Chemical Analysis Report

SO-DIST-2023-11-21-02

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

Event Description: **2022 SMP: Venice**
Request ID: **RQ-2023-11-20-18**
Customer: **SO-DIST**
Project ID: **SMP**

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Certified by: Colin Wright, Program Administrator

Date Certified: 19-DEC-2023 15:15

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: 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: HATCHETT CREEK TIDAL 2 **Collection Date/Time: 11/20/2023 09:10**

Field ID: G3SD0192 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2452643	DEP SOP: NU-094-1	Color (true)	2.6	I	PCU	P438139	
	EPA 180.1 Rev. 2.0	Turbidity	2.3		NTU	P438142	
	EPA 300.0 Rev. 2.1	Chloride	1.9E+04		mg Cl/L	P438359	
		Sulfate	2.6E+03		mg SO4/L	P438362	
	SM 2320 B-2011	Total Alkalinity	133		mg CaCO3/L	P438223	
	SM 2540 C-2015	TDS	3.17E+04		mg/L	P438383	
	SM 2540 D-2015	TSS	4	I	mg/L	P438373	
	SM 4500-F- C-2011	Fluoride	1.2		mg F/L	P438552	
2452644	EPA 350.1 Rev. 2.0	Ammonia-N	0.074		mg N/L	P438501	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.56		mg N/L	P438294	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.063		mg N/L	P438185	
	EPA 365.1 Rev. 2.0	Total-P	0.068		mg P/L	P438323	
	SM 5310 B-2011	Organic Carbon	4.5		mg C/L	P438442	

Ref. Method and Comment:
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: HATCHETT CREEK AT PINEBROOK RD **Collection Date/Time: 11/20/2023 10:00**

Field ID: G3SD0103 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2452652	EPA 8270E	Aldrin	0.68	U	ng/L	P438263	
		Alpha-BHC	0.10	U	ng/L	P438263	
		Alpha-Chlordane	0.21	UJ	ng/L	P438263	LCS
		PCB-1016	2.1	U	ng/L	P438263	
		Beta-BHC	0.10	UJ	ng/L	P438263	MS
		PCB-1221	2.1	U	ng/L	P438263	
		Beta-Cyfluthrin	1.3	U	ng/L	P438263	
		PCB-1232	2.1	U	ng/L	P438263	
		Bifenthrin	0.52	U	ng/L	P438263	
		PCB-1242	2.1	U	ng/L	P438263	
		PCB-1248	2.1	U	ng/L	P438263	
		Chlorothalonil	3.8	U	ng/L	P438263	
		PCB-1254	2.1	U	ng/L	P438263	
		Cis-Nonachlor	0.21	UJ	ng/L	P438263	RPD
		PCB-1260	2.1	U	ng/L	P438263	
		Cypermethrin	1.6	U	ng/L	P438263	
		Dacthal	0.16	UJ	ng/L	P438263	MS, RPD
		DDD-p,p'	0.26	U	ng/L	P438263	
		DDE-p,p'	0.21	U	ng/L	P438263	
		DDT-p,p'	1.7	I	ng/L	P438263	
		Delta-BHC	0.42	U	ng/L	P438263	
		Deltamethrin	1.3	U	ng/L	P438263	
		Dichlobenil	0.26	U	ng/L	P438263	
		Dicofol	1.3	U	ng/L	P438263	
		Dieldrin	0.42	U	ng/L	P438263	
		Endosulfan I	0.42	UJ	ng/L	P438263	RPD
		Endosulfan II	0.94	U	ng/L	P438263	
		Endosulfan Sulfate	0.31	U	ng/L	P438263	
		Endrin	0.94	U	ng/L	P438263	
		Endrin Aldehyde	0.78	U	ng/L	P438263	
		Endrin Ketone	0.42	UJ	ng/L	P438263	CCV, LCS, MS
		Esfenvalerate	0.78	U	ng/L	P438263	
		Ethalfluralin	0.16	UJ	ng/L	P438263	LCS
		Fenpropathrin	0.26	U	ng/L	P438263	
		Gamma-BHC	0.13	U	ng/L	P438263	
		Gamma-Chlordane	0.21	U	ng/L	P438263	
		Heptachlor	0.21	UJ	ng/L	P438263	CCV
		Heptachlor Epoxide	0.26	U	ng/L	P438263	
		Hexachlorobenzene**	1.0	U	ng/L	P438263	
		Kepone	14	U	ng/L	P438263	
		Lambda-Cyhalothrin	0.78	U	ng/L	P438263	
		Methoprene	0.78	U	ng/L	P438263	
		Methoxychlor	0.31	U	ng/L	P438263	

Field ID: G3SD0103 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2452652	EPA 8270E	MGK-264	0.21	U	ng/L	P438263	
		Mirex	0.37	U	ng/L	P438263	
		Oxychlordane	0.31	UJ	ng/L	P438263	CCV
		Permethrin	1.7	U	ng/L	P438263	
		Phenothrin	0.94	U	ng/L	P438263	
		Piperonyl Butoxide	0.42	I	ng/L	P438263	
		Prallethrin	2.1	U	ng/L	P438263	
		Tau-Fluvalinate	0.26	U	ng/L	P438263	
		Tetramethrin	0.78	U	ng/L	P438263	
		Trans-Nonachlor	0.21	U	ng/L	P438263	
		Triclosan Methyl	0.16	U	ng/L	P438263	
		Trifluralin	0.21	U	ng/L	P438263	
	EPA 8276	Chlordane	2.1	U	ng/L	P438263	
		Toxaphene	16	U	ng/L	P438263	

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

Sample Location: ALLIGATOR CREEK AT INFLOW **Collection Date/Time: 11/20/2023 10:40**

Field ID: G2SD0053 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2452650	EPA 8321B	Aldicarb	0.020	U	ug/L	P437954	
		Aldicarb Sulfone	0.0020	U	ug/L	P437954	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P437954	
		Carbaryl	0.0020	U	ug/L	P437954	
		Carbofuran	0.0020	U	ug/L	P437954	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P437954	
		Methiocarb	0.0020	U	ug/L	P437954	
		Methomyl	0.0020	U	ug/L	P437954	
		Oxamyl	0.0020	U	ug/L	P437954	
		Propoxur	0.0020	U	ug/L	P437954	
2452651		2,4-D	0.029		ug/L	P438135	
		Acesulfame K	0.13	I	ug/L	P438082	
		2,4,5-T	0.0040	U	ug/L	P438135	
		AMPA	0.56		ug/L	P438082	
		Acetaminophen	0.0080	U	ug/L	P438135	
		Acetamiprid	0.0020	U	ug/L	P438135	
		Endothall	0.25	U	ug/L	P438082	
		Glufosinate	0.10	U	ug/L	P438082	
		Glyphosate	2.9		ug/L	P438082	
		Afidopyropen	0.0020	U	ug/L	P438135	
		Bentazon	0.0068		ug/L	P438135	
		Sucralose	2.2		ug/L	P438082	
		Benzovindiflupyr	0.0020	U	ug/L	P438135	
		Carbamazepine	0.0028	I	ug/L	P438135	
		Clothianidin	0.0020	U	ug/L	P438135	
		Dinotefuran	0.0020	U	ug/L	P438135	
		Diuron	0.033		ug/L	P438135	
		Fenuron	0.032	U	ug/L	P438135	
		Fluridone	0.018		ug/L	P438135	
		Imazapyr	1.8		ug/L	P438135	
		Hydrocodone	0.0020	U	ug/L	P438135	
		Ibuprofen	0.080	U	ug/L	P438135	
		Imidacloprid	0.010		ug/L	P438135	
		Linuron	0.0040	U	ug/L	P438135	
		Mandestrobin	0.0020	U	ug/L	P438135	
		MCPP	0.0026	I	ug/L	P438135	
		Naproxen	0.0080	U	ug/L	P438135	
		Primidone	0.012	I	ug/L	P438135	
		Pyraclostrobin	0.0020	U	ug/L	P438135	
		Silvex	0.0040	U	ug/L	P438135	
		Thiamethoxam	0.0020	U	ug/L	P438135	
		Tolfenpyrad	0.0020	U	ug/L	P438135	
		Triclopyr	0.0040	U	ug/L	P438135	
2452653	EPA 8270E	Aldrin	0.67	U	ng/L	P438263	

Field ID: G2SD0053 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2452653	EPA 8270E	Alpha-BHC	0.10	U	ng/L	P438263	
		Alpha-Chlordane	0.21	UJ	ng/L	P438263	LCS
		PCB-1016	2.1	U	ng/L	P438263	
		Beta-BHC	0.10	U	ng/L	P438263	MS
		PCB-1221	2.1	U	ng/L	P438263	
		Beta-Cyfluthrin	1.3	U	ng/L	P438263	
		PCB-1232	2.1	U	ng/L	P438263	
		Bifenthrin	0.52	U	ng/L	P438263	
		PCB-1242	2.1	U	ng/L	P438263	
		PCB-1248	2.1	U	ng/L	P438263	
		Chlorothalonil	3.7	U	ng/L	P438263	
		PCB-1254	2.1	U	ng/L	P438263	
		Cis-Nonachlor	0.21	U	ng/L	P438263	RPD
		PCB-1260	2.1	U	ng/L	P438263	
		Cypermethrin	1.5	U	ng/L	P438263	
		Dacthal	0.15	U	ng/L	P438263	MS, RPD
		DDD-p,p'	0.26	U	ng/L	P438263	
		DDE-p,p'	0.21	U	ng/L	P438263	
		DDT-p,p'	0.82	U	ng/L	P438263	
		Delta-BHC	0.41	U	ng/L	P438263	
		Deltamethrin	1.3	U	ng/L	P438263	
		Dichlobenil	0.26	U	ng/L	P438263	
		Dicofol	1.3	U	ng/L	P438263	
		Dieldrin	0.41	U	ng/L	P438263	
		Endosulfan I	0.41	U	ng/L	P438263	RPD
		Endosulfan II	0.93	U	ng/L	P438263	
		Endosulfan Sulfate	0.31	U	ng/L	P438263	
		Endrin	0.93	U	ng/L	P438263	
		Endrin Aldehyde	0.77	U	ng/L	P438263	
		Endrin Ketone	0.41	UJ	ng/L	P438263	CCV, LCS, MS
		Esfenvalerate	0.77	U	ng/L	P438263	
		Ethalfluralin	0.15	UJ	ng/L	P438263	LCS
		Fenpropathrin	0.26	U	ng/L	P438263	
		Gamma-BHC	0.13	U	ng/L	P438263	
		Gamma-Chlordane	0.21	U	ng/L	P438263	
		Heptachlor	0.21	UJ	ng/L	P438263	CCV
		Heptachlor Epoxide	0.26	U	ng/L	P438263	
		Hexachlorobenzene**	1.0	U	ng/L	P438263	
		Kepone	14	U	ng/L	P438263	
		Lambda-Cyhalothrin	0.77	U	ng/L	P438263	
		Methoprene	0.77	U	ng/L	P438263	
		Methoxychlor	0.31	U	ng/L	P438263	
		MGK-264	0.21	U	ng/L	P438263	
		Mirex	0.36	U	ng/L	P438263	

