98.0
EPA 8270E	Tetrachloro-m-xylene	86.0	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	80.4	P	30 - 97.0
EPA 8276	PCNB	81.7	P	45 - 119

Lab Sample ID: 2315660
Field Sample ID: G3SD0221

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	46.6	P	20 - 200
EPA 8270E	Caffeine-d9	73.5	P	20 - 200
EPA 8270E	Simazine-d10	94.9	P	71 - 140
EPA 8270E	Simazine-d10	93.5	P	71 - 140
EPA 8270E	Terbufos-d10	106	P	62 - 131
EPA 8270E	Terbufos-d10	78.7	P	62 - 131
EPA 8270E	Terphenyl-d14	107	P	55 - 108

Quality Assurance Report Surrogates

Lab Sample ID: 2315660
Field Sample ID: G3SD0221

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Terphenyl-d14	126	F	55 - 108

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A111257

Included Lab Sample IDs: 2315646, 2315648

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.0	99.5	P/P	95 - 105

Reference Method: DEP SOP: NU-094-1

Run ID: A111258

Included Lab Sample IDs: 2315646, 2315648

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	102	102	P/P	85 - 115

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A111270

Included Lab Sample IDs: 2315647, 2315649

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	97.5	97.0	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A111283

Included Lab Sample IDs: 2315656, 2315658

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	111	101	P/P	60 - 160
Glufosinate	100	96.8	P/P	60 - 160
Glyphosate	104	117	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A111286

Included Lab Sample IDs: 2315656, 2315658

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	102	104	P/P	60 - 160
Endothall	96.3	77.6	P/P	60 - 160
Sucralose	112	110	P/P	60 - 160

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A111293

Included Lab Sample IDs: 2315661

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	98.8	99.3	P/P	90 - 110
Antimony	97.7	98.5	P/P	90 - 110
Arsenic	99.2	99.0	P/P	90 - 110
Barium	97.0	96.3	P/P	90 - 110
Beryllium	93.8	93.7	P/P	90 - 110
Boron	102	105	P/P	90 - 110
Cadmium	97.8	98.4	P/P	90 - 110
Chromium	96.9	97.0	P/P	90 - 110
Cobalt	97.9	98.0	P/P	90 - 110
Copper	98.0	97.9	P/P	90 - 110
Lead	96.9	97.0	P/P	90 - 110
Manganese	95.6	96.3	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A111293

Included Lab Sample IDs: 2315661

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Molybdenum	97.1	97.8	P/P	90 - 110
Nickel	97.4	97.1	P/P	90 - 110
Selenium	97.6	97.5	P/P	90 - 110
Silver	103	103	P/P	90 - 110
Thallium	97.4	96.7	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A111326

Included Lab Sample IDs: 2315657

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	97.0	106	P/P	60 - 150
Aldicarb	84.0	95.2	P/P	60 - 150
Aldicarb Sulfone	100	107	P/P	50 - 150
Aldicarb Sulfoxide	105	107	P/P	50 - 150
Carbaryl	111	97.1	P/P	60 - 150
Carbofuran	106	104	P/P	50 - 150
Methiocarb	97.3	98.7	P/P	50 - 150
Methomyl	102	99.7	P/P	50 - 150
Oxamyl	100	101	P/P	50 - 150
Propoxur	110	112	P/P	50 - 150

Reference Method: EPA 8270E

Run ID: A111339

Included Lab Sample IDs: 2315659

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	97.7		P	80 - 120
Alpha-BHC	97.8		P	80 - 120
Alpha-Chlordane	101		P	80 - 120
Beta-BHC	105		P	80 - 120
Beta-Cyfluthrin	95.1		P	80 - 120
Bifenthrin	96.2		P	80 - 120
Chlorothalonil	103		P	80 - 120
Cis-Nonachlor	91.5		P	80 - 120
Cypermethrin	94.4		P	80 - 120
Dacthal	95.6		P	80 - 120
DDD-p,p'	92.2		P	80 - 120
DDE-p,p'	96.9		P	80 - 120
DDT-p,p'	99.9		P	80 - 120
Delta-BHC	104		P	80 - 120
Deltamethrin	93.9		P	80 - 120
Dichlobenil	101		P	80 - 120
Dicofol	96.4		P	80 - 120
Dieldrin	97.5		P	80 - 120
Endosulfan I	98.6		P	80 - 120
Endosulfan II	97.5		P	80 - 120
Endosulfan Sulfate	99.8		P	80 - 120
Endrin	97.5		P	80 - 120
Endrin Aldehyde	96.8		P	80 - 120
Endrin Ketone	106		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A111339

