

Chemical Analysis Report

SE-DIST-2023-01-10-01

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

Event Description: **Okeechobee**
Request ID: **RQ-2023-01-09-14**
Customer: **SE-DIST**
Project ID: **SMP**

Send Reports to:
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Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator

Date Certified: 01-FEB-2023 14:21



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: Gomez Creek North @ 441

Collection Date/Time: 01/09/2023 09:45

Field ID: G3SE0046

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2379173	DEP SOP: NU-094-1	Color (true)	280		PCU	P424358	
	EPA 180.1 Rev. 2.0	Turbidity	5.2	A	NTU	P424362	
	EPA 300.0 Rev. 2.1	Chloride	62		mg Cl/L	P424624	
		Sulfate	9.1		mg SO4/L	P424627	
	SM 2320 B-2011	Total Alkalinity	61		mg CaCO3/L	P424709	
	SM 2540 C-2015	TDS	248		mg/L	P424910	
	SM 2540 D-2015	TSS	9	I	mg/L	P424819	
	SM 4500-F- C-2011	Fluoride	0.13		mg F/L	P425151	
2379175	EPA 350.1 Rev. 2.0	Ammonia-N	0.053		mg N/L	P424565	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.3		mg N/L	P424510	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.038		mg N/L	P424606	
	EPA 365.1 Rev. 2.0	Total-P	1.0		mg P/L	P424440	
	SM 5310 B-2011	Organic Carbon	34		mg C/L	P424545	

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: Fort Drum Creek @ 304th Street

Collection Date/Time: 01/09/2023 10:00

Field ID: G3SE0012

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2379193	EPA 200.7 Rev. 4.4	Calcium	20.0		mg/L	P424418	
		Cobalt	1.0	U	ug/L	P424418	
		Iron	670		ug/L	P424418	
		Magnesium	4.31		mg/L	P424418	
		Manganese	24.5		ug/L	P424418	
		Potassium	3.5		mg/L	P424418	
		Sodium	14.7		mg/L	P424418	
		Strontium	368		ug/L	P424418	
		Tin	3.2	I	ug/L	P424418	
		Titanium	0.97	I	ug/L	P424418	
		Vanadium	2.0	U	ug/L	P424418	
		Zinc	31		ug/L	P424418	
	EPA 200.8 Rev. 5.4	Aluminum	153		ug/L	P424418	
		Antimony	0.050	U	ug/L	P424418	
		Arsenic	0.47		ug/L	P424418	
		Barium	15.8		ug/L	P424418	
		Beryllium	0.020	I	ug/L	P424418	
		Boron	25.3		ug/L	P424418	
		Cadmium	0.020	U	ug/L	P424418	
		Chromium	0.87	I	ug/L	P424418	
		Copper	0.57	I	ug/L	P424418	
		Lead	0.20	U	ug/L	P424418	
		Molybdenum	0.15	U	ug/L	P424418	
		Nickel	0.67	I	ug/L	P424418	
		Selenium	0.20	U	ug/L	P424418	
		Silver	0.010	U	ug/L	P424418	
		Thallium	0.10	U	ug/L	P424418	
	SM 2340 B-2011	Hardness	67.7		mg/L	P424418	

Ref. Method and Comment:

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium, magnesium, potassium and sodium are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

MS

Sample Location: Lemkin Creek @ 78

Collection Date/Time: 01/09/2023 10:50

Field ID: G1SE0026

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2379180	DEP SOP: NU-094-1	Color (true)	170		PCU	P424358	
	EPA 180.1 Rev. 2.0	Turbidity	1.7		NTU	P424362	
	EPA 300.0 Rev. 2.1	Chloride	140		mg Cl/L	P424624	
		Sulfate	85		mg SO4/L	P424627	
	SM 2320 B-2011	Total Alkalinity	70		mg CaCO3/L	P424709	
	SM 2540 C-2015	TDS	431		mg/L	P424910	
	SM 2540 D-2015	TSS	2	U	mg/L	P424819	
	SM 4500-F- C-2011	Fluoride	0.085	I	mg F/L	P425151	
2379181	EPA 350.1 Rev. 2.0	Ammonia-N	0.11		mg N/L	P424565	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.5		mg N/L	P424388	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.050		mg N/L	P424606	
	EPA 365.1 Rev. 2.0	Total-P	0.074		mg P/L	P424440	
	SM 5310 B-2011	Organic Carbon	25		mg C/L	P424545	
2379182	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.040		mg P/L	P424364	

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: Taylor Creek @ 98

Collection Date/Time: 01/09/2023 11:15

Field ID: G1SE0025

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2379177	DEP SOP: NU-094-1	Color (true)	120		PCU	P424358	
	EPA 180.1 Rev. 2.0	Turbidity	11		NTU	P424362	
	EPA 300.0 Rev. 2.1	Chloride	62		mg Cl/L	P424624	
		Sulfate	31		mg SO4/L	P424627	
	SM 2320 B-2011	Total Alkalinity	119		mg CaCO3/L	P424709	
	SM 2540 C-2015	TDS	303		mg/L	P424910	
	SM 2540 D-2015	TSS	12		mg/L	P424819	
	SM 4500-F- C-2011	Fluoride	0.14		mg F/L	P425151	
2379178	EPA 350.1 Rev. 2.0	Ammonia-N	0.093		mg N/L	P424565	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.8		mg N/L	P424388	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.32		mg N/L	P424606	
	EPA 365.1 Rev. 2.0	Total-P	0.21		mg P/L	P424440	
	SM 5310 B-2011	Organic Carbon	22		mg C/L	P424545	
2379179	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.13		mg P/L	P424364	
2379191	EPA 8270E	Aldrin	0.66	U	ng/L	P424351	
		Alpha-BHC	0.10	U	ng/L	P424351	
		Alpha-Chlordane	0.20	U	ng/L	P424351	
		PCB-1016	2.0	U	ng/L	P424351	
		Beta-BHC	0.10	U	ng/L	P424351	
		PCB-1221	2.0	U	ng/L	P424351	
		Beta-Cyfluthrin	1.3	U	ng/L	P424351	
		PCB-1232	2.0	U	ng/L	P424351	
		Bifenthrin	0.51	U	ng/L	P424351	
		PCB-1242	2.0	U	ng/L	P424351	
		PCB-1248	2.0	U	ng/L	P424351	
		Chlorothalonil	3.7	U	ng/L	P424351	
		PCB-1254	2.0	U	ng/L	P424351	
		Cis-Nonachlor	0.20	U	ng/L	P424351	
		PCB-1260	2.0	U	ng/L	P424351	
		Cypermethrin	1.5	U	ng/L	P424351	
		Dacthal	0.15	U	ng/L	P424351	
		DDD-p,p'	0.26	U	ng/L	P424351	
		DDE-p,p'	0.20	U	ng/L	P424351	
		DDT-p,p'	0.26	U	ng/L	P424351	
		Delta-BHC	0.41	U	ng/L	P424351	
		Deltamethrin	1.3	U	ng/L	P424351	
		Dichlobenil	0.26	U	ng/L	P424351	
		Dicofol	1.3	U	ng/L	P424351	
		Dieldrin	0.41	U	ng/L	P424351	
		Endosulfan I	0.41	U	ng/L	P424351	
		Endosulfan II	0.41	U	ng/L	P424351	
		Endosulfan Sulfate	0.31	U	ng/L	P424351	
		Endrin	0.41	U	ng/L	P424351	

Field ID: G1SE0025

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2379191	EPA 8270E	Endrin Aldehyde	0.77	U	ng/L	P424351	
		Endrin Ketone	0.41	U	ng/L	P424351	
		Esfenvalerate	0.77	U	ng/L	P424351	
		Ethalfuralin	0.15	U	ng/L	P424351	
		Fenpropathrin	0.26	U	ng/L	P424351	
		Gamma-BHC	0.13	U	ng/L	P424351	
		Gamma-Chlordane	0.20	U	ng/L	P424351	
		Heptachlor	0.20	U	ng/L	P424351	
		Heptachlor Epoxide	0.26	U	ng/L	P424351	
		Hexachlorobenzene**	1.0	U	ng/L	P424351	
		Kepone	5.1	UJ	ng/L	P424351	CCV
		Lambda-Cyhalothrin	0.77	U	ng/L	P424351	
		Methoprene	0.77	U	ng/L	P424351	
		Methoxychlor	0.31	U	ng/L	P424351	
		MGK-264	0.20	U	ng/L	P424351	
		Mirex	0.36	U	ng/L	P424351	
		Oxychlordane	0.31	U	ng/L	P424351	
		Permethrin	1.6	U	ng/L	P424351	
		Phenothrin	0.92	U	ng/L	P424351	
		Piperonyl Butoxide	0.15	U	ng/L	P424351	
		Prallethrin	2.0	U	ng/L	P424351	
		Tau-Fluvalinate	0.26	U	ng/L	P424351	
		Tetramethrin	0.77	U	ng/L	P424351	
		Trans-Nonachlor	0.20	U	ng/L	P424351	
		Triclosan Methyl	0.15	U	ng/L	P424351	
		Trifluralin	0.20	U	ng/L	P424351	
	EPA 8276	Chlordane	2.0	U	ng/L	P424351	
		Toxaphene	15	U	ng/L	P424351	
2379192	EPA 8270E	Oxybenzone**	10	U	ng/L	P424368	
		Acetochlor	0.25	U	ng/L	P424368	
		Octinoxate**	20	U	ng/L	P424368	
		Alachlor	0.25	U	ng/L	P424368	
		Avobenzone**	100	U	ng/L	P424368	
		Ametryn	4.7		ng/L	P424368	
		Atrazine	38		ng/L	P424368	
		PBDE-47**	4.0	U	ng/L	P424368	
		Atrazine Desethyl	8.5		ng/L	P424368	
		PBDE-99**	5.0	U	ng/L	P424368	
		Azinphos Methyl	2.0	U	ng/L	P424368	
		Tri-o-cresyl Phosphate**	6.0	U	ng/L	P424368	
		Azoxystrobin	2.1		ng/L	P424368	
		Bromacil	1.9	I	ng/L	P424368	
		2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)**	12	U	ng/L	P424368	
		Butylate	0.40	U	ng/L	P424368	