Field ID: G2SD0053 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2452653	EPA 8270E	Oxychlordane	0.31	UJ	ng/L	P438263	CCV
		Permethrin	1.6	U	ng/L	P438263	
		Phenothrin	0.93	U	ng/L	P438263	
		Piperonyl Butoxide	0.15	U	ng/L	P438263	
		Prallethrin	2.1	U	ng/L	P438263	
		Tau-Fluvalinate	0.26	U	ng/L	P438263	
		Tetramethrin	0.77	U	ng/L	P438263	
		Trans-Nonachlor	0.21	U	ng/L	P438263	
		Triclosan Methyl	0.15	U	ng/L	P438263	
		Trifluralin	0.21	U	ng/L	P438263	
	EPA 8276	Chlordane	2.1	U	ng/L	P438263	
		Toxaphene	15	U	ng/L	P438263	
2452654	EPA 8270E	Oxybenzone**	10	U	ng/L	P438143	
		Acetochlor	0.21	U	ng/L	P438143	
		Octinoxate**	150	U	ng/L	P438143	
		Alachlor	0.41	U	ng/L	P438143	
		Avobenzone**	100	U	ng/L	P438143	
		Ametryn	1.1	U	ng/L	P438143	
		Atrazine	17		ng/L	P438143	
		PBDE-47**	4.1	U	ng/L	P438143	
		Atrazine Desethyl	2.5	I	ng/L	P438143	
		PBDE-99**	5.1	U	ng/L	P438143	
		Azinphos Methyl	3.1	U	ng/L	P438143	
		Tri-o-cresyl Phosphate**	6.2	U	ng/L	P438143	
		Azoxystrobin	0.41	U	ng/L	P438143	
		Bromacil	0.62	U	ng/L	P438143	
		2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)**	12	UJ	ng/L	P438143	LCS
		Butylate	0.46	U	ng/L	P438143	
		Dechlorane Plus**	31	U	ng/L	P438143	
		Caffeine**	25	I	ng/L	P438143	
		Dechlorane 602**	5.1	U	ng/L	P438143	
		Carbophenothion	0.51	U	ng/L	P438143	
		Dechlorane 603**	4.1	U	ng/L	P438143	
		Carfentrazone Ethyl	0.15	U	ng/L	P438143	
		Hexabromobenzene**	6.2	U	ng/L	P438143	
		Chlorfenapyr	0.31	U	ng/L	P438143	
		PBB-153**	6.2	U	ng/L	P438143	
		Chlorpyrifos Ethyl	0.31	U	ng/L	P438143	
		Pentabromotoluene**	3.1	U	ng/L	P438143	
		Chlorpyrifos Methyl	0.10	U	ng/L	P438143	
		Tris(2-chloroethyl) phosphate (TCEP)**	56	U	ng/L	P438143	
		Coumaphos	1.1	U	ng/L	P438143	
		Tris(1-chloro-2-propyl) phosphate (TCPP)**	100		ng/L	P438143	
		Cyanazine	5.1	U	ng/L	P438143	

Field ID: G2SD0053 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2452654	EPA 8270E	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)**	4.4	I	ng/L	P438143	
		Cyprodinil	0.21	U	ng/L	P438143	
		Tetradecachloro-m-terphenyl**	7.7	U	ng/L	P438143	
		Demeton	3.6	U	ng/L	P438143	
		2-(2H-benzotriazol-2-yl)-4,6-ditertpentyl phenol (UV-328)**	65	I	ng/L	P438143	
		Diazinon	0.13	U	ng/L	P438143	
		Difenoconazole	0.62	U	ng/L	P438143	
		Dimethenamid	0.10	U	ng/L	P438143	
		Dimethomorph	0.31	U	ng/L	P438143	
		Disulfoton	0.62	U	ng/L	P438143	
		Dithiopyr	1.0	U	ng/L	P438143	
		EPTC	0.51	U	ng/L	P438143	
		Ethion	0.31	U	ng/L	P438143	
		Ethoprop	0.13	U	ng/L	P438143	
		Etridiazole	0.10	U	ng/L	P438143	
		Fenamiphos	0.46	U	ng/L	P438143	
		Fenbuconazole	0.51	U	ng/L	P438143	
		Fipronil	0.69	I	ng/L	P438143	
		Fipronil Desulfinyl**	1.1		ng/L	P438143	
		Fipronil Sulfide	0.75		ng/L	P438143	
		Fipronil Sulfone	1.3	J	ng/L	P438143	
		Fluazifop-P-butyl	0.10	U	ng/L	P438143	
		Fludioxonil	0.10	U	ng/L	P438143	
		Flumioxazin	3.1	U	ng/L	P438143	
		Flutolanil	2.2	J	ng/L	P438143	
		Fluxapyroxad	1.9	J	ng/L	P438143	
		Fonofos	0.15	U	ng/L	P438143	
		Hexazinone	12		ng/L	P438143	
		Imazalil	0.67	U	ng/L	P438143	
		Iprodione	0.51	U	ng/L	P438143	
		Loratadine**	0.31	U	ng/L	P438143	
		Malathion	0.36	U	ng/L	P438143	
		Metalaxyl	0.51	U	ng/L	P438143	
		Metolachlor	1.3	I	ng/L	P438143	
		Metribuzin	0.41	U	ng/L	P438143	
		Mevinphos	1.0	U	ng/L	P438143	
		Molinate	0.26	U	ng/L	P438143	
		Myclobutanil	0.36	U	ng/L	P438143	
		Naled	2.6	U	ng/L	P438143	
		Napropamide	0.72	U	ng/L	P438143	
		Norflurazon	1.0	U	ng/L	P438143	
		Oxadiazon	1.6	I	ng/L	P438143	
		Oxyfluorfen	0.21	U	ng/L	P438143	
		Parathion Ethyl	0.15	U	ng/L	P438143	

Field ID: G2SD0053 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2452654	EPA 8270E	Parathion Methyl	0.21	U	ng/L	P438143	
		Pendimethalin	1.7	U	ng/L	P438143	
		Phenytoin**	5.4	U	ng/L	P438143	
		Phorate	0.26	U	ng/L	P438143	
		Prodiamine	0.21	U	ng/L	P438143	
		Prometon	3.1	U	ng/L	P438143	
		Prometryn	0.36	U	ng/L	P438143	
		Pronamide	0.10	U	ng/L	P438143	
		Propanil	0.10	U	ng/L	P438143	
		Propargite	0.82	U	ng/L	P438143	
		Propiconazole	0.62	U	ng/L	P438143	
		Pyraflufen Ethyl	0.31	U	ng/L	P438143	
		Pyridaben	1.4	U	ng/L	P438143	
		Pyriproxyfen	0.26	U	ng/L	P438143	
		Simazine	1.5		ng/L	P438143	
		Stirophos	0.41	UJ	ng/L	P438143	CCV
		Sulfentrazone	11	J	ng/L	P438143	
		Tebuconazole	1.4	U	ng/L	P438143	
		Terbufos	0.21	U	ng/L	P438143	
		Terbuthylazine	0.21	U	ng/L	P438143	
		Thiobencarb	0.51	U	ng/L	P438143	
		Triadimefon	0.15	U	ng/L	P438143	

Ref. Method and Comment:
EPA 8321B: MS accuracy for bentazon could not be assessed due to 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. Estimated value for fipronil sulfone, flutolanil, fluxapyroxad and sulfentrazone due to internal standard recovery exceeding control limits. Refer to the Lab Analysis Report for an explanation of QC Codes.

Quality Assurance Report
Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P438139

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P438142

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438359

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438362

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438501

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P438294

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438185

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P438323

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

Reference Method: EPA 8270E
Batch ID: P438143

Component	Result	Code	Units
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	60	U	ng/L
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	12	U	ng/L
Acetochlor	0.20	U	ng/L
Alachlor	0.40	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P438143

Component	Result	Code	Units
Ametryn	1.1	U	ng/L
Atrazine	0.20	U	ng/L
Atrazine Desethyl	1.3	U	ng/L
Avobenzone	100	U	ng/L
Azinphos Methyl	3.0	U	ng/L
Azoxystrobin	0.40	U	ng/L
Bromacil	0.60	U	ng/L
Butylate	0.45	U	ng/L
Caffeine	7.5	U	ng/L
Carbophenothion	0.50	U	ng/L
Carfentrazone Ethyl	0.15	U	ng/L
Chlorfenapyr	0.30	U	ng/L
Chlorpyrifos Ethyl	0.30	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
Coumaphos	1.0	U	ng/L
Cyanazine	5.0	U	ng/L
Cyprodinil	0.20	U	ng/L
Dechlorane 602	5.0	U	ng/L
Dechlorane 603	4.0	U	ng/L
Dechlorane Plus	30	U	ng/L
Demeton	3.5	U	ng/L
Diazinon	0.12	U	ng/L
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethomorph	0.30	U	ng/L
Disulfoton	0.60	U	ng/L
Dithiopyr	1.0	U	ng/L
EPTC	0.50	U	ng/L
Ethion	0.30	U	ng/L
Ethoprop	0.12	U	ng/L
Etridiazole	0.10	U	ng/L
Fenamiphos	0.45	U	ng/L
Fenbuconazole	0.50	U	ng/L
Fipronil	0.20	U	ng/L
Fipronil Desulfinyl	0.10	U	ng/L
Fipronil Sulfide	0.10	U	ng/L
Fipronil Sulfone	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.10	U	ng/L
Flumioxazin	3.0	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.25	U	ng/L
Fonofos	0.15	U	ng/L
Hexabromobenzene	6.0	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.65	U	ng/L
Iprodione	0.50	U	ng/L
Loratadine	0.30	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.50	U	ng/L
Metolachlor	0.75	U	ng/L
Metribuzin	0.40	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P438143

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

Reference Method: EPA 8270E
Batch ID: P438263

Component	Result	Code	Units
Aldrin	0.65	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P438263

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8276
Batch ID: P438263

Component	Result	Code	Units
Chlordane	2.0	U	ng/L
Toxaphene	15	U	ng/L

Reference Method: EPA 8321B
Batch ID: P437954

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

Reference Method: EPA 8321B
Batch ID: P438082

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: P438135

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.032	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.080	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8321B
Batch ID: P438135

Component	Result	Code	Units
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Silvex	0.0040	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2320 B-2011
Batch ID: P438223

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

Reference Method: SM 2540 C-2015
Batch ID: P438383

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P438373

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P438552

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P438442

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: P438139

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.2		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P438142

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438359

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438362

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438501

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: P438294

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	99.3		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438185

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P438323

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

Reference Method: EPA 8270E
Batch ID: P438143

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	61.7		P	50 - 150
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	31.7		F	37 - 154
Acetochlor	89.5		P	64 - 124
Alachlor	100		P	61 - 118