Included Lab Sample IDs: 2315659

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Esfenvalerate	95.7		P	80 - 120
Ethalfuralin	99.7		P	80 - 120
Fenpropathrin	95.9		P	80 - 120
Gamma-BHC	99.7		P	80 - 120
Gamma-Chlordane	98.2		P	80 - 120
Heptachlor	96.6		P	80 - 120
Heptachlor Epoxide	103		P	80 - 120
Hexachlorobenzene	103		P	80 - 120
Kepone	97.3		P	80 - 120
Lambda-Cyhalothrin	96.0		P	80 - 120
Methoprene	95.8		P	80 - 120
Methoxychlor	102		P	80 - 120
MGK-264	96.6		P	80 - 120
Mirex	97.1		P	80 - 120
Oxychlordane	97.5		P	80 - 120
Permethrin	98.1		P	80 - 120
Phenothrin	96.6		P	80 - 120
Piperonyl Butoxide	96.7		P	80 - 120
Prallethrin	98.3		P	80 - 120
Tau-Fluvalinate	95.4		P	80 - 120
Tetramethrin	97.9		P	80 - 120
Trans-Nonachlor	97.5		P	80 - 120
Triclosan Methyl	94.6		P	80 - 120
Trifluralin	97.6		P	80 - 120

Reference Method: SM 5310 B-2011

Run ID: A111353

Included Lab Sample IDs: 2315647, 2315649

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.5	96.6	P/P	90 - 110
Organic Carbon	96.6	96.3	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A111358

Included Lab Sample IDs: 2315656, 2315658

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	90.8	86.8	P/P	50 - 150
2,4,5-T	78.7	84.7	P/P	50 - 150
Acetaminophen	95.7	91.6	P/P	60 - 160
Acetamiprid	93.7	101	P/P	50 - 150
Afidopyropen	72.2	86.4	P/P	50 - 150
Bentazon	97.3	95.8	P/P	50 - 160
Benzovindiflupyr	79.1	93.5	P/P	50 - 160
Carbamazepine	92.7	94.7	P/P	60 - 150
Clothianidin	100	79.2	P/P	60 - 150
Dinotefuran	96.2	91.5	P/P	50 - 150
Diuron	91.8	103	P/P	60 - 160
Fenuron	92.0	94.3	P/P	60 - 150
Fluridone	89.8	90.5	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A111358

Included Lab Sample IDs: 2315656, 2315658

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Hydrocodone	87.3	84.3	P/P	60 - 150
Ibuprofen	91.9	85.7	P/P	50 - 160
Imazapyr	97.0	100	P/P	50 - 150
Imidacloprid	84.2	90.7	P/P	60 - 150
Linuron	105	108	P/P	60 - 150
Mandestrobin	90.2	94.9	P/P	50 - 150
MCPP	76.9	83.9	P/P	50 - 150
Naproxen	124	74.0	P/P	50 - 160
Primidone	104	133	P/P	60 - 150
Pyraclostrobin	92.5	96.8	P/P	60 - 150
Silvex	92.7	101	P/P	50 - 150
Thiamethoxam	94.2	86.7	P/P	50 - 150
Tolfenpyrad	102	104	P/P	60 - 150
Triclopyr	83.4	94.4	P/P	50 - 150

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A111365

Included Lab Sample IDs: 2315647, 2315649

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.4	97.1	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A111368

Included Lab Sample IDs: 2315646, 2315648

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.2	98.6	P/P	90 - 110
Sulfate	98.3	98.7	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A111379

Included Lab Sample IDs: 2315647, 2315649

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.1	97.3	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A111387