Field ID: G1SE0025

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2379192	EPA 8270E	Dechlorane Plus**	30	U	ng/L	P424368	MS
		Caffeine**	28	I	ng/L	P424368	
		Carbophenothion	0.20	U	ng/L	P424368	
		Carfentrazone Ethyl	0.10	U	ng/L	P424368	
		Chlorfenapyr	0.18	U	ng/L	P424368	
		Chlorpyrifos Ethyl	0.25	U	ng/L	P424368	
		Chlorpyrifos Methyl	0.050	U	ng/L	P424368	
		Coumaphos	0.50	U	ng/L	P424368	
		Cyanazine	3.3	UJ	ng/L	P424368	
		Cyprodinil	0.10	U	ng/L	P424368	
		Demeton	1.5	U	ng/L	P424368	
		Diazinon	0.13	U	ng/L	P424368	
		Difenoconazole	0.60	U	ng/L	P424368	
		Dimethenamid	0.14	I	ng/L	P424368	
		Dimethomorph	0.18	U	ng/L	P424368	
		Disulfoton	0.50	U	ng/L	P424368	
		Dithiopyr	0.63	U	ng/L	P424368	
		EPTC	1.3	U	ng/L	P424368	
		Ethion	0.15	U	ng/L	P424368	
		Ethoprop	0.10	U	ng/L	P424368	
		Etridiazole	0.15	U	ng/L	P424368	
		Fenamiphos	0.50	U	ng/L	P424368	
		Fenbuconazole	0.13	U	ng/L	P424368	
		Fipronil	0.27	I	ng/L	P424368	
		Fipronil Desulfinyl**	0.19	I	ng/L	P424368	
		Fipronil Sulfide	0.32	I	ng/L	P424368	
		Fipronil Sulfone	0.65		ng/L	P424368	
		Fluazifop-P-butyl	0.10	U	ng/L	P424368	
		Fludioxonil	0.13	U	ng/L	P424368	
		Flumioxazin	4.5	U	ng/L	P424368	
		Flutolanil	0.11	I	ng/L	P424368	
		Fluxapyroxad	0.50		ng/L	P424368	
		Fonofos	0.20	U	ng/L	P424368	
		Hexazinone	69		ng/L	P424368	
		Imazalil	0.75	U	ng/L	P424368	
		Iprodione	0.60	UJ	ng/L	P424368	MS
		Loratadine**	0.35	U	ng/L	P424368	
		Malathion	0.35	U	ng/L	P424368	
		Metalaxyl	1.1	I	ng/L	P424368	
		Metolachlor	4.8		ng/L	P424368	
		Metribuzin	1.5	U	ng/L	P424368	
		Mevinphos	1.1	U	ng/L	P424368	
		Molinate	0.30	U	ng/L	P424368	
		Myclobutanil	0.25	U	ng/L	P424368	
		Naled	1.5	U	ng/L	P424368	

Field ID: G1SE0025

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2379192	EPA 8270E	Napropamide	0.40	U	ng/L	P424368	
		Norflurazon	1.2	I	ng/L	P424368	
		Oxadiazon	0.44	I	ng/L	P424368	
		Oxyfluorfen	0.15	U	ng/L	P424368	
		Parathion Ethyl	0.25	U	ng/L	P424368	
		Parathion Methyl	0.55	UJ	ng/L	P424368	MS
		Pendimethalin	1.0	U	ng/L	P424368	
		Phenytol**	3.5	U	ng/L	P424368	
		Phorate	0.53	UJ	ng/L	P424368	LCS, MS
		Prodiatamine	0.18	U	ng/L	P424368	
		Prometon	0.90	U	ng/L	P424368	
		Prometryn	0.20	U	ng/L	P424368	
		Pronamide	0.15	U	ng/L	P424368	
		Propanil	0.13	U	ng/L	P424368	
		Propargite	1.5	U	ng/L	P424368	
		Propiconazole	0.78	I	ng/L	P424368	
		Pyraflufen Ethyl	0.25	U	ng/L	P424368	
		Pyridaben	0.85	I	ng/L	P424368	
		Pyriproxyfen	0.13	U	ng/L	P424368	
		Simazine	1.2	I	ng/L	P424368	
		Stirophos	0.13	U	ng/L	P424368	
		Sulfentrazone	7.0		ng/L	P424368	
		Tebuconazole	3.9		ng/L	P424368	
		Terbufos	0.10	UJ	ng/L	P424368	MS
		Terbutylazine	0.43	U	ng/L	P424368	
		Thiobencarb	0.60	U	ng/L	P424368	
		Triadimefon	0.33	I	ng/L	P424368	

Ref. Method and Comment:

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

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

EPA 8270E: MS accuracy for ametryn, atrazine, and hexazinone not assessed due to high content of these parameters in the sample spiked. Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: Lettuce Creek @ 710

Collection Date/Time: 01/09/2023 12:00

Field ID: G1SE0015

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2379174	DEP SOP: NU-094-1	Color (true)	270		PCU	P424358	
	EPA 180.1 Rev. 2.0	Turbidity	4.0		NTU	P424362	
	EPA 300.0 Rev. 2.1	Chloride	55		mg Cl/L	P424624	
		Sulfate	13		mg SO4/L	P424627	
	SM 2320 B-2011	Total Alkalinity	79		mg CaCO3/L	P424709	
	SM 2540 C-2015	TDS	270		mg/L	P424910	
	SM 2540 D-2015	TSS	2	I	mg/L	P424819	
	SM 4500-F- C-2011	Fluoride	0.13		mg F/L	P425151	
2379176	EPA 350.1 Rev. 2.0	Ammonia-N	0.15		mg N/L	P424565	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P424510	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.18		mg N/L	P424606	
	EPA 365.1 Rev. 2.0	Total-P	0.24		mg P/L	P424440	
	SM 5310 B-2011	Organic Carbon	30		mg C/L	P424545	

Ref. Method and Comment:

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

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P424358

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P424362

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P424418

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Cobalt	1.0	U	ug/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Manganese	1.0	U	ug/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: P424418

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
Copper	0.40	U	ug/L
Lead	0.20	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: P424624

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

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Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P424627

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P424565

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P424388

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P424510

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P424606

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P424440

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P424364

Component	Result	Code	Units
O-Phosphate-P	0.004	U	mg P/L

Reference Method: EPA 8270E
Batch ID: P424351

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

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Reference Method: EPA 8270E

Batch ID: P424351

Component	Result	Code	Units
Bifenthrin	0.50	U	ng/L
Bifenthrin	0.50	U	ng/L
Chlorothalonil	3.6	U	ng/L
Chlorothalonil	3.6	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cypermethrin	1.5	U	ng/L
Cypermethrin	1.5	U	ng/L
Dacthal	0.15	U	ng/L
Dacthal	0.15	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDT-p,p'	0.25	U	ng/L
DDT-p,p'	0.25	U	ng/L
Delta-BHC	0.40	U	ng/L
Delta-BHC	0.40	U	ng/L
Deltamethrin	1.2	U	ng/L
Deltamethrin	1.2	U	ng/L
Dichlobenil	0.25	U	ng/L
Dichlobenil	0.25	U	ng/L
Dicofol	1.2	U	ng/L
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.40	U	ng/L
Endrin	0.40	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Ketone	0.40	U	ng/L
Endrin Ketone	0.40	U	ng/L
Esfenvalerate	0.75	U	ng/L
Esfenvalerate	0.75	U	ng/L
Ethalfuralin	0.15	U	ng/L
Ethalfuralin	0.15	U	ng/L
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

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Method Blank Results

Reference Method: EPA 8270E

Batch ID: P424351

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

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Method Blank Results

Reference Method: EPA 8270E

Batch ID: P424368

Component	Result	Code	Units
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	12	U	ng/L
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	12	U	ng/L
Acetochlor	0.25	U	ng/L
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Avobenzone	100	U	ng/L
Avobenzone	100	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azoxystrobin	0.50	U	ng/L
Azoxystrobin	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Butylate	0.40	U	ng/L
Caffeine	7.5	U	ng/L
Caffeine	7.5	U	ng/L
Carbophenothion	0.20	U	ng/L
Carbophenothion	0.20	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Chlorfenapyr	0.18	U	ng/L
Chlorfenapyr	0.18	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Coumaphos	0.50	U	ng/L
Coumaphos	0.50	U	ng/L
Cyanazine	3.2	U	ng/L
Cyanazine	3.2	U	ng/L
Cyprodinil	0.10	U	ng/L
Cyprodinil	0.10	U	ng/L
Dechlorane Plus	30	U	ng/L
Dechlorane Plus	30	U	ng/L
Demeton	1.5	U	ng/L
Demeton	1.5	U	ng/L
Diazinon	0.12	U	ng/L
Diazinon	0.12	U	ng/L
Difenoconazole	0.60	U	ng/L
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethomorph	0.18	U	ng/L
Dimethomorph	0.18	U	ng/L