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P438143

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ametryn	108		P	47 - 158
Atrazine	81.1		P	68 - 121
Atrazine Desethyl	57.8		P	30 - 119
Avobenzone	83.6		P	48 - 193
Azinphos Methyl	162		P	30 - 194
Azoxystrobin	82.7		P	58 - 154
Bromacil	51.3		P	47 - 126
Butylate	40.7		P	31 - 83.0
Caffeine	108		P	10 - 180
Carbophenothion	94.5		P	59 - 133
Carfentrazone Ethyl	101		P	59 - 147
Chlorfenapyr	75.5		P	52 - 118
Chlorpyrifos Ethyl	64.1		P	59 - 119
Chlorpyrifos Methyl	98.6		P	65 - 123
Coumaphos	94.5		P	11 - 223
Cyanazine	129		P	63 - 250
Cyprodinil	107		P	52 - 143
Dechlorane 602	78.9		P	23 - 142
Dechlorane 603	89.2		P	51 - 171
Dechlorane Plus	98.1		P	46 - 161
Demeton	84.2		P	42 - 119
Diazinon	105		P	67 - 132
Difenoconazole	70.3		P	12 - 204
Dimethenamid	78.2		P	53 - 113
Dimethomorph	126		P	13 - 238
Disulfoton	67.8		P	56 - 126
Dithiopyr	89.5		P	58 - 127
EPTC	47.5		P	31 - 78.0
Ethion	80.7		P	24 - 127
Ethoprop	71.0		P	60 - 118
Etridiazole	58.1		P	32 - 91.0
Fenamiphos	75.2		P	54 - 129
Fenbuconazole	61.3		P	31 - 162
Fipronil	98.5		P	56 - 131
Fipronil Desulfinyl	80.0		P	58 - 132
Fipronil Sulfide	79.4		P	51 - 123
Fipronil Sulfone	59.5		P	50 - 125
Fluazifop-P-butyl	112		P	52 - 132
Fludioxonil	85.5		P	52 - 129
Flumioxazin	76.9		P	34 - 250
Flutolanil	64.4		P	45 - 128
Fluxapyroxad	72.9		P	31 - 150
Fonofos	65.9		P	60 - 116
Hexabromobenzene	75.3		P	52 - 165
Hexazinone	79.8		P	59 - 120
Imazalil	50.2		P	39 - 134
Iprodione	64.2		P	39 - 243
Loratadine	99.4		P	10 - 240
Malathion	108		P	53 - 145
Metalaxyl	76.4		P	59 - 120
Metolachlor	90.1		P	64 - 122
Metribuzin	82.9		P	33 - 128

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P438143

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Mevinphos	54.0		P	48 - 119
Molinate	70.9		P	42 - 89.0
Myclobutanil	113		P	54 - 129
Naled	56.2		P	10 - 138
Napropamide	44.1		P	40 - 122
Norflurazon	118		P	49 - 132
Octinoxate	110		P	29 - 176
Oxadiazon	99.3		P	50 - 115
Oxybenzone	104		P	45 - 145
Oxyfluorfen	105		P	62 - 149
Parathion Ethyl	96.9		P	68 - 119
Parathion Methyl	109		P	68 - 147
PBB-153	45.1		P	42 - 179
PBDE-47	90.2		P	44 - 141
PBDE-99	53.8		P	36 - 141
Pendimethalin	98.4		P	59 - 158
Pentabromotoluene	87.2		P	58 - 148
Phenytoin	25.8		P	10 - 151
Phorate	113		P	44 - 124
Prodiamine	87.1		P	10 - 136
Prometon	104		P	45 - 131
Prometryn	113		P	52 - 140
Pronamide	108		P	70 - 129
Propanil	110		P	54 - 144
Propargite	49.6		P	10 - 191
Propiconazole	65.1		P	49 - 128
Pyraflufen Ethyl	97.1		P	46 - 141
Pyridaben	97.1		P	29 - 198
Pyriproxyfen	123		P	33 - 221
Simazine	76.3		P	62 - 119
Stirophos	28.4		P	13 - 144
Sulfentrazone	64.4		P	12 - 152
Tebuconazole	48.7		P	10 - 135
Terbufos	69.7		P	67 - 136
Terbuthylazine	93.3		P	66 - 113
Tetradecachloro-m-terphenyl	78.6		P	30 - 235
Thiobencarb	94.6		P	51 - 125
Tri-o-cresyl Phosphate	115		P	50 - 150
Triadimefon	73.0		P	57 - 118
Tris(1-chloro-2-propyl) phosphate (TCPP)	122		P	60 - 160
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	95.8		P	66 - 141
Tris(2-chloroethyl) phosphate (TCEP)	104		P	59 - 166

Reference Method: EPA 8270E
Batch ID: P438263

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	47.0		P	30 - 96.0
Alpha-BHC	72.9		P	70 - 109
Alpha-Chlordane	115		F	45 - 107
Beta-BHC	96.1		P	64 - 138
Beta-Cyfluthrin	55.4		P	17 - 141

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P438263

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Bifenthrin	41.7		P	10 - 113
Chlorothalonil	64.6		P	26 - 180
Cis-Nonachlor	56.1		P	37 - 102
Cypermethrin	46.1		P	20 - 133
Dacthal	87.4		P	69 - 114
DDD-p,p'	58.0		P	42 - 105
DDE-p,p'	63.6		P	42 - 106
DDT-p,p'	83.7		P	42 - 107
Delta-BHC	106		P	67 - 144
Deltamethrin	53.7		P	15 - 149
Dichlobenil	85.8		P	46 - 117
Dicofol	78.7		P	34 - 114
Dieldrin	57.0		P	50 - 108
Endosulfan I	91.8		P	55 - 104
Endosulfan II	60.5		P	51 - 111
Endosulfan Sulfate	75.2		P	56 - 121
Endrin	59.6		P	10 - 106
Endrin Aldehyde	60.7		P	34 - 114
Endrin Ketone	58.4		F	63 - 177
Esfenvalerate	65.9		P	29 - 143
Ethalfluralin	101		F	46 - 96.0
Fenpropathrin	55.2		P	28 - 115
Gamma-BHC	98.1		P	65 - 121
Gamma-Chlordane	71.1		P	39 - 103
Heptachlor	39.9		P	39 - 94.0
Heptachlor Epoxide	61.8		P	54 - 104
Hexachlorobenzene	87.8		P	36 - 100
Kepone	177		P	10 - 225
Lambda-Cyhalothrin	55.5		P	10 - 135
Methoprene	78.1		P	10 - 109
Methoxychlor	58.2		P	52 - 112
MGK-264	57.7		P	44 - 117
Mirex	53.5		P	20 - 90.0
Oxychlordane	44.0		P	44 - 102
PCB-1016	68.5		P	45 - 107
PCB-1260	92.7		P	40 - 112
Permethrin	51.2		P	18 - 135
Phenothrin	50.4		P	10 - 102
Piperonyl Butoxide	76.5		P	28 - 156
Prallethrin	64.3		P	28 - 113
Tau-Fluvalinate	76.2		P	10 - 123
Tetramethrin	78.4		P	18 - 158
Trans-Nonachlor	103		P	39 - 104
Triclosan Methyl	59.7		P	54 - 108
Trifluralin	52.0		P	46 - 97.0

Reference Method: EPA 8276
Batch ID: P438263

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	70.7		P	43 - 123
Toxaphene	75.0		P	27 - 156

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P437954

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	78.3		P	40 - 150
Aldicarb	43.7		P	30 - 150
Aldicarb Sulfone	88.8		P	40 - 150
Aldicarb Sulfoxide	123		P	40 - 150
Carbaryl	71.8		P	40 - 150
Carbofuran	76.4		P	40 - 150
Methiocarb	60.0		P	40 - 150
Methomyl	80.5		P	40 - 150
Oxamyl	85.9		P	40 - 150
Propoxur	72.6		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P438082

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	95.2		P	40 - 150
AMPA	98.8		P	40 - 160
Endothall	102		P	40 - 160
Glufosinate	105		P	40 - 160
Glyphosate	103		P	40 - 160
Sucralose	99.3		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P438135

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	97.8		P	40 - 150
2,4,5-T	98.4		P	40 - 150
Acetaminophen	95.5		P	30 - 150
Acetamiprid	92.3		P	40 - 150
Afidopyropen	82.1		P	30 - 150
Bentazon	70.0		P	30 - 150
Benzovindiflupyr	85.3		P	40 - 150
Carbamazepine	79.1		P	40 - 150
Clothianidin	86.7		P	40 - 150
Dinotefuran	102		P	40 - 150
Diuron	76.1		P	40 - 150
Fenuron	124		P	40 - 150
Fluridone	86.3		P	40 - 150
Hydrocodone	99.4		P	40 - 150
Ibuprofen	64.1		P	40 - 150
Imazapyr	89.2		P	40 - 150
Imidacloprid	86.9		P	40 - 150
Linuron	72.4		P	40 - 150
Mandestrobin	84.2		P	40 - 150
MCPP	92.9		P	40 - 150
Naproxen	76.2		P	40 - 150
Primidone	85.2		P	40 - 150
Pyraclostrobin	80.9		P	40 - 150
Silvex	85.5		P	40 - 150
Thiamethoxam	92.7		P	40 - 150
Tolfenpyrad	60.7		P	30 - 150

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P438135

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Triclopyr	107		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P438223

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.1		P	92 - 105

Reference Method: SM 2540 C-2015
Batch ID: P438383

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	97.2		P	85 - 115

Reference Method: SM 2540 D-2015
Batch ID: P438373

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	97.6		P	85 - 115

Reference Method: SM 4500-F- C-2011
Batch ID: P438552

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	102		P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P438442

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.1		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438359

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2452598	Chloride	104		P	90 - 110
2452883	Chloride	98.5		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438362

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2452598	Sulfate	107		P	90 - 110
2452883	Sulfate	104		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438501

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2452160	Ammonia-N	99.6	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P438294

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2452510	Kjeldahl Nitrogen	99.6	99.3	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438185

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2452200	NO2NO3-N	101	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P438323

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2452644	Total-P	100	101	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P438143

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2452401	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	65.7	68.5	P/P	50 - 150
2452401	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	54.4	50.8	P/P	29 - 155
2452401	Acetochlor	107	86.6	P/P	60 - 124
2452401	Alachlor	115	87.1	P/P	54 - 122
2452401	Ametryn	100	98.4	P/P	51 - 208
2452401	Atrazine Desethyl	54.2	46.6	P/P	13 - 124
2452401	Avobenzone	108	120	P/P	35 - 187
2452401	Azinphos Methyl	176	148	P/P	43 - 276
2452401	Azoxystrobin	82.3	77.2	P/P	52 - 300
2452401	Bromacil	47.3	52.4	P/P	44 - 134
2452401	Butylate	48.1	39.0	P/P	23 - 82.0
2452401	Caffeine	114	110	P/P	10 - 277
2452401	Carbophenothion	108	91.8	P/P	47 - 135
2452401	Carfentrazone Ethyl	105	92.8	P/P	46 - 147