Included Lab Sample IDs: 2315660

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Avobenzone	102		P	80 - 120
Oxybenzone	101		P	80 - 120

Reference Method: SM 2320 B-2011

Run ID: A111388

Included Lab Sample IDs: 2315646, 2315648

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	96.9	95.5	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 4500-F- C-2011

Run ID: A111388

Included Lab Sample IDs: 2315646, 2315648

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A111402

Included Lab Sample IDs: 2315661

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Strontium	99.6	100	P/P	90 - 110
Tin	103	105	P/P	90 - 110
Titanium	103	104	P/P	90 - 110
Vanadium	103	104	P/P	90 - 110
Zinc	103	104	P/P	90 - 110

Reference Method: EPA 8276

Run ID: A111409

Included Lab Sample IDs: 2315659

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	95.4		P	80 - 120
Toxaphene	109		P	80 - 120

Reference Method: EPA 8270E

Run ID: A111414

Included Lab Sample IDs: 2315660

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	104		P	80 - 120
Alachlor	102		P	80 - 120
Ametryn	99.1		P	80 - 120
Atrazine	105		P	80 - 120
Atrazine Desethyl	103		P	80 - 120
Azinphos Methyl	105		P	80 - 120
Azoxystrobin	106		P	80 - 120
Bromacil	107		P	80 - 120
Butylate	98.6		P	80 - 120
Carbophenothion	99.0		P	80 - 120
Carfentrazone Ethyl	105		P	80 - 120
Chlorfenapyr	95.9		P	80 - 120
Chlorpyrifos Ethyl	97.7		P	80 - 120
Chlorpyrifos Methyl	98.5		P	80 - 120
Coumaphos	108		P	80 - 120
Cyanazine	107		P	80 - 120
Cyprodinil	103		P	80 - 120
Demeton	99.1		P	80 - 120
Diazinon	100		P	80 - 120
Difenoconazole	119		P	80 - 120
Dimethenamid	106		P	80 - 120
Dimethomorph	103		P	80 - 120
Disulfoton	101		P	80 - 120
Dithiopyr	104		P	80 - 120
EPTC	100		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A111414
Included Lab Sample IDs: 2315660

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ethion	99.3		P	80 - 120
Ethoprop	102		P	80 - 120
Etridiazole	101		P	80 - 120
Fenamiphos	101		P	80 - 120
Fenbuconazole	107		P	80 - 120
Fipronil	105		P	80 - 120
Fipronil Desulfinyl	106		P	80 - 120
Fipronil Sulfide	101		P	80 - 120
Fipronil Sulfone	110		P	80 - 120
Fluazifop-P-butyl	107		P	80 - 120
Fludioxonil	113		P	80 - 120
Flumioxazin	89.3		P	80 - 120
Flutolanil	108		P	80 - 120
Fonofos	103		P	80 - 120
Imazalil	104		P	80 - 120
Loratadine	103		P	80 - 120
Malathion	103		P	80 - 120
Metolachlor	108		P	80 - 120
Metribuzin	89.0		P	80 - 120
Mevinphos	100		P	80 - 120
Molinate	98.6		P	80 - 120
Myclobutanil	107		P	80 - 120
Naled	103		P	80 - 120
Napropamide	104		P	80 - 120
Oxyfluorfen	97.1		P	80 - 120
Parathion Ethyl	98.5		P	80 - 120
Parathion Methyl	97.7		P	80 - 120
Pendimethalin	103		P	80 - 120
Phenytoin	108		P	80 - 120
Phorate	105		P	80 - 120
Prodiamine	91.7		P	80 - 120
Prometon	100		P	80 - 120
Prometryn	105		P	80 - 120
Pronamide	101		P	80 - 120
Propanil	104		P	80 - 120
Propargite	101		P	80 - 120
Propiconazole	103		P	80 - 120
Pyraflufen Ethyl	104		P	80 - 120
Simazine	105		P	80 - 120
Stirophos	100		P	80 - 120
Sulfentrazone	106		P	80 - 120
Terbufos	100		P	80 - 120
Terbuthylazine	107		P	80 - 120
Thiobencarb	106		P	80 - 120
Triadimefon	104		P	80 - 120