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Method Blank Results

Reference Method: EPA 8270E

Batch ID: P424368

Component	Result	Code	Units
Disulfoton	0.50	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.62	U	ng/L
Dithiopyr	0.62	U	ng/L
EPTC	1.2	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Ethoprop	0.10	U	ng/L
Etridiazole	0.15	U	ng/L
Etridiazole	0.15	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
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	4.5	U	ng/L
Flumioxazin	4.5	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	0.35	U	ng/L
Loratadine	0.35	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	1.5	U	ng/L
Metribuzin	1.5	U	ng/L

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Reference Method: EPA 8270E

Batch ID: P424368

Component	Result	Code	Units
Mevinphos	1.0	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.30	U	ng/L
Molinate	0.30	U	ng/L
Myclobutanil	0.25	U	ng/L
Myclobutanil	0.25	U	ng/L
Naled	1.5	U	ng/L
Naled	1.5	U	ng/L
Napropamide	0.40	U	ng/L
Napropamide	0.40	U	ng/L
Norflurazon	0.50	U	ng/L
Norflurazon	0.50	U	ng/L
Octinoxate	20	U	ng/L
Octinoxate	20	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxybenzone	10	U	ng/L
Oxybenzone	10	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Parathion Methyl	0.55	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-99	5.0	U	ng/L
PBDE-99	5.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Phenytoin	3.5	U	ng/L
Phenytoin	3.5	U	ng/L
Phorate	0.52	U	ng/L
Phorate	0.52	U	ng/L
Prodiamine	0.18	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Prometryn	0.20	U	ng/L
Pronamide	0.15	U	ng/L
Pronamide	0.15	U	ng/L
Propanil	0.12	U	ng/L
Propanil	0.12	U	ng/L
Propargite	1.5	U	ng/L
Propargite	1.5	U	ng/L
Propiconazole	0.50	U	ng/L
Propiconazole	0.50	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyridaben	0.45	U	ng/L
Pyridaben	0.45	U	ng/L

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Reference Method: EPA 8270E

Batch ID: P424368

Component	Result	Code	Units
Pyriproxyfen	0.12	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Simazine	0.50	U	ng/L
Simazine	0.50	U	ng/L
Stirophos	0.12	U	ng/L
Stirophos	0.12	U	ng/L
Sulfentrazone	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L
Terbuthylazine	0.42	U	ng/L
Thiobencarb	0.60	U	ng/L
Thiobencarb	0.60	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Triadimefon	0.25	U	ng/L
Triadimefon	0.25	U	ng/L

Reference Method: EPA 8276

Batch ID: P424351

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

Reference Method: SM 2320 B-2011

Batch ID: P424709

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

Reference Method: SM 2540 C-2015

Batch ID: P424910

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015

Batch ID: P424819

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011

Batch ID: P425151

Component	Result	Code	Units
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Reference Method: SM 4500-F- C-2011
Batch ID: P425151

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P424545

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: P424358

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	102		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P424362

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P424418

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	101		P	85 - 115
Cobalt	101		P	85 - 115
Iron	105		P	85 - 115
Magnesium	101		P	85 - 115
Manganese	102		P	85 - 115
Potassium	103		P	85 - 115
Sodium	106		P	85 - 115
Strontium	106		P	85 - 115
Tin	103		P	85 - 115
Titanium	101		P	85 - 115
Vanadium	101		P	85 - 115
Zinc	99.7		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P424418

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	103		P	85 - 115
Antimony	106		P	85 - 115
Arsenic	104		P	85 - 115
Barium	105		P	85 - 115
Beryllium	95.8		P	85 - 115
Boron	102		P	85 - 115
Cadmium	105		P	85 - 115
Chromium	101		P	85 - 115
Copper	102		P	85 - 115
Lead	97.5		P	85 - 115
Molybdenum	103		P	85 - 115
Nickel	104		P	85 - 115
Selenium	103		P	85 - 115
Silver	104		P	85 - 115
Thallium	102		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P424624

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	98.7		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P424627

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P424565

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P424388

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P424510

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P424606

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	93.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P424440

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P424364

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	98.9		P	90 - 110

Reference Method: EPA 8270E
Batch ID: P424351

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	48.3		P	10 - 92.0
Alpha-BHC	78.8		P	75 - 107
Alpha-Chlordane	67.3		P	50 - 108
Beta-BHC	88.8		P	36 - 138
Beta-Cyfluthrin	49.3		P	20 - 161
Bifenthrin	29.6		P	10 - 119
Chlorothalonil	94.1		P	26 - 186
Cis-Nonachlor	58.7		P	42 - 119
Cypermethrin	48.8		P	22 - 150
Dacthal	80.5		P	72 - 119

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P424351

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
DDD-p,p'	64.1		P	45 - 107
DDE-p,p'	61.1		P	48 - 106
DDT-p,p'	54.6		P	48 - 110
Delta-BHC	100		P	54 - 140
Deltamethrin	64.1		P	22 - 189
Dichlobenil	81.1		P	36 - 117
Dicofol	63.9		P	46 - 155
Dieldrin	66.0		P	54 - 110
Endosulfan I	72.0		P	59 - 105
Endosulfan II	80.7		P	51 - 118
Endosulfan Sulfate	91.0		P	57 - 121
Endrin	69.5		P	10 - 120
Endrin Aldehyde	71.6		P	34 - 118
Endrin Ketone	76.4		P	69 - 177
Esfenvalerate	52.0		P	23 - 168
Ethalfuralin	57.4		P	49 - 99.0
Fenpropathrin	42.0		P	34 - 117
Gamma-BHC	88.1		P	72 - 117
Gamma-Chlordane	60.9		P	43 - 106
Heptachlor	62.9		P	41 - 98.0
Heptachlor Epoxide	76.8		P	57 - 106
Hexachlorobenzene	57.5		P	36 - 99.0
Kepone	143		P	16 - 215
Lambda-Cyhalothrin	37.7		P	21 - 177
Methoprene	40.7		P	10 - 119
Methoxychlor	69.5		P	60 - 112
MGK-264	89.6		P	26 - 122
Mirex	47.4		P	10 - 169
Oxychlordane	70.1		P	43 - 105
PCB-1016	73.6		P	48 - 112
PCB-1260	70.9		P	44 - 118
Permethrin	43.8		P	24 - 148
Phenothrin	20.9		P	10 - 106
Piperonyl Butoxide	86.4		P	10 - 139
Prallethrin	77.8		P	17 - 109
Tau-Fluvalinate	44.0		P	13 - 131
Tetramethrin	79.0		P	10 - 132
Trans-Nonachlor	66.3		P	44 - 106
Triclosan Methyl	65.0		P	59 - 109
Trifluralin	58.6		P	44 - 101

Reference Method: EPA 8270E

Batch ID: P424368

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	105		P	42 - 162
Acetochlor	79.3		P	69 - 123
Alachlor	70.9		P	65 - 118
Ametryn	109		P	58 - 141
Atrazine	88.1		P	73 - 118
Atrazine Desethyl	52.3		P	32 - 125
Avobenzone	134		P	40 - 203

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P424368

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Azinphos Methyl	122		P	36 - 197
Azoxystrobin	98.4		P	58 - 226
Bromacil	79.3		P	48 - 120
Butylate	56.5		P	27 - 85.0
Caffeine	99.7		P	40 - 137
Carbophenothion	98.7		P	54 - 132
Carfentrazone Ethyl	82.7		P	60 - 142
Chlorfenapyr	63.8		P	53 - 117
Chlorpyrifos Ethyl	86.0		P	59 - 116
Chlorpyrifos Methyl	91.5		P	66 - 119
Coumaphos	140		P	11 - 234
Cyanazine	245		P	61 - 248
Cyprodinil	107		P	50 - 147
Dechlorane Plus	121		P	47 - 182
Demeton	102		P	30 - 138
Diazinon	84.2		P	67 - 126
Difenoconazole	138		P	38 - 205
Dimethenamid	95.0		P	57 - 111
Dimethomorph	117		P	16 - 212
Disulfoton	83.5		P	46 - 126
Dithiopyr	70.1		P	62 - 115
EPTC	54.2		P	28 - 80.0
Ethion	68.4		P	24 - 122
Ethoprop	97.4		P	62 - 113
Etridiazole	48.4		P	28 - 92.0
Fenamiphos	90.1		P	57 - 128
Fenbuconazole	136		P	52 - 155
Fipronil	69.0		P	63 - 130
Fipronil Desulfinyl	64.9		P	61 - 130
Fipronil Sulfide	91.1		P	56 - 117
Fipronil Sulfone	116		P	52 - 118
Fluazifop-P-butyl	93.4		P	61 - 128
Fludioxonil	81.2		P	59 - 129
Flumioxazin	72.5		P	30 - 250
Flutolanil	78.7		P	53 - 127
Fluxapyroxad	119		P	42 - 132
Fonofos	87.2		P	61 - 110
Hexazinone	94.0		P	46 - 139
Imazalil	101		P	40 - 139
Iprodione	126		P	40 - 146
Loratadine	95.6		P	10 - 224
Malathion	99.1		P	61 - 135
Metalaxyl	96.0		P	58 - 121
Metolachlor	79.3		P	64 - 118
Metribuzin	88.7		P	45 - 245
Mevinphos	95.3		P	49 - 118
Molinate	75.3		P	42 - 92.0
Myclobutanil	84.4		P	55 - 127
Naled	99.5		P	10 - 114
Napropamide	56.8		P	39 - 121
Norflurazon	93.4		P	55 - 129
Octinoxate	98.3		P	26 - 166