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P438143

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2452401	Chlorfenapyr	92.8	76.6	P/P	43 - 114
2452401	Chlorpyrifos Ethyl	53.5	61.1	P/P	47 - 124
2452401	Chlorpyrifos Methyl	108	85.0	P/P	60 - 135
2452401	Coumaphos	94.2	118	P/P	10 - 222
2452401	Cyanazine	150	126	P/P	10 - 257
2452401	Cyprodinil	116	94.2	P/P	42 - 148
2452401	Dechlorane 602	87.9	90.6	P/P	14 - 133
2452401	Dechlorane 603	96.3	106	P/P	18 - 191
2452401	Dechlorane Plus	102	107	P/P	23 - 154
2452401	Demeton	99.9	76.9	P/P	41 - 137
2452401	Diazinon	96.3	90.8	P/P	64 - 139
2452401	Difenoconazole	66.9	63.9	P/P	46 - 254
2452401	Dimethenamid	85.0	80.5	P/P	47 - 117
2452401	Dimethomorph	134	122	P/P	14 - 255
2452401	Disulfoton	60.5	70.6	P/P	52 - 130
2452401	Dithiopyr	93.4	76.2	P/P	40 - 121
2452401	EPTC	58.5	55.8	P/P	19 - 78.0
2452401	Ethion	108	83.3	P/P	12 - 124
2452401	Ethoprop	78.2	71.0	P/P	68 - 144
2452401	Etridiazole	67.5	52.1	P/P	26 - 96.0
2452401	Fenamiphos	76.0	75.6	P/P	41 - 129
2452401	Fenbuconazole	71.1	87.9	P/P	26 - 169
2452401	Fipronil	92.5	83.7	P/P	46 - 145
2452401	Fipronil Desulfinyl	92.4	61.1	P/P	47 - 136
2452401	Fipronil Sulfide	77.9	71.0	P/P	41 - 127
2452401	Fipronil Sulfone	39.3	62.3	P/P	35 - 133
2452401	Fluazifop-P-butyl	92.1	84.8	P/P	46 - 131
2452401	Fludioxonil	81.1	78.2	P/P	51 - 124
2452401	Flumioxazin	68.3	70.3	P/P	10 - 289
2452401	Flutolanil	49.2	56.2	P/P	34 - 130
2452401	Fluxapyroxad	62.8	87.2	P/P	10 - 197
2452401	Fonofos	43.2	60.8	P/P	42 - 131
2452401	Hexabromobenzene	78.7	74.4	P/P	47 - 178
2452401	Hexazinone	93.2	85.9	P/P	64 - 125
2452401	Imazalil	50.2	57.1	P/P	37 - 252
2452401	Iprodione	51.5	59.6	P/P	34 - 265
2452401	Loratadine	99.6	100	P/P	20 - 231
2452401	Malathion	119	116	P/P	34 - 164
2452401	Metalaxyl	68.4	64.6	P/P	49 - 125
2452401	Metolachlor	91.3	77.1	P/P	54 - 125
2452401	Metribuzin	91.1	74.2	P/P	51 - 139
2452401	Mevinphos	53.4	67.3	P/P	46 - 130
2452401	Molinate	68.8	54.9	P/P	39 - 93.0
2452401	Myclobutanil	112	95.9	P/P	50 - 130
2452401	Naled	57.0	50.0	P/P	10 - 150
2452401	Napropamide	34.8	42.7	P/P	10 - 109
2452401	Norflurazon	83.1	61.8	P/P	36 - 134
2452401	Octinoxate	106	107	P/P	18 - 170
2452401	Oxadiazon	90.3	72.7	P/P	43 - 112
2452401	Oxybenzone	95.2	103	P/P	33 - 154
2452401	Oxyfluorfen	103	106	P/P	62 - 154
2452401	Parathion Ethyl	97.7	89.6	P/P	65 - 120

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P438143

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2452401	Parathion Methyl	141	109	P/P	77 - 185
2452401	PBB-153	56.2	54.1	P/P	23 - 193
2452401	PBDE-47	91.3	91.8	P/P	31 - 139
2452401	PBDE-99	67.2	65.8	P/P	24 - 138
2452401	Pendimethalin	98.4	102	P/P	50 - 146
2452401	Pentabromotoluene	86.3	80.3	P/P	54 - 152
2452401	Phenytoin	23.8	22.4	P/P	10 - 157
2452401	Phorate	159	119	P/P	54 - 161
2452401	Prodiamine	67.8	90.4	P/P	29 - 160
2452401	Prometon	92.2	91.8	P/P	38 - 145
2452401	Prometryn	111	96.2	P/P	32 - 151
2452401	Pronamide	119	99.4	P/P	61 - 140
2452401	Propanil	102	84.9	P/P	50 - 147
2452401	Propargite	49.3	47.2	P/P	10 - 190
2452401	Propiconazole	77.4	79.7	P/P	30 - 146
2452401	Pyraflufen Ethyl	105	87.2	P/P	30 - 147
2452401	Pyridaben	180	190	P/P	15 - 195
2452401	Pyriproxyfen	138	127	P/P	31 - 218
2452401	Simazine	89.4	79.3	P/P	45 - 139
2452401	Stirophos	15.7	18.5	P/P	10 - 134
2452401	Sulfentrazone	75.2	93.0	P/P	53 - 186
2452401	Tebuconazole	49.2	57.5	P/P	10 - 133
2452401	Terbufos	68.6	75.4	P/P	65 - 151
2452401	Terbuthylazine	89.6	91.8	P/P	62 - 117
2452401	Tetradecachloro-m-terphenyl	92.7	98.7	P/P	10 - 260
2452401	Thiobencarb	105	93.7	P/P	48 - 122
2452401	Tri-o-cresyl Phosphate	111	114	P/P	32 - 151
2452401	Triadimefon	74.2	55.8	P/P	46 - 124
2452401	Tris(1-chloro-2-propyl) phosphate (TCPP)	115	116	P/P	51 - 154
2452401	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	98.0	100	P/P	59 - 147
2452401	Tris(2-chloroethyl) phosphate (TCEP)	95.2	95.4	P/P	65 - 156

Reference Method: EPA 8270E
Batch ID: P438263

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2452356	PCB-1016	82.7	67.3	P/P	45 - 107
2452356	PCB-1260	80.7	102	P/P	40 - 112
2452652	Aldrin	65.6	64.0	P/P	24 - 81.0
2452652	Alpha-BHC	65.8	72.6	P/P	65 - 110
2452652	Alpha-Chlordane	50.3	67.2	P/P	43 - 119
2452652	Beta-BHC	50.9	61.4	F/P	54 - 165
2452652	Beta-Cyfluthrin	60.3	57.0	P/P	27 - 165
2452652	Bifenthrin	47.1	39.1	P/P	17 - 117
2452652	Chlorothalonil	73.3	59.8	P/P	10 - 255
2452652	Cis-Nonachlor	57.7	89.7	P/P	34 - 98.0
2452652	Cypermethrin	40.4	35.2	P/P	25 - 143
2452652	Dacthal	51.4	68.8	F/P	55 - 139
2452652	DDD-p,p'	65.7	83.2	P/P	30 - 109
2452652	DDE-p,p'	66.6	79.4	P/P	35 - 106
2452652	DDT-p,p'	55.9	57.0	P/P	41 - 101
2452652	Delta-BHC	64.1	66.2	P/P	58 - 165

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P438263

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2452652	Deltamethrin	80.9	69.8	P/P	10 - 194
2452652	Dichlobenil	46.8	68.0	P/P	22 - 114
2452652	Dicofol	78.2	78.3	P/P	17 - 133
2452652	Dieldrin	65.3	73.2	P/P	45 - 129
2452652	Endosulfan I	51.3	67.4	P/P	49 - 104
2452652	Endosulfan II	57.7	69.2	P/P	37 - 117
2452652	Endosulfan Sulfate	50.8	70.8	P/P	38 - 128
2452652	Endrin	59.9	74.5	P/P	35 - 116
2452652	Endrin Aldehyde	42.1	55.6	P/P	19 - 108
2452652	Endrin Ketone	41.6	60.0	F/P	44 - 134
2452652	Esfenvalerate	75.1	67.2	P/P	27 - 176
2452652	Ethalfluralin	85.1	80.9	P/P	49 - 100
2452652	Fenpropathrin	51.8	40.4	P/P	34 - 117
2452652	Gamma-BHC	66.3	74.1	P/P	59 - 129
2452652	Gamma-Chlordane	76.2	84.1	P/P	33 - 107
2452652	Heptachlor	45.7	39.0	P/P	37 - 94.0
2452652	Heptachlor Epoxide	67.8	65.6	P/P	38 - 118
2452652	Hexachlorobenzene	60.8	75.2	P/P	35 - 97.0
2452652	Kepone	168	157	P/P	10 - 221
2452652	Lambda-Cyhalothrin	76.0	88.1	P/P	23 - 190
2452652	Methoprene	102	85.6	P/P	21 - 109
2452652	Methoxychlor	60.4	58.3	P/P	46 - 118
2452652	MGK-264	63.5	59.8	P/P	39 - 122
2452652	Mirex	76.1	79.8	P/P	25 - 90.0
2452652	Oxychlordane	46.4	43.5	P/P	42 - 100
2452652	Permethrin	66.1	67.4	P/P	33 - 181
2452652	Phenothrin	65.9	70.2	P/P	12 - 125
2452652	Piperonyl Butoxide	80.2	122	P/P	10 - 178
2452652	Prallethrin	49.5	62.0	P/P	24 - 122
2452652	Tau-Fluvalinate	80.5	75.5	P/P	13 - 151
2452652	Tetramethrin	91.4	86.5	P/P	16 - 172
2452652	Trans-Nonachlor	61.9	68.6	P/P	39 - 100
2452652	Triclosan Methyl	46.6	48.4	P/P	43 - 110
2452652	Trifluralin	55.0	52.1	P/P	45 - 94.0

Reference Method: EPA 8276
Batch ID: P438263

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2452356	Chlordane	58.2	72.3	P/P	43 - 123
2452356	Toxaphene	60.4	75.3	P/P	27 - 156

Reference Method: EPA 8321B
Batch ID: P437954

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2452354	3-Hydroxycarbofuran	77.2	84.8	P/P	40 - 150
2452354	Aldicarb	41.7	47.0	P/P	30 - 150
2452354	Aldicarb Sulfone	90.9	100	P/P	40 - 150
2452354	Aldicarb Sulfoxide	62.4	71.5	P/P	40 - 150
2452354	Carbaryl	56.3	62.2	P/P	40 - 150
2452354	Carbofuran	57.6	57.4	P/P	40 - 150

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P437954

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2452354	Methiocarb	61.0	64.2	P/P	40 - 150
2452354	Methomyl	71.8	78.9	P/P	40 - 150
2452354	Oxamyl	80.3	89.8	P/P	40 - 150
2452354	Propoxur	55.8	55.8	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P438082

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2452355	Acesulfame K	112	95.6	P/P	40 - 150
2452355	AMPA	96.0	97.6	P/P	40 - 160
2452355	Endothall	106	103	P/P	40 - 160
2452355	Glufosinate	96.0	104	P/P	40 - 160
2452355	Glyphosate	97.1	96.0	P/P	40 - 160
2452355	Sucralose	105	91.2	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P438135