Reference Method: EPA 8270E
Run ID: A111421
Included Lab Sample IDs: 2315660

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
-----------	---------	---------	------------	----------------

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A111421
Included Lab Sample IDs: 2315660

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Hexazinone	102		P	80 - 120
Iprodione	119		P	80 - 120
Metalaxyl	101		P	80 - 120
Norflurazon	105		P	80 - 120
Pyridaben	100		P	80 - 120
Pyriproxyfen	99.7		P	80 - 120
Tebuconazole	95.5		P	80 - 120

Reference Method: EPA 8270E
Run ID: A111460
Included Lab Sample IDs: 2315659

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	106		P	80 - 120
PCB-1260	101		P	80 - 120

Reference Method: EPA 8270E
Run ID: A111484
Included Lab Sample IDs: 2315660

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluxapyroxad	101		P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A111501
Included Lab Sample IDs: 2315661

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	103	99.0	P/P	90 - 110
Iron	102	98.7	P/P	90 - 110
Magnesium	102	98.9	P/P	90 - 110
Potassium	99.4	97.5	P/P	90 - 110
Sodium	98.0	95.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A111515
Included Lab Sample IDs: 2315647, 2315649

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	93.2	93.1	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A111529
Included Lab Sample IDs: 2315660

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Octinoxate	97.3		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A111532
Included Lab Sample IDs: 2315660

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Caffeine	97.9		P	80 - 120
Oxadiazon	102		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 SMP	MS
DEP SOP: NU-094-1	Color (true)	101					0.0054	
EPA 180.1 Rev. 2.0	Turbidity	96.2					0.943	
EPA 200.7 Rev. 4.4	Calcium	101	101	100				0.836
	Iron	104	102	101	103			1.21
	Magnesium	107	104	102	105			1.55
	Potassium	95.7	95.5	93.6	94.9			1.16
	Sodium	96.5	99.8	94.8				0.893
	Strontium	95.5	94.9	98.0	103			4.58
	Tin	101	99.4	103	105			2.06
	Titanium	97.4	103	102	105			2.37
	Vanadium	92.5	98.7	99.1	102			2.48
	Zinc	98.7	100	105	107			2.70
EPA 200.8 Rev. 5.4	Aluminum	99.1	109	98.7	96.4			1.99
	Antimony	96.7	97.9	97.9	96.8			1.13
	Arsenic	100	99.5	99.3	98.6			0.695
	Barium	101	99.5	99.4	98.2			1.09
	Beryllium	94.1	94.9	95.9	94.4			1.63
	Boron	103	102	105	105			0.432
	Cadmium	97.1	97.9	97.0	96.5			0.488
	Chromium	95.3	96.7	98.4	97.3			1.06
	Cobalt	100	98.9	98.4	96.6			1.78
	Copper	97.7	94.8	96.4	95.1			1.33
	Lead	98.4	96.8	98.7	97.4			1.25
	Manganese	94.9	95.7	96.0	94.3			1.51
	Molybdenum	98.4	99.9	101	99.3			1.49
	Nickel	99.0	97.5	97.9	96.3			1.61
	Selenium	98.8	97.6	98.1	96.1			2.06
	Silver	101	101	100	98.9			1.24
	Thallium	99.9	100	101	101			0.0325
EPA 300.0 Rev. 2.1	Chloride	98.3	96.4	96.9			2.18	
	Sulfate	97.6	95.5	97.0			0.151	
EPA 350.1 Rev. 2.0	Ammonia-N	96.0	94.4	98.2				2.63
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	97.8	92.7	92.0				0.667
EPA 353.2 Rev. 2.0	NO2NO3-N	92.0	98.5	98.5				0.0
EPA 365.1 Rev. 2.0	Total-P	101	104	101				1.77
EPA 8270E	Acetochlor	106	106	109				2.45
	Alachlor	92.9	94.9	94.6				0.313
	Aldrin	64.5	62.4	63.8				2.23
	Alpha-BHC	95.6	90.5	89.2				1.40
	Alpha-Chlordane	89.8	86.2	87.4				1.37
	Ametryn	109	125	110				12.5
	Atrazine	91.2	105	105				0.134
	Atrazine Desethyl	66.0	68.2	73.3				7.12
	Avobenzone	142	95.4	87.6				6.28
	Azinphos Methyl	74.7	86.5	85.4				1.28
	Azoxystrobin	86.8	117	121				3.21
	Beta-BHC	124	127	125				1.51
	Beta-Cyfluthrin	94.3	110	108				2.14
	Bifenthrin	69.8	85.2	84.2				1.23
	Bromacil	111	123	112				9.26
	Butylate	63.6	39.9	34.7				14.1
	Caffeine	81.0	76.9	94.9		5.23		
	Carbophenothion	111	127	109				14.7
	Carfentrazone Ethyl	126	131	132				0.804