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P424368

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Oxadiazon	91.4		P	54 - 115
Oxybenzone	95.6		P	49 - 135
Oxyfluorfen	80.0		P	64 - 139
Parathion Ethyl	95.5		P	70 - 111
Parathion Methyl	131		P	76 - 136
PBDE-47	104		P	41 - 148
PBDE-99	105		P	38 - 147
Pendimethalin	76.1		P	52 - 118
Phenytoin	44.4		P	10 - 162
Phorate	132		F	40 - 122
Prodiamine	75.1		P	26 - 141
Prometon	96.8		P	54 - 122
Prometryn	98.6		P	61 - 128
Pronamide	74.1		P	72 - 121
Propanil	95.4		P	45 - 144
Propargite	82.4		P	10 - 199
Propiconazole	83.4		P	56 - 127
Pyraflufen Ethyl	84.1		P	56 - 140
Pyridaben	101		P	26 - 211
Pyriproxyfen	93.8		P	33 - 194
Simazine	91.6		P	67 - 121
Stirophos	97.2		P	20 - 142
Sulfentrazone	93.1		P	21 - 144
Tebuconazole	86.3		P	10 - 122
Terbufos	97.2		P	60 - 129
Terbuthylazine	88.9		P	69 - 113
Thiobencarb	111		P	51 - 120
Tri-o-cresyl Phosphate	105		P	49 - 150
Triadimefon	68.1		P	56 - 114

Reference Method: EPA 8276

Batch ID: P424351

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	86.9		P	61 - 116
Toxaphene	94.7		P	48 - 124

Reference Method: SM 2320 B-2011

Batch ID: P424709

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	96.1		P	94 - 106

Reference Method: SM 2540 C-2015

Batch ID: P424910

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2540 D-2015
Batch ID: P424819

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	98.1		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P425151

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

Reference Method: SM 5310 B-2011
Batch ID: P424545

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P424418

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2379193	Calcium	102		P	80 - 120
2379193	Cobalt	102	102	P/P	80 - 120
2379193	Iron	104	108	P/P	80 - 120
2379193	Magnesium	103		P	80 - 120
2379193	Manganese	103	105	P/P	80 - 120
2379193	Potassium	100	107	P/P	80 - 120
2379193	Sodium	107		P	80 - 120
2379193	Strontium	104	107	P/P	80 - 120
2379193	Tin	99.9	100	P/P	80 - 120
2379193	Titanium	103	105	P/P	80 - 120
2379193	Vanadium	105	107	P/P	80 - 120
2379193	Zinc	98.9	102	P/P	80 - 120
2379387	Cobalt	102		P	80 - 120
2379387	Iron	100		P	80 - 120
2379387	Manganese	105		P	80 - 120
2379387	Strontium	103		P	80 - 120
2379387	Tin	102		P	80 - 120
2379387	Titanium	109		P	80 - 120
2379387	Vanadium	112		P	80 - 120
2379387	Zinc	113		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P424418

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2379193	Aluminum	103	101	P/P	80 - 120
2379193	Antimony	108	107	P/P	80 - 120
2379193	Arsenic	107	105	P/P	80 - 120
2379193	Barium	107	103	P/P	80 - 120
2379193	Beryllium	97.3	97.1	P/P	80 - 120
2379193	Boron	102	103	P/P	80 - 120
2379193	Cadmium	106	109	P/P	80 - 120
2379193	Chromium	102	100	P/P	80 - 120
2379193	Copper	100	99.6	P/P	80 - 120
2379193	Lead	98.6	99.1	P/P	80 - 120
2379193	Molybdenum	105	104	P/P	80 - 120
2379193	Nickel	104	104	P/P	80 - 120
2379193	Selenium	101	99.3	P/P	80 - 120
2379193	Silver	103	101	P/P	80 - 120
2379193	Thallium	105	106	P/P	80 - 120
2379387	Aluminum	108		P	80 - 120
2379387	Antimony	113		P	80 - 120
2379387	Arsenic	120		P	80 - 120
2379387	Barium	113		P	80 - 120
2379387	Beryllium	80.1		P	80 - 120
2379387	Boron	60.8		F	80 - 120
2379387	Cadmium	101		P	80 - 120
2379387	Chromium	101		P	80 - 120
2379387	Copper	81.0		P	80 - 120
2379387	Lead	106		P	80 - 120
2379387	Molybdenum	113		P	80 - 120
2379387	Nickel	91.3		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P424418

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2379387	Selenium	116		P	80 - 120
2379387	Silver	88.6		P	80 - 120
2379387	Thallium	105		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P424624

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2379138	Chloride	95.1		P	90 - 110
2379142	Chloride	95.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P424627

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2379138	Sulfate	98.2		P	90 - 110
2379142	Sulfate	97.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P424565

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2379225	Ammonia-N	97.8	98.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P424388

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2378949	Kjeldahl Nitrogen	103	98.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P424510

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2379346	Kjeldahl Nitrogen	103	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P424606

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2379178	NO2NO3-N	96.8		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P424440

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2379202	Total-P	103	108	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P424364

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P424364

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2378950	O-Phosphate-P	93.8	94.2	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P424351

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2378767	Aldrin	49.4	49.6	P/P	20 - 82.0
2378767	Alpha-BHC	81.8	80.7	P/P	71 - 109
2378767	Alpha-Chlordane	78.8	79.8	P/P	42 - 106
2378767	Beta-BHC	83.6	91.9	P/P	69 - 180
2378767	Beta-Cyfluthrin	84.5	86.9	P/P	18 - 175
2378767	Bifenthrin	57.1	62.2	P/P	21 - 128
2378767	Chlorothalonil	166	171	P/P	10 - 300
2378767	Cis-Nonachlor	65.2	75.5	P/P	34 - 106
2378767	Cypermethrin	86.8	81.2	P/P	22 - 158
2378767	Dacthal	78.2	78.0	P/P	54 - 116
2378767	DDD-p,p'	63.5	82.0	P/P	34 - 107
2378767	DDE-p,p'	65.8	70.9	P/P	33 - 110
2378767	DDT-p,p'	62.8	63.9	P/P	50 - 122
2378767	Delta-BHC	106	108	P/P	77 - 193
2378767	Deltamethrin	124	132	P/P	10 - 195
2378767	Dichlobenil	45.3	47.5	P/P	25 - 113
2378767	Dicofol	76.7	79.7	P/P	38 - 247
2378767	Dieldrin	62.9	68.7	P/P	45 - 118
2378767	Endosulfan I	72.6	71.2	P/P	51 - 106
2378767	Endosulfan II	84.4	84.8	P/P	37 - 122
2378767	Endosulfan Sulfate	87.8	89.6	P/P	43 - 132
2378767	Endrin	77.4	85.3	P/P	29 - 101
2378767	Endrin Aldehyde	61.4	63.6	P/P	19 - 110
2378767	Endrin Ketone	72.0	71.2	P/P	60 - 140
2378767	Esfenvalerate	109	111	P/P	26 - 199
2378767	Ethalfuralin	62.7	62.2	P/P	45 - 99.0
2378767	Fenpropathrin	57.5	66.0	P/P	35 - 120
2378767	Gamma-BHC	73.2	67.5	P/P	63 - 128
2378767	Gamma-Chlordane	72.9	76.9	P/P	40 - 104
2378767	Heptachlor	68.5	57.8	P/P	36 - 97.0
2378767	Heptachlor Epoxide	78.6	71.1	P/P	49 - 184
2378767	Hexachlorobenzene	57.2	60.8	P/P	39 - 96.0
2378767	Kepone	136	126	P/P	10 - 217
2378767	Lambda-Cyhalothrin	73.4	69.7	P/P	21 - 193
2378767	Methoprene	89.6	84.5	P/P	20 - 106
2378767	Methoxychlor	79.8	84.8	P/P	53 - 118
2378767	MGK-264	94.2	88.1	P/P	40 - 118
2378767	Mirex	52.0	49.1	P/P	26 - 92.0
2378767	Oxychlordane	76.2	67.4	P/P	44 - 99.0
2378767	Permethrin	74.1	73.5	P/P	33 - 182
2378767	Phenothrin	36.0	37.4	P/P	10 - 129
2378767	Piperonyl Butoxide	83.7	97.5	P/P	10 - 211
2378767	Prallethrin	104	109	P/P	24 - 113
2378767	Tau-Fluvalinate	94.1	103	P/P	14 - 149
2378767	Tetramethrin	92.0	95.9	P/P	17 - 151
2378767	Trans-Nonachlor	72.4	67.2	P/P	42 - 102

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P424351

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2378767	Triclosan Methyl	71.7	76.9	P/P	48 - 108
2378767	Trifluralin	63.2	68.0	P/P	47 - 96.0
2378945	PCB-1016	76.3	76.6	P/P	46 - 111
2378945	PCB-1260	74.3	72.7	P/P	45 - 114