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2452547	2,4-D	93.3	94.6	P/P	40 - 150
2452547	2,4,5-T	85.2	79.2	P/P	40 - 150
2452547	Acetaminophen	78.4	78.3	P/P	30 - 150
2452547	Acetamiprid	66.5	66.0	P/P	40 - 150
2452547	Afidopyropen	83.0	76.1	P/P	30 - 150
2452547	Benzovindiflupyr	82.6	81.4	P/P	40 - 150
2452547	Carbamazepine	55.7	54.9	P/P	40 - 150
2452547	Clothianidin	70.1	70.7	P/P	40 - 150
2452547	Dinotefuran	56.0	55.6	P/P	40 - 150
2452547	Diuron	57.6	57.3	P/P	40 - 150
2452547	Fenuron	57.0	56.8	P/P	40 - 150
2452547	Fluridone	87.5	81.3	P/P	40 - 150
2452547	Hydrocodone	58.4	59.5	P/P	40 - 150
2452547	Ibuprofen	70.6	67.4	P/P	40 - 150
2452547	Imazapyr	90.0	82.7	P/P	40 - 150
2452547	Imidacloprid	99.2	97.3	P/P	40 - 150
2452547	Linuron	64.1	65.3	P/P	40 - 150
2452547	Mandestrobin	79.3	77.6	P/P	40 - 150
2452547	MCPP	88.0	85.4	P/P	40 - 150
2452547	Naproxen	84.9	70.7	P/P	40 - 150
2452547	Primidone	74.4	75.8	P/P	40 - 150
2452547	Pyraclostrobin	80.6	77.9	P/P	40 - 150
2452547	Silvex	101	92.9	P/P	40 - 150
2452547	Thiamethoxam	63.5	61.9	P/P	40 - 150
2452547	Tolfenpyrad	52.4	53.7	P/P	30 - 150
2452547	Triclopyr	89.2	81.6	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P438552

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2454084	Fluoride	103	99.8	P/P	94 - 106

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P438442

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2452508	Organic Carbon	87.6	90.7	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P438139

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2452600	Color (true)	2.19	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P438142

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2452502	Turbidity	7.27	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438359

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2452598	Chloride	1.15	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438362

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2452598	Sulfate	0.267	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438501

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2452160	Ammonia-N	1.69	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P438294

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2452510	Kjeldahl Nitrogen	0.212	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438185

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2452200	NO2NO3-N	2.14	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P438323

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2452644	Total-P	0.896	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P438143

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2452401	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	4.18	Spike	P	0 - 30
2452401	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	6.83	Spike	P	0 - 35
2452401	Acetochlor	21.2	Spike	P	0 - 28
2452401	Alachlor	27.3	Spike	P	0 - 30
2452401	Ametryn	1.81	Spike	P	0 - 32
2452401	Atrazine	1.75	Spike	P	0 - 33
2452401	Atrazine Desethyl	9.79	Spike	P	0 - 36
2452401	Avobenzone	10.1	Spike	P	0 - 35
2452401	Azinphos Methyl	17.3	Spike	P	0 - 62
2452401	Azoxystrobin	6.18	Spike	P	0 - 39
2452401	Bromacil	10.2	Spike	P	0 - 33
2452401	Butylate	21.0	Spike	P	0 - 51
2452401	Caffeine	2.57	Spike	P	0 - 100
2452401	Carbophenothion	16.0	Spike	P	0 - 34
2452401	Carfentrazone Ethyl	12.5	Spike	P	0 - 33
2452401	Chlorfenapyr	19.0	Spike	P	0 - 28
2452401	Chlorpyrifos Ethyl	13.2	Spike	P	0 - 31
2452401	Chlorpyrifos Methyl	24.1	Spike	P	0 - 27
2452401	Coumaphos	22.4	Spike	P	0 - 62
2452401	Cyanazine	17.2	Spike	P	0 - 48
2452401	Cyprodinil	21.0	Spike	P	0 - 29
2452401	Dechlorane 602	3.01	Spike	P	0 - 60
2452401	Dechlorane 603	9.28	Spike	P	0 - 40
2452401	Dechlorane Plus	4.62	Spike	P	0 - 38
2452401	Demeton	26.0	Spike	P	0 - 33
2452401	Diazinon	5.87	Spike	P	0 - 32
2452401	Difenoconazole	4.53	Spike	P	0 - 71
2452401	Dimethenamid	5.46	Spike	P	0 - 60
2452401	Dimethomorph	9.46	Spike	P	0 - 61
2452401	Disulfoton	15.4	Spike	P	0 - 30
2452401	Dithiopyr	20.2	Spike	P	0 - 28
2452401	EPTC	4.61	Spike	P	0 - 56
2452401	Ethion	25.9	Spike	P	0 - 79
2452401	Ethoprop	9.59	Spike	P	0 - 31
2452401	Etridiazole	25.7	Spike	P	0 - 43
2452401	Fenamiphos	0.469	Spike	P	0 - 43
2452401	Fenbuconazole	21.1	Spike	P	0 - 79
2452401	Fipronil	9.52	Spike	P	0 - 46
2452401	Fipronil Desulfinyl	34.7	Spike	P	0 - 36
2452401	Fipronil Sulfide	8.79	Spike	P	0 - 34
2452401	Fipronil Sulfone	35.0	Spike	P	0 - 47
2452401	Fluazifop-P-butyl	8.27	Spike	P	0 - 38
2452401	Fludioxonil	3.70	Spike	P	0 - 29
2452401	Flumioxazin	2.30	Spike	P	0 - 63
2452401	Flutolanil	13.2	Spike	P	0 - 36
2452401	Fluxapyroxad	27.9	Spike	P	0 - 65
2452401	Fonofos	33.8	Spike	P	0 - 35
2452401	Hexabromobenzene	5.58	Spike	P	0 - 41
2452401	Hexazinone	8.21	Spike	P	0 - 31
2452401	Imazalil	12.8	Spike	P	0 - 52
2452401	Iprodione	14.6	Spike	P	0 - 49

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P438143

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2452401	Loratadine	0.636	Spike	P	0 - 59
2452401	Malathion	2.16	Spike	P	0 - 77
2452401	Metalaxyl	5.71	Spike	P	0 - 76
2452401	Metolachlor	15.3	Spike	P	0 - 29
2452401	Metribuzin	20.4	Spike	P	0 - 51
2452401	Mevinphos	23.1	Spike	P	0 - 31
2452401	Molinate	22.4	Spike	P	0 - 39
2452401	Myclobutanil	15.7	Spike	P	0 - 34
2452401	Naled	13.2	Spike	P	0 - 37
2452401	Napropamide	20.4	Spike	P	0 - 100
2452401	Norflurazon	29.4	Spike	P	0 - 54
2452401	Octinoxate	0.584	Spike	P	0 - 35
2452401	Oxybenzone	8.21	Spike	P	0 - 35
2452401	Oxyfluorfen	3.71	Spike	P	0 - 28
2452401	Parathion Ethyl	8.66	Spike	P	0 - 31
2452401	Parathion Methyl	25.4	Spike	P	0 - 29
2452401	PBB-153	3.84	Spike	P	0 - 49
2452401	PBDE-47	0.573	Spike	P	0 - 36
2452401	PBDE-99	2.24	Spike	P	0 - 46
2452401	Pendimethalin	3.93	Spike	P	0 - 31
2452401	Pentabromotoluene	7.23	Spike	P	0 - 16
2452401	Phenytoin	5.80	Spike	P	0 - 100
2452401	Phorate	28.1	Spike	P	0 - 36
2452401	Prodiamine	28.6	Spike	P	0 - 68
2452401	Prometon	0.504	Spike	P	0 - 35
2452401	Prometryn	14.7	Spike	P	0 - 33
2452401	Pronamide	17.6	Spike	P	0 - 24
2452401	Propanil	17.8	Spike	P	0 - 28
2452401	Propargite	4.40	Spike	P	0 - 53
2452401	Propiconazole	2.87	Spike	P	0 - 44
2452401	Pyraflufen Ethyl	18.3	Spike	P	0 - 61
2452401	Pyridaben	5.60	Spike	P	0 - 43
2452401	Pyriproxyfen	8.09	Spike	P	0 - 82
2452401	Simazine	12.0	Spike	P	0 - 29
2452401	Stirophos	16.6	Spike	P	0 - 100
2452401	Sulfentrazone	21.1	Spike	P	0 - 64
2452401	Tebuconazole	15.4	Spike	P	0 - 76
2452401	Terbufos	9.50	Spike	P	0 - 29
2452401	Terbuthylazine	2.46	Spike	P	0 - 28
2452401	Tetradecachloro-m-terphenyl	6.24	Spike	P	0 - 42
2452401	Thiobencarb	11.0	Spike	P	0 - 26
2452401	Tri-o-cresyl Phosphate	2.31	Spike	P	0 - 24
2452401	Triadimefon	28.4	Spike	P	0 - 40
2452401	Tris(1-chloro-2-propyl) phosphate (TCPP)	0.612	Spike	P	0 - 30
2452401	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	2.38	Spike	P	0 - 22
2452401	Tris(2-chloroethyl) phosphate (TCEP)	0.188	Spike	P	0 - 15

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P438263

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2452356	PCB-1016	20.5	Spike	P	0 - 25
2452356	PCB-1260	23.1	Spike	P	0 - 30
2452652	Aldrin	2.45	Spike	P	0 - 41
2452652	Alpha-BHC	9.89	Spike	P	0 - 25
2452652	Alpha-Chlordane	28.7	Spike	P	0 - 32
2452652	Beta-BHC	18.6	Spike	P	0 - 33
2452652	Beta-Cyfluthrin	5.64	Spike	P	0 - 43
2452652	Bifenthrin	18.7	Spike	P	0 - 52
2452652	Chlorothalonil	20.4	Spike	P	0 - 82
2452652	Cis-Nonachlor	43.4	Spike	F	0 - 33
2452652	Cypermethrin	13.6	Spike	P	0 - 51
2452652	Dacthal	28.9	Spike	F	0 - 27
2452652	DDD-p,p'	23.4	Spike	P	0 - 39
2452652	DDE-p,p'	17.6	Spike	P	0 - 31
2452652	DDT-p,p'	1.36	Spike	P	0 - 29
2452652	Delta-BHC	3.29	Spike	P	0 - 35
2452652	Deltamethrin	14.7	Spike	P	0 - 100
2452652	Dichlobenil	37.0	Spike	P	0 - 40
2452652	Dicofol	0.155	Spike	P	0 - 37
2452652	Dieldrin	11.5	Spike	P	0 - 27
2452652	Endosulfan I	27.1	Spike	F	0 - 23
2452652	Endosulfan II	18.1	Spike	P	0 - 34
2452652	Endosulfan Sulfate	32.9	Spike	P	0 - 36
2452652	Endrin	21.7	Spike	P	0 - 45
2452652	Endrin Aldehyde	27.7	Spike	P	0 - 76
2452652	Endrin Ketone	36.2	Spike	P	0 - 43
2452652	Esfenvalerate	11.1	Spike	P	0 - 51
2452652	Ethalfluralin	5.05	Spike	P	0 - 22
2452652	Fenpropathrin	24.6	Spike	P	0 - 49
2452652	Gamma-BHC	11.0	Spike	P	0 - 28
2452652	Gamma-Chlordane	9.88	Spike	P	0 - 40
2452652	Heptachlor	15.8	Spike	P	0 - 29
2452652	Heptachlor Epoxide	3.27	Spike	P	0 - 33
2452652	Hexachlorobenzene	21.1	Spike	P	0 - 36
2452652	Kepone	7.30	Spike	P	0 - 85
2452652	Lambda-Cyhalothrin	14.8	Spike	P	0 - 55
2452652	Methoprene	17.5	Spike	P	0 - 53
2452652	Methoxychlor	3.64	Spike	P	0 - 50
2452652	MGK-264	5.99	Spike	P	0 - 43
2452652	Mirex	4.79	Spike	P	0 - 40
2452652	Oxychlordane	6.55	Spike	P	0 - 31
2452652	Permethrin	1.93	Spike	P	0 - 50
2452652	Phenothrin	6.24	Spike	P	0 - 58
2452652	Piperonyl Butoxide	37.1	Spike	P	0 - 100
2452652	Prallethrin	22.5	Spike	P	0 - 39
2452652	Tau-Fluvalinate	6.42	Spike	P	0 - 54
2452652	Tetramethrin	5.42	Spike	P	0 - 51
2452652	Trans-Nonachlor	10.2	Spike	P	0 - 39
2452652	Triclosan Methyl	3.77	Spike	P	0 - 31
2452652	Trifluralin	5.43	Spike	P	0 - 22