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Chlorfenapyr	83.6	87.1	84.0			3.63
	Chlorothalonil	86.4	197	174			12.2
	Chlorpyrifos Ethyl	93.9	103	94.2			8.71
	Chlorpyrifos Methyl	90.6	97.1	91.4			6.02
	Cis-Nonachlor	82.2	68.6	69.2			0.907
	Coumaphos	178	201	184			9.08
	Cyanazine	181	176	146			19.0
	Cypermethrin	99.4	112	108			3.06
	Cyprodinil	123	132	131			0.476
	Dacthal	101	93.0	94.2			1.29
	DDD-p,p'	73.8	60.2	62.1			3.09
	DDE-p,p'	90.0	80.3	79.8			0.605
	DDT-p,p'	88.2	82.7	82.2			0.607
	Delta-BHC	124	140	131			6.23
	Deltamethrin	110	142	137			3.85
	Demeton	72.7	89.2	79.9			11.1
	Diazinon	104	108	106			1.44
	Dichlobenil	93.4	96.1	94.6			1.52
	Dicofol	82.8	80.0	79.4			0.693
	Dieldrin	95.7	84.0	84.9			1.14
	Difenoconazole	85.7	100	109			8.49
	Dimethenamid	85.7	85.5	85.3			0.246
	Dimethomorph	97.2	112	115			2.29
	Disulfoton	81.4	94.5	87.2			8.02
	Dithiopyr	98.2	98.3	105			6.39
	Endosulfan I	93.2	85.5	85.2			0.413
	Endosulfan II	101	83.4	84.9			1.76
	Endosulfan Sulfate	104	104	94.4			10.1
	Endrin	95.3	80.0	83.8			4.60
	Endrin Aldehyde	96.3	47.4	66.5			33.7
	Endrin Ketone	110	120	117			2.73
	EPTC	59.6	36.4	32.4			11.5
	Esfenvalerate	92.4	127	119			6.85
	Ethalfuralin	86.1	79.9	80.2			0.349
	Ethion	81.5	95.4	88.8			7.12
	Ethoprop	91.2	96.1	93.0			3.26
	Etridiazole	75.4	59.3	51.8			13.5
	Fenamiphos	106	125	113			9.50
	Fenbuconazole	149	142	156			9.17
	Fenpropathrin	94.7	102	101			0.987
	Fipronil	107	116	116			0.0005
	Fipronil Desulfinyl	103	98.7	96.3			2.41
	Fipronil Sulfide	87.1	99.4	89.2			10.8
	Fipronil Sulfone	105	121	110			9.42
	Fluazifop-P-butyl	93.5	98.3	93.4			5.17
	Fludioxonil	116	121	117			3.80
	Flumioxazin	135	195	117			50.5
	Flutolanil	94.3	102	95.8			6.01
	Fluxapyroxad	75.0	59.7	73.8			19.6
	Fonofos	84.3	97.4	92.5			5.22
	Gamma-BHC	109	98.3	96.6			1.70
	Gamma-Chlordane	89.9	85.2	85.2			0.0605
	Heptachlor	85.1	78.9	77.9			1.23
	Heptachlor Epoxide	97.4	89.4	89.0			0.459