Reference Method: EPA 8270E

Batch ID: P424368

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2379192	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	95.6	100	P/P	26 - 165
2379192	Acetochlor	71.6	85.5	P/P	67 - 124
2379192	Alachlor	68.3	83.7	P/P	60 - 120
2379192	Atrazine Desethyl	56.6	61.7	P/P	15 - 122
2379192	Avobenzone	113	114	P/P	37 - 178
2379192	Azinphos Methyl	126	123	P/P	40 - 292
2379192	Azoxystrobin	105	111	P/P	35 - 220
2379192	Bromacil	85.0	80.4	P/P	45 - 127
2379192	Butylate	55.8	52.0	P/P	20 - 83.0
2379192	Caffeine	99.3	95.7	P/P	10 - 194
2379192	Carbophenothion	108	108	P/P	57 - 127
2379192	Carfentrazone Ethyl	82.0	81.0	P/P	51 - 141
2379192	Chlorfenapyr	70.9	71.8	P/P	46 - 111
2379192	Chlorpyrifos Ethyl	72.8	79.7	P/P	52 - 120
2379192	Chlorpyrifos Methyl	89.0	108	P/P	63 - 119
2379192	Coumaphos	155	139	P/P	10 - 228
2379192	Cyanazine	260	232	F/P	59 - 241
2379192	Cyprodinil	113	133	P/P	47 - 146
2379192	Dechlorane Plus	79.1	74.8	P/P	50 - 150
2379192	Demeton	129	124	P/P	40 - 136
2379192	Diazinon	84.1	102	P/P	69 - 132
2379192	Difenoconazole	176	142	P/P	57 - 258
2379192	Dimethenamid	96.8	92.6	P/P	54 - 110
2379192	Dimethomorph	116	146	P/P	28 - 210
2379192	Disulfoton	88.5	96.4	P/P	43 - 133
2379192	Dithiopyr	70.4	83.8	P/P	39 - 116
2379192	EPTC	50.0	48.2	P/P	20 - 78.0
2379192	Ethion	71.2	69.3	P/P	17 - 119
2379192	Ethoprop	110	117	P/P	66 - 120
2379192	Etridiazole	49.2	36.0	P/P	28 - 96.0
2379192	Fenamiphos	87.9	97.7	P/P	41 - 126
2379192	Fenbuconazole	148	128	P/P	42 - 169
2379192	Fipronil	79.0	87.4	P/P	61 - 132
2379192	Fipronil Desulfinyl	63.1	88.0	P/P	56 - 132
2379192	Fipronil Sulfide	116	109	P/P	48 - 119
2379192	Fipronil Sulfone	117	108	P/P	42 - 131
2379192	Fluazifop-P-butyl	107	102	P/P	53 - 131
2379192	Fludioxonil	93.0	97.2	P/P	56 - 127
2379192	Flumioxazin	97.5	108	P/P	19 - 300
2379192	Flutolanil	85.2	92.3	P/P	41 - 127
2379192	Fluxapyroxad	137	162	P/P	42 - 172
2379192	Fonofos	89.4	109	P/P	59 - 113
2379192	Imazalil	152	118	P/P	21 - 283

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P424368

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2379192	Iprodione	148	172	P/F	43 - 150
2379192	Loratadine	106	111	P/P	23 - 201
2379192	Malathion	98.8	97.0	P/P	58 - 136
2379192	Metalaxyl	94.7	97.5	P/P	55 - 120
2379192	Metolachlor	81.6	79.6	P/P	57 - 121
2379192	Metribuzin	102	109	P/P	58 - 294
2379192	Mevinphos	112	119	P/P	50 - 126
2379192	Molinate	86.3	75.3	P/P	42 - 93.0
2379192	Myclobutanil	96.2	101	P/P	55 - 125
2379192	Naled	105	126	P/P	18 - 200
2379192	Napropamide	64.3	73.1	P/P	39 - 110
2379192	Norflurazon	114	121	P/P	48 - 128
2379192	Octinoxate	77.7	84.3	P/P	21 - 159
2379192	Oxadiazon	93.5	87.8	P/P	43 - 112
2379192	Oxybenzone	76.8	87.1	P/P	41 - 142
2379192	Oxyfluorfen	94.3	108	P/P	64 - 153
2379192	Parathion Ethyl	100	113	P/P	69 - 114
2379192	Parathion Methyl	150	154	F/F	79 - 139
2379192	PBDE-47	83.2	88.8	P/P	27 - 144
2379192	PBDE-99	85.0	89.6	P/P	18 - 150
2379192	Pendimethalin	101	118	P/P	50 - 139
2379192	Phenytoin	45.1	43.2	P/P	10 - 146
2379192	Phorate	162	136	F/P	54 - 161
2379192	Prodiamine	91.4	85.1	P/P	30 - 161
2379192	Prometon	109	133	P/P	45 - 134
2379192	Prometryn	110	133	P/P	45 - 137
2379192	Pronamide	81.2	87.4	P/P	65 - 133
2379192	Propanil	98.5	89.1	P/P	49 - 142
2379192	Propargite	79.1	89.8	P/P	10 - 203
2379192	Propiconazole	113	119	P/P	38 - 146
2379192	Pyraflufen Ethyl	78.5	98.3	P/P	34 - 153
2379192	Pyridaben	99.9	107	P/P	12 - 192
2379192	Pyriproxyfen	86.5	100	P/P	33 - 180
2379192	Simazine	112	104	P/P	51 - 157
2379192	Stirophos	98.8	99.7	P/P	10 - 128
2379192	Sulfentrazone	151	112	P/P	53 - 186
2379192	Tebuconazole	86.2	95.0	P/P	10 - 133
2379192	Terbufos	115	142	P/F	65 - 139
2379192	Terbuthylazine	96.5	104	P/P	66 - 117
2379192	Thiobencarb	117	98.4	P/P	51 - 119
2379192	Tri-o-cresyl Phosphate	82.9	90.4	P/P	31 - 144
2379192	Triadimefon	57.7	59.0	P/P	48 - 119

Reference Method: EPA 8276

Batch ID: P424351

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2378945	Chlordane	74.3	76.1	P/P	53 - 126
2378945	Toxaphene	128	112	P/P	56 - 211

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: SM 4500-F- C-2011
Batch ID: P425151

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2379229	Fluoride	98.8	99.4	P/P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P424545

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2379122	Organic Carbon	96.8	97.2	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P424358

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2379220	Color (true)	0.0907	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P424362

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2379173	Turbidity	4.65	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P424418

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2379193	Calcium	2.95	Spike	P	0 - 20
2379193	Cobalt	0.701	Spike	P	0 - 20
2379193	Iron	3.31	Spike	P	0 - 20
2379193	Magnesium	3.53	Spike	P	0 - 20
2379193	Manganese	1.65	Spike	P	0 - 20
2379193	Potassium	3.72	Spike	P	0 - 20
2379193	Sodium	2.03	Spike	P	0 - 20
2379193	Strontium	2.11	Spike	P	0 - 20
2379193	Tin	0.595	Spike	P	0 - 20
2379193	Titanium	2.03	Spike	P	0 - 20
2379193	Vanadium	1.74	Spike	P	0 - 20
2379193	Zinc	3.21	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P424418

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2379193	Aluminum	1.37	Spike	P	0 - 20
2379193	Antimony	0.631	Spike	P	0 - 20
2379193	Arsenic	1.69	Spike	P	0 - 20
2379193	Barium	2.72	Spike	P	0 - 20
2379193	Beryllium	0.150	Spike	P	0 - 20
2379193	Boron	1.05	Spike	P	0 - 20
2379193	Cadmium	2.58	Spike	P	0 - 20
2379193	Chromium	1.66	Spike	P	0 - 20
2379193	Copper	0.865	Spike	P	0 - 20
2379193	Lead	0.519	Spike	P	0 - 20
2379193	Molybdenum	0.584	Spike	P	0 - 20
2379193	Nickel	0.367	Spike	P	0 - 20
2379193	Selenium	1.88	Spike	P	0 - 20
2379193	Silver	1.05	Spike	P	0 - 20
2379193	Thallium	0.842	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P424624

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2379138	Chloride	0.271	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P424627

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2379138	Sulfate	1.34	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P424565

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2379225	Ammonia-N	0.186	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P424388

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2378949	Kjeldahl Nitrogen	2.74	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P424510

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2379346	Kjeldahl Nitrogen	0.548	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P424606

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2379178	NO2NO3-N	0.585	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P424440

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2379202	Total-P	4.02	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P424364

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2378950	O-Phosphate-P	0.426	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P424351