Quality Assurance Report
Precision

Reference Method: EPA 8276
Batch ID: P438263

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2452356	Chlordane	21.6	Spike	P	0 - 28
2452356	Toxaphene	22.0	Spike	P	0 - 27

Reference Method: EPA 8321B
Batch ID: P437954

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2452354	3-Hydroxycarbofuran	9.34	Spike	P	0 - 30
2452354	Aldicarb	12.0	Spike	P	0 - 30
2452354	Aldicarb Sulfone	9.74	Spike	P	0 - 30
2452354	Aldicarb Sulfoxide	13.5	Spike	P	0 - 30
2452354	Carbaryl	9.88	Spike	P	0 - 30
2452354	Carbofuran	0.324	Spike	P	0 - 30
2452354	Methiocarb	5.13	Spike	P	0 - 30
2452354	Methomyl	9.43	Spike	P	0 - 30
2452354	Oxamyl	11.2	Spike	P	0 - 30
2452354	Propoxur	0.0126	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P438082

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2452355	Acesulfame K	15.6	Spike	P	0 - 30
2452355	AMPA	1.66	Spike	P	0 - 30
2452355	Endothall	2.88	Spike	P	0 - 30
2452355	Glufosinate	7.87	Spike	P	0 - 30
2452355	Glyphosate	1.14	Spike	P	0 - 30
2452355	Sucralose	13.5	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P438135

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2452547	2,4-D	0.800	Spike	P	0 - 30
2452547	2,4,5-T	7.33	Spike	P	0 - 30
2452547	Acetaminophen	0.116	Spike	P	0 - 30
2452547	Acetamiprid	0.679	Spike	P	0 - 30
2452547	Afidopyropen	8.69	Spike	P	0 - 30
2452547	Bentazon	1.49	Spike	P	0 - 30
2452547	Benzovindiflupyr	1.38	Spike	P	0 - 30
2452547	Carbamazepine	1.51	Spike	P	0 - 30
2452547	Clothianidin	0.898	Spike	P	0 - 30
2452547	Dinotefuran	0.745	Spike	P	0 - 30
2452547	Diuron	0.535	Spike	P	0 - 30
2452547	Fenuron	0.348	Spike	P	0 - 30
2452547	Fluridone	2.28	Spike	P	0 - 30
2452547	Hydrocodone	1.94	Spike	P	0 - 30
2452547	Ibuprofen	4.54	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P438135

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2452547	Imazapyr	5.15	Spike	P	0 - 30
2452547	Imidacloprid	1.70	Spike	P	0 - 30
2452547	Linuron	1.79	Spike	P	0 - 30
2452547	Mandestrobin	2.13	Spike	P	0 - 30
2452547	MCPP	2.48	Spike	P	0 - 30
2452547	Naproxen	18.2	Spike	P	0 - 30
2452547	Primidone	1.85	Spike	P	0 - 30
2452547	Pyraclostrobin	3.35	Spike	P	0 - 30
2452547	Silvex	8.37	Spike	P	0 - 30
2452547	Thiamethoxam	2.57	Spike	P	0 - 30
2452547	Tolfenpyrad	2.56	Spike	P	0 - 30
2452547	Triclopyr	8.87	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P438223

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2452511	Total Alkalinity	0.0800	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P438383

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2452190	TDS	4.66	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P438552

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2454084	Fluoride	1.43	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2011
Batch ID: P438442

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2452508	Organic Carbon	3.18	Spike	P	0 - 20

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

Quality Assurance Report
Surrogates

Lab Sample ID: 2452650
Field Sample ID: G2SD0053

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	45.0	P	30 - 160

Lab Sample ID: 2452651
Field Sample ID: G2SD0053

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	86.3	P	30 - 160
EPA 8321B	Acetaminophen-d4	74.3	P	30 - 160
EPA 8321B	Carbamazepine-d10	46.2	P	30 - 160
EPA 8321B	Diuron-d6	41.9	P	30 - 160
EPA 8321B	Endothall-d6	112	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	62.1	P	30 - 160
EPA 8321B	Ibuprofen-d3	58.3	P	30 - 160
EPA 8321B	Primidone-d5	52.0	P	30 - 160
EPA 8321B	Sucralose-d6	91.3	P	30 - 160

Lab Sample ID: 2452652
Field Sample ID: G3SD0103

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	81.7	P	37 - 129
EPA 8270E	Decachlorobiphenyl	39.8	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	71.7	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	60.9	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	75.3	P	28 - 102
EPA 8276	PCNB	88.7	P	49 - 115

Lab Sample ID: 2452653
Field Sample ID: G2SD0053

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	80.8	P	37 - 129
EPA 8270E	Decachlorobiphenyl	41.0	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	65.3	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	60.9	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	68.9	P	28 - 102
EPA 8276	PCNB	91.1	P	49 - 115

Lab Sample ID: 2452654
Field Sample ID: G2SD0053

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	70.2	P	20 - 200
EPA 8270E	Simazine-d10	84.8	P	58 - 137
EPA 8270E	Terbufos-d10	69.8	P	50 - 134
EPA 8270E	Terphenyl-d14	87.2	P	44 - 134

Quality Assurance Report
Calibration Verification

Reference Method: DEP SOP: NU-094-1
Run ID: A122870
Included Lab Sample IDs: 2452643

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.4	100	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A122871
Included Lab Sample IDs: 2452643

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

Reference Method: EPA 8321B
Run ID: A122875
Included Lab Sample IDs: 2452651

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	123	111	P/P	60 - 160
Sucralose	103	92.5	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A122878
Included Lab Sample IDs: 2452651

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	99.9	102	P/P	60 - 160
Endothall	98.1	109	P/P	60 - 160
Glufosinate	104	97.9	P/P	60 - 160
Glyphosate	98.7	100	P/P	60 - 160

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A122891
Included Lab Sample IDs: 2452644

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

Reference Method: EPA 8321B
Run ID: A122897
Included Lab Sample IDs: 2452650

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	105	103	P/P	60 - 150
Aldicarb	100	105	P/P	60 - 150
Aldicarb Sulfone	107	110	P/P	50 - 150
Aldicarb Sulfoxide	107	110	P/P	50 - 150
Carbaryl	109	101	P/P	60 - 150
Carbofuran	107	111	P/P	50 - 150
Methiocarb	104	101	P/P	50 - 150
Methomyl	105	103	P/P	50 - 150
Oxamyl	109	109	P/P	50 - 150
Propoxur	111	110	P/P	50 - 150

Quality Assurance Report
Calibration Verification

Reference Method: SM 2320 B-2011
Run ID: A122907
Included Lab Sample IDs: 2452643

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	95.7	98.1	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A122949
Included Lab Sample IDs: 2452643

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A122958
Included Lab Sample IDs: 2452644

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	105	98.6	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A122960
Included Lab Sample IDs: 2452651

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	108	103	P/P	50 - 150
2,4,5-T	99.7	97.5	P/P	50 - 150
Acetaminophen	110	114	P/P	60 - 160
Acetamiprid	108	108	P/P	50 - 150
Afidopyropen	95.2	100	P/P	50 - 150
Bentazon	89.8	90.7	P/P	50 - 160
Benzovindiflupyr	105	103	P/P	50 - 150
Carbamazepine	109	109	P/P	60 - 150
Clothianidin	99.6	99.7	P/P	60 - 150
Dinotefuran	114	110	P/P	50 - 150
Diuron	104	112	P/P	60 - 160
Fenuron	105	104	P/P	60 - 150
Fluridone	113	115	P/P	60 - 160
Hydrocodone	116	113	P/P	60 - 150
Ibuprofen	83.8	88.4	P/P	50 - 160
Imazapyr	103	108	P/P	50 - 150
Imidacloprid	96.6	96.1	P/P	60 - 150
Linuron	109	103	P/P	60 - 150
Mandestrobin	99.3	106	P/P	50 - 150
MCPP	101	106	P/P	50 - 150
Naproxen	122	112	P/P	50 - 160
Primidone	103	97.3	P/P	60 - 150
Pyraclostrobin	106	105	P/P	60 - 150
Silvex	93.8	93.2	P/P	50 - 150
Thiamethoxam	109	108	P/P	50 - 150
Tolfenpyrad	97.3	99.5	P/P	60 - 150
Triclopyr	99.0	103	P/P	50 - 150

Quality Assurance Report
Calibration Verification

Reference Method: SM 5310 B-2011
Run ID: A122996
Included Lab Sample IDs: 2452644

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	92.6	94.7	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A123011
Included Lab Sample IDs: 2452644

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.0	100	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A123027
Included Lab Sample IDs: 2452644

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.8	97.9	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A123044
Included Lab Sample IDs: 2452654

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	97.7		P	80 - 120
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	93.7		P	80 - 120
Avobenzone	94.4		P	80 - 120
Dechlorane 602	97.8		P	80 - 120
Dechlorane 603	104		P	80 - 120
Dechlorane Plus	103		P	80 - 120
Hexabromobenzene	92.1		P	80 - 120
Octinoxate	98.6		P	80 - 120
Oxybenzone	99.0		P	80 - 120
PBB-153	85.7		P	80 - 120
PBDE-47	93.6		P	80 - 120
PBDE-99	90.8		P	80 - 120
Pentabromotoluene	100		P	80 - 120
Tetradecachloro-m-terphenyl	89.8		P	80 - 120
Tri-o-cresyl Phosphate	95.7		P	80 - 120
Tris(1-chloro-2-propyl) phosphate (TCPP)	101		P	80 - 120
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	99.2		P	80 - 120
Tris(2-chloroethyl) phosphate (TCEP)	93.9		P	80 - 120

Reference Method: SM 4500-F- C-2011
Run ID: A123047
Included Lab Sample IDs: 2452643

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	105	106	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A123125
Included Lab Sample IDs: 2452652, 2452653

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	97.8		P	80 - 120
PCB-1260	102		P	80 - 120

Reference Method: EPA 8270E
Run ID: A123187
Included Lab Sample IDs: 2452652, 2452653