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision	
							SMP	MS
EPA 8270E	Hexachlorobenzene	89.4		82.5	81.1			1.64
	Hexazinone	94.8		104	104			0.481
	Imazalil	65.6		79.3	79.9			0.740
	Iprodione	88.9		82.3	96.3			15.7
	Kepone	113		181	126			35.7
	Lambda-Cyhalothrin	83.8		107	108			1.49
	Loratadine	62.6		79.0	91.4			14.6
	Malathion	108		118	111			6.17
	Metalaxyl	89.2		88.8	93.2			4.86
	Methoprene	67.8		74.4	70.4			5.47
	Methoxychlor	107		113	111			2.58
	Metolachlor	100		104	109			3.53
	Metribuzin	85.0		101	82.5			20.4
	Mevinphos	81.1		81.9	81.4			0.592
	MGK-264	88.7		86.4	84.3			2.45
	Mirex	69.2		70.0	70.0			0.0112
	Molinate	72.2		58.7	56.4			4.11
	Myclobutanil	110		115	118			2.19
	Naled	86.8		89.0	75.8			16.1
	Napropamide	87.4		91.5	88.3			3.59
	Norflurazon	61.4		77.9	82.5			5.81
	Octinoxate	124	101	64.7		21.2		
	Oxadiazon	63.5	64.3	57.0		1.27		
	Oxybenzone	88.8		101	91.5			9.44
	Oxychlordane	89.3		89.1	84.0			5.88
	Oxyfluorfen	113		124	119			4.29
	Parathion Ethyl	92.6		96.8	104			6.96
	Parathion Methyl	101		107	113			5.23
	PCB-1016	75.8		88.3	80.6			9.13
	PCB-1260	103		116	108			7.19
	Pendimethalin	80.2		99.0	102			3.15
	Permethrin	98.6		113	108			3.83
	Phenothrin	72.8		91.1	91.9			0.854
	Phenytoin	133		136	145			6.19
	Phorate	91.1		101	91.3			10.5
	Piperonyl Butoxide	112		97.7	99.4			1.68
	Prallethrin	82.6		78.6	72.9			7.43
	Prodiamine	130		74.6	63.9			15.5
	Prometon	120		136	125			8.76
	Prometryn	113		126	118			5.92
	Pronamide	101		118	112			5.16
	Propanil	92.8		90.3	92.1			2.02
	Propargite	159		166	156			6.14
	Propiconazole	67.8		139	140			0.602
	Pyraflufen Ethyl	141		148	125			16.9
	Pyridaben	205		101	103			2.38
	Pyriproxyfen	90.6		90.1	104			14.8
	Simazine	93.9		101	100			0.252
	Stirophos	89.6		97.3	82.9			14.9
	Sulfentrazone	98.7		75.2	83.6			10.6
	Tau-Fluvalinate	79.4		110	106			3.90
	Tebuconazole	45.9		44.8	82.7			59.4
	Terbufos	108		120	112			6.61
	Terbuthylazine	89.4		99.3	97.2			2.06