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2378767	Aldrin	0.293	Spike	P	0 - 41
2378767	Alpha-BHC	1.45	Spike	P	0 - 25
2378767	Alpha-Chlordane	1.20	Spike	P	0 - 33
2378767	Beta-BHC	9.39	Spike	P	0 - 36
2378767	Beta-Cyfluthrin	2.88	Spike	P	0 - 42
2378767	Bifenthrin	8.43	Spike	P	0 - 53
2378767	Chlorothalonil	3.20	Spike	P	0 - 71
2378767	Cis-Nonachlor	14.6	Spike	P	0 - 29
2378767	Cypermethrin	6.69	Spike	P	0 - 40
2378767	Dacthal	0.266	Spike	P	0 - 26
2378767	DDD-p,p'	25.4	Spike	P	0 - 39
2378767	DDE-p,p'	7.50	Spike	P	0 - 33
2378767	DDT-p,p'	1.77	Spike	P	0 - 40
2378767	Delta-BHC	2.31	Spike	P	0 - 37
2378767	Deltamethrin	6.50	Spike	P	0 - 100
2378767	Dichlobenil	4.62	Spike	P	0 - 40
2378767	Dicofol	3.83	Spike	P	0 - 31
2378767	Dieldrin	7.47	Spike	P	0 - 27
2378767	Endosulfan I	1.95	Spike	P	0 - 23
2378767	Endosulfan II	0.456	Spike	P	0 - 28
2378767	Endosulfan Sulfate	2.00	Spike	P	0 - 38
2378767	Endrin	9.74	Spike	P	0 - 63
2378767	Endrin Aldehyde	3.52	Spike	P	0 - 60
2378767	Endrin Ketone	1.17	Spike	P	0 - 37
2378767	Esfenvalerate	1.70	Spike	P	0 - 52
2378767	Ethalfuralin	0.796	Spike	P	0 - 23
2378767	Fenpropathrin	13.7	Spike	P	0 - 32
2378767	Gamma-BHC	8.18	Spike	P	0 - 17
2378767	Gamma-Chlordane	5.30	Spike	P	0 - 40
2378767	Heptachlor	17.0	Spike	P	0 - 29
2378767	Heptachlor Epoxide	10.1	Spike	P	0 - 25
2378767	Hexachlorobenzene	6.16	Spike	P	0 - 36
2378767	Kepone	7.77	Spike	P	0 - 93
2378767	Lambda-Cyhalothrin	5.07	Spike	P	0 - 55
2378767	Methoprene	5.92	Spike	P	0 - 53
2378767	Methoxychlor	6.01	Spike	P	0 - 29
2378767	MGK-264	6.73	Spike	P	0 - 35
2378767	Mirex	5.69	Spike	P	0 - 46
2378767	Oxychlordane	12.2	Spike	P	0 - 29
2378767	Permethrin	0.874	Spike	P	0 - 44
2378767	Phenothrin	3.90	Spike	P	0 - 56
2378767	Piperonyl Butoxide	15.3	Spike	P	0 - 100
2378767	Prallethrin	4.37	Spike	P	0 - 42
2378767	Tau-Fluvalinate	8.71	Spike	P	0 - 54
2378767	Tetramethrin	4.21	Spike	P	0 - 51
2378767	Trans-Nonachlor	7.47	Spike	P	0 - 37
2378767	Triclosan Methyl	7.08	Spike	P	0 - 31
2378767	Trifluralin	7.30	Spike	P	0 - 30
2378945	PCB-1016	0.405	Spike	P	0 - 32
2378945	PCB-1260	2.14	Spike	P	0 - 31

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P424368

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2379192	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	4.60	Spike	P	0 - 37
2379192	Acetochlor	17.7	Spike	P	0 - 28
2379192	Alachlor	20.2	Spike	P	0 - 30
2379192	Ametryn	27.8	Spike	P	0 - 32
2379192	Atrazine	3.14	Spike	P	0 - 41
2379192	Atrazine Desethyl	4.52	Spike	P	0 - 36
2379192	Avobenzone	1.00	Spike	P	0 - 36
2379192	Azinphos Methyl	3.02	Spike	P	0 - 75
2379192	Azoxystrobin	3.90	Spike	P	0 - 39
2379192	Bromacil	4.34	Spike	P	0 - 33
2379192	Butylate	6.94	Spike	P	0 - 44
2379192	Caffeine	3.45	Spike	P	0 - 74
2379192	Carbophenothion	0.330	Spike	P	0 - 25
2379192	Carfentrazone Ethyl	1.31	Spike	P	0 - 27
2379192	Chlorfenapyr	1.23	Spike	P	0 - 24
2379192	Chlorpyrifos Ethyl	9.03	Spike	P	0 - 26
2379192	Chlorpyrifos Methyl	19.4	Spike	P	0 - 26
2379192	Coumaphos	11.4	Spike	P	0 - 28
2379192	Cyanazine	11.5	Spike	P	0 - 48
2379192	Cyprodinil	16.8	Spike	P	0 - 29
2379192	Dechlorane Plus	5.60	Spike	P	0 - 30
2379192	Demeton	3.94	Spike	P	0 - 33
2379192	Diazinon	19.2	Spike	P	0 - 29
2379192	Difenoconazole	21.1	Spike	P	0 - 34
2379192	Dimethenamid	4.14	Spike	P	0 - 39
2379192	Dimethomorph	22.7	Spike	P	0 - 51
2379192	Disulfoton	8.50	Spike	P	0 - 30
2379192	Dithiopyr	17.3	Spike	P	0 - 26
2379192	EPTC	3.66	Spike	P	0 - 43
2379192	Ethion	2.72	Spike	P	0 - 79
2379192	Ethoprop	5.68	Spike	P	0 - 29
2379192	Etridiazole	31.0	Spike	P	0 - 33
2379192	Fenamiphos	10.5	Spike	P	0 - 40
2379192	Fenbuconazole	14.5	Spike	P	0 - 74
2379192	Fipronil	9.32	Spike	P	0 - 29
2379192	Fipronil Desulfinyl	30.9	Spike	P	0 - 32
2379192	Fipronil Sulfide	5.40	Spike	P	0 - 30
2379192	Fipronil Sulfone	6.60	Spike	P	0 - 33
2379192	Fluazifop-P-butyl	4.79	Spike	P	0 - 38
2379192	Fludioxonil	4.36	Spike	P	0 - 29
2379192	Flumioxazin	10.6	Spike	P	0 - 51
2379192	Flutolanil	7.79	Spike	P	0 - 25
2379192	Fluxapyroxad	15.4	Spike	P	0 - 45
2379192	Fonofos	19.7	Spike	P	0 - 27
2379192	Hexazinone	2.27	Spike	P	0 - 30
2379192	Imazalil	25.3	Spike	P	0 - 100
2379192	Iprodione	15.0	Spike	P	0 - 33
2379192	Loratadine	4.53	Spike	P	0 - 56
2379192	Malathion	1.87	Spike	P	0 - 37
2379192	Metalaxyl	2.72	Spike	P	0 - 40
2379192	Metolachlor	1.60	Spike	P	0 - 29

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P424368

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2379192	Metribuzin	6.08	Spike	P	0 - 45
2379192	Mevinphos	5.90	Spike	P	0 - 29
2379192	Molinate	13.7	Spike	P	0 - 33
2379192	Myclobutanil	4.81	Spike	P	0 - 26
2379192	Naled	17.7	Spike	P	0 - 37
2379192	Napropamide	12.8	Spike	P	0 - 44
2379192	Norflurazon	5.49	Spike	P	0 - 30
2379192	Octinoxate	8.04	Spike	P	0 - 45
2379192	Oxadiazon	5.56	Spike	P	0 - 28
2379192	Oxybenzone	12.5	Spike	P	0 - 46
2379192	Oxyfluorfen	13.6	Spike	P	0 - 28
2379192	Parathion Ethyl	11.6	Spike	P	0 - 31
2379192	Parathion Methyl	2.59	Spike	P	0 - 29
2379192	PBDE-47	6.56	Spike	P	0 - 36
2379192	PBDE-99	5.22	Spike	P	0 - 40
2379192	Pendimethalin	15.8	Spike	P	0 - 33
2379192	Phenytoin	4.13	Spike	P	0 - 100
2379192	Phorate	17.9	Spike	P	0 - 36
2379192	Prodiamine	7.16	Spike	P	0 - 71
2379192	Prometon	19.8	Spike	P	0 - 36
2379192	Prometryn	19.0	Spike	P	0 - 28
2379192	Pronamide	7.34	Spike	P	0 - 24
2379192	Propanil	10.1	Spike	P	0 - 28
2379192	Propargite	12.7	Spike	P	0 - 43
2379192	Propiconazole	4.72	Spike	P	0 - 33
2379192	Pyraflufen Ethyl	22.4	Spike	P	0 - 29
2379192	Pyridaben	6.02	Spike	P	0 - 30
2379192	Pyriproxyfen	14.7	Spike	P	0 - 79
2379192	Simazine	5.18	Spike	P	0 - 29
2379192	Stirophos	0.902	Spike	P	0 - 61
2379192	Sulfentrazone	18.0	Spike	P	0 - 33
2379192	Tebuconazole	7.15	Spike	P	0 - 69
2379192	Terbufos	20.7	Spike	P	0 - 29
2379192	Terbuthylazine	7.47	Spike	P	0 - 32
2379192	Thiobencarb	17.6	Spike	P	0 - 26
2379192	Tri-o-cresyl Phosphate	8.59	Spike	P	0 - 33
2379192	Triadimefon	1.82	Spike	P	0 - 28

Reference Method: EPA 8276
Batch ID: P424351

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2378945	Chlordane	2.32	Spike	P	0 - 25
2378945	Toxaphene	13.9	Spike	P	0 - 26

Reference Method: SM 2320 B-2011
Batch ID: P424709

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

Reference Method: SM 2320 B-2011
Batch ID: P424709

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2379739	Total Alkalinity	1.55	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2015
Batch ID: P424910

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2378760	TDS	0.342	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P425151

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2379229	Fluoride	0.487	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P424545

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2379122	Organic Carbon	0.256	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2379191
Field Sample ID: G1SE0025