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	107		P	80 - 120
Alpha-BHC	94.4		P	80 - 120
Alpha-Chlordane	114		P	80 - 120
Beta-BHC	86.6		P	80 - 120
Beta-Cyfluthrin	80.4		P	80 - 120
Bifenthrin	110		P	80 - 120
Chlorothalonil	94.3		P	80 - 120
Cis-Nonachlor	95.3		P	80 - 120
Cypermethrin	106		P	80 - 120
Dacthal	116		P	80 - 120
DDD-p,p'	98.8		P	80 - 120
DDE-p,p'	103		P	80 - 120
DDT-p,p'	107		P	80 - 120
Delta-BHC	96.1		P	80 - 120
Deltamethrin	83.9		P	80 - 120
Dichlobenil	84.4		P	80 - 120
Dicofol	96.9		P	80 - 120
Dieldrin	92.6		P	80 - 120
Endosulfan I	101		P	80 - 120
Endosulfan II	83.0		P	80 - 120
Endosulfan Sulfate	97.5		P	80 - 120
Endrin	83.7		P	80 - 120
Endrin Aldehyde	97.2		P	80 - 120
Endrin Ketone	79.4*		F	80 - 120
Esfenvalerate	83.5		P	80 - 120
Ethalfluralin	90.8		P	80 - 120
Fenpropathrin	109		P	80 - 120
Gamma-BHC	107		P	80 - 120
Gamma-Chlordane	106		P	80 - 120
Heptachlor	123*		F	80 - 120
Heptachlor Epoxide	111		P	80 - 120
Hexachlorobenzene	96.7		P	80 - 120
Kepone	80.2		P	80 - 120
Lambda-Cyhalothrin	88.4		P	80 - 120
Methoprene	117		P	80 - 120
Methoxychlor	85.6		P	80 - 120
MGK-264	94.1		P	80 - 120
Mirex	108		P	80 - 120
Oxychlordane	127*		F	80 - 120
Permethrin	82.7		P	80 - 120
Phenothrin	81.1		P	80 - 120
Piperonyl Butoxide	88.6		P	80 - 120
Prallethrin	98.6		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A123187
Included Lab Sample IDs: 2452652, 2452653

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Tau-Fluvalinate	91.9		P	80 - 120
Tetramethrin	94.2		P	80 - 120
Trans-Nonachlor	108		P	80 - 120
Triclosan Methyl	120		P	80 - 120
Trifluralin	119		P	80 - 120

Reference Method: EPA 8270E
Run ID: A123248
Included Lab Sample IDs: 2452654

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	92.1		P	80 - 120
Alachlor	94.5		P	80 - 120
Ametryn	92.7		P	80 - 120
Atrazine	93.6		P	80 - 120
Atrazine Desethyl	92.9		P	80 - 120
Azinphos Methyl	102		P	80 - 120
Azoxystrobin	97.1		P	80 - 120
Bromacil	100		P	80 - 120
Butylate	88.2		P	80 - 120
Caffeine	92.2		P	80 - 120
Carbophenothion	110		P	80 - 120
Carfentrazone Ethyl	110		P	80 - 120
Chlorfenapyr	94.5		P	80 - 120
Chlorpyrifos Ethyl	93.4		P	80 - 120
Chlorpyrifos Methyl	89.7		P	80 - 120
Coumaphos	104		P	80 - 120
Cyanazine	91.2		P	80 - 120
Cyprodinil	105		P	80 - 120
Demeton	104		P	80 - 120
Diazinon	95.7		P	80 - 120
Difenoconazole	102		P	80 - 120
Dimethenamid	90.7		P	80 - 120
Dimethomorph	109		P	80 - 120
Disulfoton	90.4		P	80 - 120
Dithiopyr	93.9		P	80 - 120
EPTC	99.7		P	80 - 120
Ethion	94.6		P	80 - 120
Ethoprop	103		P	80 - 120
Etridiazole	98.9		P	80 - 120
Fenamiphos	99.6		P	80 - 120
Fenbuconazole	99.4		P	80 - 120
Fipronil	90.9		P	80 - 120
Fipronil Desulfinyl	86.6		P	80 - 120
Fipronil Sulfide	104		P	80 - 120
Fipronil Sulfone	94.7		P	80 - 120
Fluazifop-P-butyl	93.2		P	80 - 120
Fludioxonil	97.7		P	80 - 120
Flumioxazin	104		P	80 - 120
Flutolanil	98.1		P	80 - 120
Fluxapyroxad	117		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A123248
Included Lab Sample IDs: 2452654

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fonofos	101		P	80 - 120
Hexazinone	94.0		P	80 - 120
Imazalil	90.8		P	80 - 120
Iprodione	93.9		P	80 - 120
Loratadine	95.6		P	80 - 120
Malathion	95.9		P	80 - 120
Metalaxyl	90.1		P	80 - 120
Metolachlor	94.5		P	80 - 120
Metribuzin	97.9		P	80 - 120
Mevinphos	89.5		P	80 - 120
Molinate	95.0		P	80 - 120
Myclobutanil	95.7		P	80 - 120
Naled	107		P	80 - 120
Napropamide	99.7		P	80 - 120
Norflurazon	119		P	80 - 120
Oxadiazon	113		P	80 - 120
Oxyfluorfen	91.4		P	80 - 120
Parathion Ethyl	113		P	80 - 120
Parathion Methyl	91.0		P	80 - 120
Pendimethalin	116		P	80 - 120
Phenytoin	102		P	80 - 120
Phorate	118		P	80 - 120
Prodiamine	102		P	80 - 120
Prometon	103		P	80 - 120
Prometryn	89.0		P	80 - 120
Pronamide	103		P	80 - 120
Propanil	85.5		P	80 - 120
Propargite	99.0		P	80 - 120
Propiconazole	114		P	80 - 120
Pyraflufen Ethyl	101		P	80 - 120
Pyridaben	98.8		P	80 - 120
Pyriproxyfen	103		P	80 - 120
Simazine	88.1		P	80 - 120
Stirophos	78.9*		F	80 - 120
Sulfentrazone	102		P	80 - 120
Tebuconazole	108		P	80 - 120
Terbufos	104		P	80 - 120
Terbuthylazine	107		P	80 - 120
Thiobencarb	91.3		P	80 - 120
Triadimefon	94.7		P	80 - 120

Reference Method: EPA 8276
Run ID: A123276
Included Lab Sample IDs: 2452652, 2452653

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	102		P	80 - 120
Toxaphene	104		P	80 - 120

Quality Assurance Report
Calibration Verification

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

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	SMP	MS
DEP SOP: NU-094-1	Color (true)	99.2				2.19	
EPA 180.1 Rev. 2.0	Turbidity	103				7.27	
EPA 300.0 Rev. 2.1	Chloride	101	104	98.5		1.15	
	Sulfate	101	107	104		0.267	
EPA 350.1 Rev. 2.0	Ammonia-N	96.0	99.6	102			1.69
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.3	99.6	99.3			0.212
EPA 353.2 Rev. 2.0	NO2NO3-N	100	101	104			2.14
EPA 365.1 Rev. 2.0	Total-P	105	100	101			0.896
EPA 8270E	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	61.7	68.5	65.7			4.18
	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	31.7	50.8	54.4			6.83
	Acetochlor	89.5	107	86.6			21.2
	Alachlor	100	115	87.1			27.3
	Aldrin	47.0	65.6	64.0			2.45
	Alpha-BHC	72.9	65.8	72.6			9.89
	Alpha-Chlordane	115	50.3	67.2			28.7
	Ametryn	108	100	98.4			1.81
	Atrazine	81.1					1.75
	Atrazine Desethyl	57.8	54.2	46.6			9.79
	Avobenzone	83.6	108	120			10.1
	Azinphos Methyl	162	176	148			17.3
	Azoxystrobin	82.7	82.3	77.2			6.18
	Beta-BHC	96.1	50.9	61.4			18.6
	Beta-Cyfluthrin	55.4	60.3	57.0			5.64
	Bifenthrin	41.7	47.1	39.1			18.7
	Bromacil	51.3	47.3	52.4			10.2
	Butylate	40.7	48.1	39.0			21.0
	Caffeine	108	114	110			2.57
	Carbophenothion	94.5	108	91.8			16.0
	Carfentrazone Ethyl	101	105	92.8			12.5
	Chlorfenapyr	75.5	92.8	76.6			19.0
	Chlorothalonil	64.6	73.3	59.8			20.4
	Chlorpyrifos Ethyl	64.1	53.5	61.1			13.2
	Chlorpyrifos Methyl	98.6	108	85.0			24.1
	Cis-Nonachlor	56.1	57.7	89.7			43.4
	Coumaphos	94.5	94.2	118			22.4
	Cyanazine	129	150	126			17.2
	Cypermethrin	46.1	40.4	35.2			13.6
	Cyprodinil	107	116	94.2			21.0
	Dacthal	87.4	51.4	68.8			28.9
	DDD-p,p'	58.0	65.7	83.2			23.4
	DDE-p,p'	63.6	66.6	79.4			17.6
	DDT-p,p'	83.7	55.9	57.0			1.36
	Dechlorane 602	78.9	90.6	87.9			3.01
	Dechlorane 603	89.2	106	96.3			9.28
	Dechlorane Plus	98.1	107	102			4.62
	Delta-BHC	106	64.1	66.2			3.29
	Deltamethrin	53.7	80.9	69.8			14.7
	Demeton	84.2	99.9	76.9			26.0
	Diazinon	105	96.3	90.8			5.87
	Dichlobenil	85.8	46.8	68.0			37.0
	Dicofol	78.7	78.2	78.3			0.155

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8270E	Dieldrin	57.0	65.3	73.2			11.5
	Difenoconazole	70.3	66.9	63.9			4.53
	Dimethenamid	78.2	85.0	80.5			5.46
	Dimethomorph	126	134	122			9.46
	Disulfoton	67.8	60.5	70.6			15.4
	Dithiopyr	89.5	93.4	76.2			20.2
	Endosulfan I	91.8	51.3	67.4			27.1
	Endosulfan II	60.5	57.7	69.2			18.1
	Endosulfan Sulfate	75.2	50.8	70.8			32.9
	Endrin	59.6	59.9	74.5			21.7
	Endrin Aldehyde	60.7	42.1	55.6			27.7
	Endrin Ketone	58.4	41.6	60.0			36.2
	EPTC	47.5	58.5	55.8			4.61
	Esfenvalerate	65.9	75.1	67.2			11.1
	Ethalfluralin	101	85.1	80.9			5.05
	Ethion	80.7	108	83.3			25.9
	Ethoprop	71.0	78.2	71.0			9.59
	Etridiazole	58.1	67.5	52.1			25.7
	Fenamiphos	75.2	76.0	75.6			0.469
	Fenbuconazole	61.3	71.1	87.9			21.1
	Fenpropathrin	55.2	51.8	40.4			24.6
	Fipronil	98.5	92.5	83.7			9.52
	Fipronil Desulfinyl	80.0	92.4	61.1			34.7
	Fipronil Sulfide	79.4	77.9	71.0			8.79
	Fipronil Sulfone	59.5	39.3	62.3			35.0
	Fluazifop-P-butyl	112	92.1	84.8			8.27
	Fludioxonil	85.5	81.1	78.2			3.70
	Flumioxazin	76.9	68.3	70.3			2.30
	Flutolanil	64.4	49.2	56.2			13.2
	Fluxapyroxad	72.9	62.8	87.2			27.9
	Fonofos	65.9	43.2	60.8			33.8
	Gamma-BHC	98.1	66.3	74.1			11.0
	Gamma-Chlordane	71.1	76.2	84.1			9.88
	Heptachlor	39.9	45.7	39.0			15.8
	Heptachlor Epoxide	61.8	67.8	65.6			3.27
	Hexabromobenzene	75.3	74.4	78.7			5.58
	Hexachlorobenzene	87.8	60.8	75.2			21.1
	Hexazinone	79.8	93.2	85.9			8.21
	Imazalil	50.2	50.2	57.1			12.8
	Iprodione	64.2	51.5	59.6			14.6
	Kepone	177	168	157			7.30
	Lambda-Cyhalothrin	55.5	76.0	88.1			14.8
	Loratadine	99.4	99.6	100			0.636
	Malathion	108	119	116			2.16
	Metalaxyl	76.4	68.4	64.6			5.71
	Methoprene	78.1	102	85.6			17.5
	Methoxychlor	58.2	60.4	58.3			3.64
	Metolachlor	90.1	91.3	77.1			15.3
	Metribuzin	82.9	91.1	74.2			20.4
	Mevinphos	54.0	53.4	67.3			23.1
	MGK-264	57.7	63.5	59.8			5.99
	Mirex	53.5	76.1	79.8			4.79
	Molinate	70.9	68.8	54.9			22.4
	Myclobutanil	113	112	95.9			15.7