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Tetramethrin	108	121	120			0.903
	Thiobencarb	95.5	97.4	99.7			2.31
	Trans-Nonachlor	91.4	81.2	88.8			9.01
	Triadimefon	87.7	93.9	94.7			0.863
	Triclosan Methyl	94.3	81.9	81.0			1.10
	Trifluralin	86.9	82.0	80.5			1.79
EPA 8276	Chlordane	87.5	88.5	88.6			0.0836
	Toxaphene	74.4	77.3	79.8			3.18
EPA 8321B	2,4-D	65.5	71.1	73.6			3.28
	2,4,5-T	56.7	60.7	56.7			6.77
	3-Hydroxycarbofuran	83.2	105	107			1.57
	Acesulfame K	79.5	125	120			4.09
	Acetaminophen	57.6	96.2	92.4			3.96
	Acetamiprid	85.4	87.8	103			15.6
	Afidopyropen	50.0	61.1	69.5			12.9
	Aldicarb	57.4	86.0	73.0			16.4
	Aldicarb Sulfone	93.6	122	108			12.1
	Aldicarb Sulfoxide	90.4	52.1	48.2			7.73
	AMPA	122	86.9	109			22.9
	Bentazon	132	108	124			6.07
	Benzovindiflupyr	83.3	81.0	86.5			6.58
	Carbamazepine	77.8	92.8	92.6			0.0807
	Carbaryl	83.4	70.9	69.8			1.52
	Carbofuran	98.0	94.6	83.6			12.3
	Clothianidin	96.5	106	111			4.93
	Dinotefuran	85.7	109	115			4.83
	Diuron	75.6	69.9	82.1			14.6
	Endothall	65.7	87.6	86.5			1.27
	Fenuron	117	117	126			7.30
	Fluridone	77.6	74.7	80.3			6.41
	Glufosinate	108	98.7	112			12.6
	Glyphosate	120	77.4	86.5			11.1
	Hydrocodone	89.3	95.7	113			16.7
	Ibuprofen	80.7	48.2	48.1			0.364
	Imazapyr	92.7	82.7	105			20.7
	Imidacloprid	97.4	101	123			18.9
	Linuron	63.1	75.8	81.4			7.14
	Mandestrobin	82.6	82.5	90.0			8.62
	MCPP	74.2	79.6	80.9			1.69
	Methiocarb	77.4	67.5	71.9			6.32
	Methomyl	89.4	94.9	90.1			5.14
	Naproxen	52.2	66.2	63.1			4.70
	Oxamyl	92.4	102	97.2			4.89
	Primidone	101	66.6	123			34.6
	Propoxur	82.4	88.2	87.2			1.14
	Pyraclostrobin	73.1	72.4	77.3			6.48
	Silvex	52.8	58.0	61.7			6.03
	Sucralose	88.3	96.1	90.9			5.56
	Thiamethoxam	85.0	100	124			21.0
	Tolfenpyrad	49.2	46.2	38.0			19.5
	Triclopyr	57.9	66.6	71.9			7.71
SM 2320 B-2011	Total Alkalinity	97.9				0.997	
SM 2540 C-2011	TDS					2.22	
SM 2540 D-2011	TSS					2.60	

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
SM 4500-F- C-2011	Fluoride	98.8				0.475
SM 5310 B-2011	Organic Carbon	97.4	95.5	96.4		0.471

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2315646, 2315648
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2315646, 2315648
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2315661
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2315661
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2315646, 2315648
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2315646, 2315648
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2315647, 2315649
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2315647, 2315649
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2315647, 2315649
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2315647, 2315649
EPA 8270E	Analysis of Sunscreen Compounds in Water by GC/MS-SIM	2315660
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2315659
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2315660
EPA 8270E	PCBs in water matrices by GC/MS/MS	2315659
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2315659
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2315657
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2315656, 2315658
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2315646, 2315648
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2315661
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2315646, 2315648
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2315646, 2315648
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2315646, 2315648
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2315647, 2315649