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	83.3	P	29 - 130
EPA 8270E	Decachlorobiphenyl	79.1	P	30 - 118
EPA 8270E	Tetrachloro-m-xylene	55.2	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	64.6	P	30 - 97.0
EPA 8276	Decachlorobiphenyl	55.6	P	30 - 101
EPA 8276	PCNB	70.4	P	48 - 121

Lab Sample ID: 2379192
Field Sample ID: G1SE0025

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	88.7	P	20 - 200
EPA 8270E	Simazine-d10	104	P	62 - 142
EPA 8270E	Terbufos-d10	94.9	P	58 - 132
EPA 8270E	Terphenyl-d14	92.5	P	52 - 137

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A116827

Included Lab Sample IDs: 2379177

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	100	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A116828

Included Lab Sample IDs: 2379173, 2379174, 2379177, 2379180

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.5	100	P/P	95 - 105

Reference Method: DEP SOP: NU-094-1

Run ID: A116829

Included Lab Sample IDs: 2379173, 2379174, 2379180

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	99.3	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A116831

Included Lab Sample IDs: 2379179, 2379182

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.3	99.9	P/P	90 - 110
O-Phosphate-P	99.9	99.1	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A116833

Included Lab Sample IDs: 2379173, 2379174, 2379177, 2379180

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	97.9	98.8	P/P	90 - 110
Chloride	98.8	99.0	P/P	90 - 110
Sulfate	98.2	98.9	P/P	90 - 110
Sulfate	98.9	99.3	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A116891

Included Lab Sample IDs: 2379176, 2379178, 2379181

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A116893

Included Lab Sample IDs: 2379175

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.8	102	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-2011

Run ID: A116895

Included Lab Sample IDs: 2379175, 2379176, 2379178, 2379181

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	99.6	99.0	P/P	90 - 110
Organic Carbon	99.8	99.6	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A116902

Included Lab Sample IDs: 2379175, 2379176, 2379178, 2379181

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.9	98.8	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A116920

Included Lab Sample IDs: 2379175, 2379176, 2379178, 2379181

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	104	93.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A116926

Included Lab Sample IDs: 2379178, 2379181

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	104	100	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A116932

Included Lab Sample IDs: 2379192

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	100		P	80 - 120
Avobenzone	100		P	80 - 120
Dechlorane Plus	99.7		P	80 - 120
Octinoxate	99.3		P	80 - 120
Oxybenzone	101		P	80 - 120
PBDE-47	98.3		P	80 - 120
PBDE-99	102		P	80 - 120
Tri-o-cresyl Phosphate	99.3		P	80 - 120

Reference Method: EPA 8270E

Run ID: A116942

Included Lab Sample IDs: 2379191

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	103		P	80 - 120
Alpha-BHC	99.0		P	80 - 120
Alpha-Chlordane	92.6		P	80 - 120
Beta-BHC	95.0		P	80 - 120
Beta-Cyfluthrin	95.5		P	80 - 120
Bifenthrin	104		P	80 - 120
Chlorothalonil	98.7		P	80 - 120
Cis-Nonachlor	107		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A116942
Included Lab Sample IDs: 2379191

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cypermethrin	106		P	80 - 120
Dacthal	108		P	80 - 120
DDD-p,p'	97.9		P	80 - 120
DDE-p,p'	95.7		P	80 - 120
DDT-p,p'	98.1		P	80 - 120
Delta-BHC	99.9		P	80 - 120
Deltamethrin	96.7		P	80 - 120
Dichlobenil	91.5		P	80 - 120
Dicofol	102		P	80 - 120
Dieldrin	95.0		P	80 - 120
Endosulfan I	104		P	80 - 120
Endosulfan II	106		P	80 - 120
Endosulfan Sulfate	97.0		P	80 - 120
Endrin	93.8		P	80 - 120
Endrin Aldehyde	103		P	80 - 120
Endrin Ketone	103		P	80 - 120
Esfenvalerate	93.0		P	80 - 120
Ethalfuralin	102		P	80 - 120
Fenpropathrin	105		P	80 - 120
Gamma-BHC	102		P	80 - 120
Gamma-Chlordane	101		P	80 - 120
Heptachlor	107		P	80 - 120
Heptachlor Epoxide	108		P	80 - 120
Hexachlorobenzene	93.8		P	80 - 120
Kepone	78.4*		F	80 - 120
Lambda-Cyhalothrin	110		P	80 - 120
Methoprene	102		P	80 - 120
Methoxychlor	105		P	80 - 120
MGK-264	103		P	80 - 120
Mirex	108		P	80 - 120
Oxychlordane	109		P	80 - 120
Permethrin	94.3		P	80 - 120
Phenothrin	101		P	80 - 120
Piperonyl Butoxide	94.1		P	80 - 120
Prallethrin	101		P	80 - 120
Tau-Fluvalinate	94.5		P	80 - 120
Tetramethrin	94.7		P	80 - 120
Trans-Nonachlor	106		P	80 - 120
Triclosan Methyl	99.0		P	80 - 120
Trifluralin	106		P	80 - 120

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A116954
Included Lab Sample IDs: 2379175, 2379176

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	103	104	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-2011

Run ID: A116966

Included Lab Sample IDs: 2379173, 2379174, 2379177, 2379180

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	96.7	95.5	P/P	90 - 110

Reference Method: EPA 8276

Run ID: A116971

Included Lab Sample IDs: 2379191

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	87.0		P	80 - 120
Toxaphene	94.6		P	80 - 120

Reference Method: EPA 8270E

Run ID: A116982

Included Lab Sample IDs: 2379191

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	98.1		P	80 - 120
PCB-1260	98.5		P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A116990

Included Lab Sample IDs: 2379193

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	101	102	P/P	90 - 110
Cobalt	96.4	96.0	P/P	90 - 110
Iron	105	105	P/P	90 - 110
Magnesium	104	104	P/P	90 - 110
Manganese	98.8	99.6	P/P	90 - 110
Potassium	106	104	P/P	90 - 110
Sodium	108	108	P/P	90 - 110
Strontium	100	102	P/P	90 - 110
Tin	95.9	94.8	P/P	90 - 110
Titanium	97.0	97.6	P/P	90 - 110
Vanadium	97.6	97.2	P/P	90 - 110
Zinc	94.7	92.4	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A117034

Included Lab Sample IDs: 2379192

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	98.1		P	80 - 120
Alachlor	88.7		P	80 - 120
Ametryn	120		P	80 - 120
Atrazine	98.5		P	80 - 120
Atrazine Desethyl	80.9		P	80 - 120
Azinphos Methyl	81.8		P	80 - 120
Azoxystrobin	96.8		P	80 - 120
Bromacil	114		P	80 - 120
Butylate	83.6		P	80 - 120
Caffeine	99.9		P	80 - 120

Quality Assurance Report

Calibration Verification

Reference Method: EPA 8270E
 Run ID: A117034
 Included Lab Sample IDs: 2379192

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Carbophenothion	90.5		P	80 - 120
Carfentrazone Ethyl	85.4		P	80 - 120
Chlorfenapyr	87.7		P	80 - 120
Chlorpyrifos Ethyl	116		P	80 - 120
Chlorpyrifos Methyl	120		P	80 - 120
Coumaphos	95.1		P	80 - 120
Cyanazine	99.7		P	80 - 120
Cyprodinil	91.9		P	80 - 120
Demeton	112		P	80 - 120
Diazinon	102		P	80 - 120
Difenoconazole	90.5		P	80 - 120
Dimethenamid	112		P	80 - 120
Dimethomorph	107		P	80 - 120
Disulfoton	84.0		P	80 - 120
Dithiopyr	94.1		P	80 - 120
EPTC	95.9		P	80 - 120
Ethion	85.7		P	80 - 120
Ethoprop	118		P	80 - 120
Etridiazole	95.6		P	80 - 120
Fenamiphos	120		P	80 - 120
Fenbuconazole	103		P	80 - 120
Fipronil	87.3		P	80 - 120
Fipronil Desulfinyl	92.7		P	80 - 120
Fipronil Sulfide	99.1		P	80 - 120
Fipronil Sulfone	88.9		P	80 - 120
Fluazifop-P-butyl	91.3		P	80 - 120
Fludioxonil	95.9		P	80 - 120
Flumioxazin	90.3		P	80 - 120
Flutolanil	120		P	80 - 120
Fluxapyroxad	87.0		P	80 - 120
Fonofos	95.9		P	80 - 120
Hexazinone	102		P	80 - 120
Imazalil	98.2		P	80 - 120
Iprodione	100		P	80 - 120
Loratadine	90.7		P	80 - 120
Malathion	114		P	80 - 120
Metalaxyl	93.5		P	80 - 120
Metolachlor	117		P	80 - 120
Metribuzin	88.3		P	80 - 120
Mevinphos	91.5		P	80 - 120
Molinate	105		P	80 - 120
Myclobutanil	92.9		P	80 - 120
Naled	103		P	80 - 120
Napropamide	113		P	80 - 120
Norflurazon	85.5		P	80 - 120
Oxadiazon	105		P	80 - 120
Oxyfluorfen	87.5		P	80 - 120
Parathion Ethyl	113		P	80 - 120
Parathion Methyl	82.6		P	80 - 120
Pendimethalin	89.1		P	80 - 120
Phenytol	89.1		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A117034
Included Lab Sample IDs: 2379192