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8270E	Naled	56.2	57.0	50.0			13.2
	Napropamide	44.1	34.8	42.7			20.4
	Norflurazon	118	83.1	61.8			29.4
	Octinoxate	110	106	107			0.584
	Oxadiazon	99.3	90.3	72.7			
	Oxybenzone	104	95.2	103			8.21
	Oxychlordane	44.0	46.4	43.5			6.55
	Oxyfluorfen	105	103	106			3.71
	Parathion Ethyl	96.9	97.7	89.6			8.66
	Parathion Methyl	109	141	109			25.4
	PBB-153	45.1	54.1	56.2			3.84
	PBDE-47	90.2	91.3	91.8			0.573
	PBDE-99	53.8	67.2	65.8			2.24
	PCB-1016	68.5	82.7	67.3			20.5
	PCB-1260	92.7	80.7	102			23.1
	Pendimethalin	98.4	98.4	102			3.93
	Pentabromotoluene	87.2	80.3	86.3			7.23
	Permethrin	51.2	66.1	67.4			1.93
	Phenothrin	50.4	65.9	70.2			6.24
	Phenytoin	25.8	23.8	22.4			5.80
	Phorate	113	159	119			28.1
	Piperonyl Butoxide	76.5	80.2	122			37.1
	Prallethrin	64.3	49.5	62.0			22.5
	Prodiamine	87.1	67.8	90.4			28.6
	Prometon	104	92.2	91.8			0.504
	Prometryn	113	111	96.2			14.7
	Pronamide	108	119	99.4			17.6
	Propanil	110	102	84.9			17.8
	Propargite	49.6	49.3	47.2			4.40
	Propiconazole	65.1	77.4	79.7			2.87
	Pyraflufen Ethyl	97.1	105	87.2			18.3
	Pyridaben	97.1	180	190			5.60
	Pyriproxyfen	123	138	127			8.09
	Simazine	76.3	89.4	79.3			12.0
	Stirophos	28.4	15.7	18.5			16.6
	Sulfentrazone	64.4	75.2	93.0			21.1
	Tau-Fluvalinate	76.2	80.5	75.5			6.42
	Tebuconazole	48.7	49.2	57.5			15.4
	Terbufos	69.7	68.6	75.4			9.50
	Terbuthylazine	93.3	89.6	91.8			2.46
	Tetradecachloro-m-terphenyl	78.6	98.7	92.7			6.24
	Tetramethrin	78.4	91.4	86.5			5.42
	Thiobencarb	94.6	105	93.7			11.0
	Trans-Nonachlor	103	61.9	68.6			10.2
	Tri-o-cresyl Phosphate	115	111	114			2.31
	Triadimefon	73.0	74.2	55.8			28.4
	Triclosan Methyl	59.7	46.6	48.4			3.77
	Trifluralin	52.0	55.0	52.1			5.43
	Tris(1-chloro-2-propyl) phosphate (TCPP)	122	116	115			0.612
	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	95.8	100	98.0			2.38
	Tris(2-chloroethyl) phosphate (TCEP)	104	95.4	95.2			0.188

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8276	Chlordane	70.7	58.2	72.3			21.6
	Toxaphene	75.0	60.4	75.3			22.0
EPA 8321B	2,4-D	97.8	93.3	94.6			0.800
	2,4,5-T	98.4	85.2	79.2			7.33
	3-Hydroxycarbofuran	78.3	77.2	84.8			9.34
	Acesulfame K	95.2	112	95.6			15.6
	Acetaminophen	95.5	78.4	78.3			0.116
	Acetamiprid	92.3	66.5	66.0			0.679
	Afidopyropen	82.1	83.0	76.1			8.69
	Aldicarb	43.7	41.7	47.0			12.0
	Aldicarb Sulfone	88.8	90.9	100			9.74
	Aldicarb Sulfoxide	123	62.4	71.5			13.5
	AMPA	98.8	96.0	97.6			1.66
	Bentazon	70.0					1.49
	Benzovindiflupyr	85.3	82.6	81.4			1.38
	Carbamazepine	79.1	55.7	54.9			1.51
	Carbaryl	71.8	56.3	62.2			9.88
	Carbofuran	76.4	57.6	57.4			0.324
	Clothianidin	86.7	70.1	70.7			0.898
	Dinotefuran	102	56.0	55.6			0.745
	Diuron	76.1	57.6	57.3			0.535
	Endothall	102	106	103			2.88
	Fenuron	124	57.0	56.8			0.348
	Fluridone	86.3	87.5	81.3			2.28
	Glufosinate	105	96.0	104			7.87
	Glyphosate	103	97.1	96.0			1.14
	Hydrocodone	99.4	58.4	59.5			1.94
	Ibuprofen	64.1	70.6	67.4			4.54
	Imazapyr	89.2	90.0	82.7			5.15
	Imidacloprid	86.9	99.2	97.3			1.70
	Linuron	72.4	64.1	65.3			1.79
	Mandestrobin	84.2	79.3	77.6			2.13
	MCPP	92.9	88.0	85.4			2.48
	Methiocarb	60.0	61.0	64.2			5.13
	Methomyl	80.5	71.8	78.9			9.43
	Naproxen	76.2	84.9	70.7			18.2
	Oxamyl	85.9	80.3	89.8			11.2
	Primidone	85.2	74.4	75.8			1.85
	Propoxur	72.6	55.8	55.8			0.0126
	Pyraclostrobin	80.9	80.6	77.9			3.35
	Silvex	85.5	101	92.9			8.37
	Sucralose	99.3	105	91.2			13.5
	Thiamethoxam	92.7	63.5	61.9			2.57
	Tolfenpyrad	60.7	52.4	53.7			2.56
	Triclopyr	107	89.2	81.6			8.87
SM 2320 B-2011	Total Alkalinity	98.1				0.0800	
SM 2540 C-2015	TDS	97.2				4.66	
SM 2540 D-2015	TSS	97.6					
SM 4500-F- C-2011	Fluoride	102	103	99.8			1.43
SM 5310 B-2011	Organic Carbon	98.1	87.6	90.7			3.18

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2452643
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2452643
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2452643
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2452643
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2452644
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2452644
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2452644
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2452644
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2452654
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2452652, 2452653
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2452654
EPA 8270E	PCBs in water matrices by GC/MS/MS	2452652, 2452653
EPA 8276	Chlordane and Toxaphene in water matrices by GC/MS with Negative Chemical Ionization	2452652, 2452653
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2452650
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2452651
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2452643
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2452643
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2452643
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2452643
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2452644

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	11/21/2023			11/21/2023 15:05	Chandler E Cox	2452643
EPA 180.1 Rev. 2.0	11/21/2023			11/21/2023 14:50	Anna M. Plaviak	2452643
EPA 300.0 Rev. 2.1	11/21/2023			11/30/2023 04:16	James L Waggerby	2452643
EPA 350.1 Rev. 2.0	11/21/2023			12/05/2023 12:45	Ping Hua	2452644
EPA 351.2 Rev. 2.0	11/21/2023	11/29/2023 14:15	Simonne.V. Calhoun	11/30/2023 10:56	Ping Hua	2452644
EPA 353.2 Rev. 2.0	11/21/2023			11/27/2023 13:44	Fadila Guebre	2452644
EPA 365.1 Rev. 2.0	11/21/2023	11/30/2023 12:55	Adam P Silver	12/04/2023 12:54	Chandler E Cox	2452644
EPA 8270E	11/21/2023	11/27/2023 08:00	Fe-Val Siddell	12/04/2023 22:34	Arthur Maknenko	2452654
	11/21/2023	11/27/2023 08:00	Fe-Val Siddell	12/05/2023 21:24	Vandana T. Nagar	2452654
	11/21/2023	11/27/2023 08:30	Rasheda Ghaffari	12/03/2023 22:50	Lipi Saha	2452652
	11/21/2023	11/27/2023 08:30	Rasheda Ghaffari	12/03/2023 23:20	Lipi Saha	2452653
	11/21/2023	11/27/2023 08:30	Rasheda Ghaffari	12/10/2023 02:36	Vandana T. Nagar	2452652
	11/21/2023	11/27/2023 08:30	Rasheda Ghaffari	12/10/2023 05:51	Vandana T. Nagar	2452653
EPA 8276	11/21/2023	11/27/2023 08:30	Rasheda Ghaffari	12/15/2023 12:09	Kenedi Mills	2452652
	11/21/2023	11/27/2023 08:30	Rasheda Ghaffari	12/15/2023 13:07	Kenedi Mills	2452653
EPA 8321B	11/21/2023	11/21/2023 12:00	Tae K Lee	11/21/2023 15:50	Hana Lee	2452651
	11/21/2023	11/21/2023 12:00	Tae K Lee	11/21/2023 23:20	Hana Lee	2452651
	11/21/2023	11/21/2023 14:00	Hoor Shaik	11/28/2023 07:01	Juyoung Kim	2452650
	11/21/2023	11/27/2023 09:00	Hoor Shaik	11/29/2023 16:30	Juyoung Kim	2452651
	11/21/2023	11/27/2023 09:00	Hoor Shaik	11/30/2023 10:37	Juyoung Kim	2452651
SM 2320 B-2011	11/21/2023			11/28/2023 09:07	Adam P Silver	2452643
SM 2540 C-2015	11/21/2023			11/21/2023 16:31	Yijie Li	2452643
SM 2540 D-2015	11/21/2023			11/21/2023 16:31	Yijie Li	2452643
SM 4500-F- C-2011	11/21/2023			12/06/2023 03:23	Chandler E Cox	2452643
SM 5310 B-2011	11/21/2023			12/02/2023 05:19	Kenneth H Lee	2452644