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	03/31/2022			03/31/2022 15:40	Anna M. Plaviak	2315646
	03/31/2022			03/31/2022 15:42	Anna M. Plaviak	2315648
EPA 180.1 Rev. 2.0	03/31/2022			03/31/2022 14:02	Khloe J Berg	2315646
	03/31/2022			03/31/2022 14:03	Khloe J Berg	2315648
EPA 200.7 Rev. 4.4	03/31/2022	04/04/2022 10:40	Megan Whitefoot	04/08/2022 23:01	McKinley C Carter	2315661
	03/31/2022	04/04/2022 10:40	Megan Whitefoot	04/13/2022 15:33	McKinley C Carter	2315661
EPA 200.8 Rev. 5.4	03/31/2022	04/04/2022 10:40	Megan Whitefoot	04/05/2022 04:04	Alexander Thompson	2315661
EPA 300.0 Rev. 2.1	03/31/2022			04/07/2022 16:53	Anna M. Plaviak	2315646
	03/31/2022			04/07/2022 17:05	Anna M. Plaviak	2315648
EPA 350.1 Rev. 2.0	03/31/2022			04/07/2022 10:32	Ping Hua	2315647
	03/31/2022			04/07/2022 10:33	Ping Hua	2315649
EPA 351.2 Rev. 2.0	03/31/2022	04/12/2022 17:00	Samantha L Bates	04/15/2022 15:01	Alexandra J Mattheus	2315647
	03/31/2022	04/12/2022 17:00	Samantha L Bates	04/15/2022 15:02	Alexandra J Mattheus	2315649
EPA 353.2 Rev. 2.0	03/31/2022			04/01/2022 10:18	Beverly Y. Sanders	2315647
	03/31/2022			04/01/2022 10:19	Beverly Y. Sanders	2315649
EPA 365.1 Rev. 2.0	03/31/2022	04/07/2022 10:00	Simonne.V. Calhoun	04/07/2022 17:05	Sarah A Nixon	2315647
	03/31/2022	04/07/2022 10:00	Simonne.V. Calhoun	04/07/2022 17:10	Sarah A Nixon	2315649
EPA 8270E	03/31/2022	04/01/2022 08:00	Rasheda Ghaffari	04/07/2022 19:41	Lipi Saha	2315660
	03/31/2022	04/01/2022 08:00	Rasheda Ghaffari	04/07/2022 20:38	Michael Poppell	2315660
	03/31/2022	04/01/2022 08:00	Rasheda Ghaffari	04/09/2022 23:53	Michael Poppell	2315660
	03/31/2022	04/01/2022 08:00	Rasheda Ghaffari	04/10/2022 00:19	Michael Poppell	2315660
	03/31/2022	04/01/2022 08:00	Rasheda Ghaffari	04/10/2022 00:45	Michael Poppell	2315660
	03/31/2022	04/01/2022 08:00	Rasheda Ghaffari	04/14/2022 19:49	Michael Poppell	2315660
	03/31/2022	04/04/2022 08:00	Rasheda Ghaffari	04/05/2022 22:54	Vandana T. Nagar	2315659
	03/31/2022	04/04/2022 08:00	Rasheda Ghaffari	04/13/2022 23:04	Vandana T. Nagar	2315659
	03/31/2022	04/13/2022 08:30	Rasheda Ghaffari	04/15/2022 20:45	Lipi Saha	2315660
	03/31/2022	04/13/2022 08:30	Rasheda Ghaffari	04/15/2022 21:11	Michael Poppell	2315660
EPA 8276	03/31/2022	04/04/2022 08:00	Rasheda Ghaffari	04/09/2022 03:24	Arthur Maknenko	2315659
EPA 8321B	03/31/2022	04/01/2022 09:30	Umesh Chiluwal	04/01/2022 12:39	Manjita Shrestha	2315656
	03/31/2022	04/01/2022 09:30	Umesh Chiluwal	04/01/2022 12:52	Manjita Shrestha	2315658
	03/31/2022	04/01/2022 09:30	Umesh Chiluwal	04/01/2022 22:57	Manjita Shrestha	2315656
	03/31/2022	04/01/2022 09:30	Umesh Chiluwal	04/01/2022 23:11	Manjita Shrestha	2315658
	03/31/2022	04/04/2022 09:30	June Rhew	04/05/2022 04:25	Juyoung Kim	2315656
	03/31/2022	04/04/2022 09:30	June Rhew	04/05/2022 05:00	Juyoung Kim	2315658
	03/31/2022	04/05/2022 08:30	June Rhew	04/06/2022 06:54	Juyoung Kim	2315657
	03/31/2022			04/08/2022 02:11	Dale L. Simmons	2315646
SM 2320 B-2011	03/31/2022			04/08/2022 02:26	Dale L. Simmons	2315648
SM 2340 B-2011	03/31/2022			04/13/2022 15:33	McKinley C Carter	2315661
SM 2540 C-2011	03/31/2022			04/05/2022 14:26	Blanca Fach	2315646, 2315648
SM 2540 D-2011	03/31/2022			04/05/2022 14:26	Blanca Fach	2315646, 2315648

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 4500-F- C-2011	03/31/2022			04/08/2022 02:11	Dale L. Simmons	2315646
	03/31/2022			04/08/2022 02:26	Dale L. Simmons	2315648
SM 5310 B-2011	03/31/2022			04/06/2022 21:51	Khloe J Berg	2315649
	03/31/2022			04/07/2022 00:25	Khloe J Berg	2315647