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Phorate	107		P	80 - 120
Prodiamine	108		P	80 - 120
Prometon	120		P	80 - 120
Prometryn	96.0		P	80 - 120
Pronamide	91.3		P	80 - 120
Propanil	106		P	80 - 120
Propargite	82.4		P	80 - 120
Propiconazole	95.0		P	80 - 120
Pyraflufen Ethyl	86.9		P	80 - 120
Pyridaben	98.3		P	80 - 120
Pyriproxyfen	95.3		P	80 - 120
Simazine	102		P	80 - 120
Stirophos	93.9		P	80 - 120
Sulfentrazone	98.8		P	80 - 120
Tebuconazole	88.0		P	80 - 120
Terbufos	96.6		P	80 - 120
Terbutylazine	101		P	80 - 120
Thiobencarb	102		P	80 - 120
Triadimefon	95.6		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A117050
Included Lab Sample IDs: 2379193

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	99.7	101	P/P	90 - 110
Antimony	102	102	P/P	90 - 110
Arsenic	102	100	P/P	90 - 110
Barium	101	101	P/P	90 - 110
Boron	98.6	99.5	P/P	90 - 110
Cadmium	102	102	P/P	90 - 110
Chromium	96.6	97.4	P/P	90 - 110
Copper	98.7	98.9	P/P	90 - 110
Lead	94.7	94.6	P/P	90 - 110
Molybdenum	98.0	99.4	P/P	90 - 110
Nickel	99.2	100	P/P	90 - 110
Selenium	102	100	P/P	90 - 110
Silver	99.7	101	P/P	90 - 110
Thallium	101	99.5	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A117079
Included Lab Sample IDs: 2379193

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Beryllium	97.4	98.9	P/P	90 - 110

Quality Assurance Report

Calibration Verification

Reference Method: SM 4500-F- C-2011

Run ID: A117157

Included Lab Sample IDs: 2379173, 2379174, 2379177, 2379180

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	104	101	P/P	90 - 110

* Pass/Fail determinations are made for each bracketing calibration verification check.

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			LCS	Precision SMP	MS
DEP SOP: NU-094-1	Color (true)	102					0.0907	
EPA 180.1 Rev. 2.0	Turbidity	101					4.65	
EPA 200.7 Rev. 4.4	Calcium	101	102					2.95
	Cobalt	101	102	102	102			0.701
	Iron	105	104	108	100			3.31
	Magnesium	101	103					3.53
	Manganese	102	103	105	105			1.65
	Potassium	103	100	107				3.72
	Sodium	106	107					2.03
	Strontium	106	104	107	103			2.11
	Tin	103	99.9	100	102			0.595
	Titanium	101	103	105	109			2.03
	Vanadium	101	105	107	112			1.74
	Zinc	99.7	98.9	102	113			3.21
EPA 200.8 Rev. 5.4	Aluminum	103	103	101	108			1.37
	Antimony	106	113	108	107			0.631
	Arsenic	104	120	107	105			1.69
	Barium	105	113	107	103			2.72
	Beryllium	95.8	80.1	97.3	97.1			0.150
	Boron	102	102	103	60.8			1.05
	Cadmium	105	101	106	109			2.58
	Chromium	101	102	100	101			1.66
	Copper	102	81.0	100	99.6			0.865
	Lead	97.5	98.6	99.1	106			0.519
	Molybdenum	103	105	104	113			0.584
	Nickel	104	104	104	91.3			0.367
	Selenium	103	116	101	99.3			1.88
	Silver	104	88.6	103	101			1.05
	Thallium	102	105	106	105			0.842
EPA 300.0 Rev. 2.1	Chloride	98.7	95.1	95.2			0.271	
	Sulfate	99.0	98.2	97.6			1.34	
EPA 350.1 Rev. 2.0	Ammonia-N	98.8	97.8	98.0				0.186
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	104	103	98.4				2.74
	Kjeldahl Nitrogen	103	103	103				0.548
EPA 353.2 Rev. 2.0	NO2NO3-N	93.5	96.8					0.585
EPA 365.1 Rev. 2.0	Total-P	108	103	108				4.02
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.9	93.8	94.2				0.426
EPA 8270E	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	105	95.6	100				4.60
	Acetochlor	79.3	71.6	85.5				17.7
	Alachlor	70.9	68.3	83.7				20.2
	Aldrin	48.3	49.4	49.6				0.293
	Alpha-BHC	78.8	81.8	80.7				1.45
	Alpha-Chlordane	67.3	78.8	79.8				1.20
	Ametryn	109						27.8
	Atrazine	88.1						3.14
	Atrazine Desethyl	52.3	56.6	61.7				4.52
	Avobenzone	134	113	114				1.00
	Azinphos Methyl	122	126	123				3.02
	Azoxystrobin	98.4	105	111				3.90
	Beta-BHC	88.8	83.6	91.9				9.39
	Beta-Cyfluthrin	49.3	84.5	86.9				2.88
	Bifenthrin	29.6	57.1	62.2				8.43

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Bromacil	79.3	85.0	80.4			4.34
	Butylate	56.5	55.8	52.0			6.94
	Caffeine	99.7	99.3	95.7			3.45
	Carbophenothion	98.7	108	108			0.330
	Carfentrazone Ethyl	82.7	82.0	81.0			1.31
	Chlorfenapyr	63.8	70.9	71.8			1.23
	Chlorothalonil	94.1	166	171			3.20
	Chlorpyrifos Ethyl	86.0	72.8	79.7			9.03
	Chlorpyrifos Methyl	91.5	89.0	108			19.4
	Cis-Nonachlor	58.7	65.2	75.5			14.6
	Coumaphos	140	155	139			11.4
	Cyanazine	245	260	232			11.5
	Cypermethrin	48.8	86.8	81.2			6.69
	Cyprodinil	107	113	133			16.8
	Dacthal	80.5	78.2	78.0			0.266
	DDD-p,p'	64.1	63.5	82.0			25.4
	DDE-p,p'	61.1	65.8	70.9			7.50
	DDT-p,p'	54.6	62.8	63.9			1.77
	Dechlorane Plus	121	79.1	74.8			5.60
	Delta-BHC	100	106	108			2.31
	Deltamethrin	64.1	124	132			6.50
	Demeton	102	129	124			3.94
	Diazinon	84.2	84.1	102			19.2
	Dichlobenil	81.1	45.3	47.5			4.62
	Dicofol	63.9	76.7	79.7			3.83
	Dieldrin	66.0	62.9	68.7			7.47
	Difenoconazole	138	176	142			21.1
	Dimethenamid	95.0	96.8	92.6			4.14
	Dimethomorph	117	116	146			22.7
	Disulfoton	83.5	88.5	96.4			8.50
	Dithiopyr	70.1	70.4	83.8			17.3
	Endosulfan I	72.0	72.6	71.2			1.95
	Endosulfan II	80.7	84.4	84.8			0.456
	Endosulfan Sulfate	91.0	87.8	89.6			2.00
	Endrin	69.5	77.4	85.3			9.74
	Endrin Aldehyde	71.6	61.4	63.6			3.52
	Endrin Ketone	76.4	72.0	71.2			1.17
	EPTC	54.2	50.0	48.2			3.66
	Esfenvalerate	52.0	109	111			1.70
	Ethalfuralin	57.4	62.7	62.2			0.796
	Ethion	68.4	71.2	69.3			2.72
	Ethoprop	97.4	110	117			5.68
	Etridiazole	48.4	49.2	36.0			31.0
	Fenamiphos	90.1	87.9	97.7			10.5
	Fenbuconazole	136	148	128			14.5
	Fenpropathrin	42.0	57.5	66.0			13.7
	Fipronil	69.0	79.0	87.4			9.32
	Fipronil Desulfinyl	64.9	63.1	88.0			30.9
	Fipronil Sulfide	91.1	116	109			5.40
	Fipronil Sulfone	116	117	108			6.60
	Fluazifop-P-butyl	93.4	107	102			4.79
	Fludioxonil	81.2	93.0	97.2			4.36
	Flumioxazin	72.5	97.5	108			10.6
	Flutolanil	78.7	85.2	92.3			7.79

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Fluxapyroxad	119	137	162		15.4
	Fonofos	87.2	89.4	109		19.7
	Gamma-BHC	88.1	73.2	67.5		8.18
	Gamma-Chlordane	60.9	72.9	76.9		5.30
	Heptachlor	62.9	68.5	57.8		17.0
	Heptachlor Epoxide	76.8	78.6	71.1		10.1
	Hexachlorobenzene	57.5	57.2	60.8		6.16
	Hexazinone	94.0				2.27
	Imazalil	101	152	118		25.3
	Iprodione	126	148	172		15.0
	Kepone	143	136	126		7.77
	Lambda-Cyhalothrin	37.7	73.4	69.7		5.07
	Loratadine	95.6	106	111		4.53
	Malathion	99.1	98.8	97.0		1.87
	Metalaxyl	96.0	94.7	97.5		2.72
	Methoprene	40.7	89.6	84.5		5.92
	Methoxychlor	69.5	79.8	84.8		6.01
	Metolachlor	79.3	81.6	79.6		1.60
	Metribuzin	88.7	102	109		6.08
	Mevinphos	95.3	112	119		5.90
	MGK-264	89.6	94.2	88.1		6.73
	Mirex	47.4	52.0	49.1		5.69
	Molinate	75.3	86.3	75.3		13.7
	Myclobutanil	84.4	96.2	101		4.81
	Naled	99.5	105	126		17.7
	Napropamide	56.8	64.3	73.1		12.8
	Norflurazon	93.4	114	121		5.49
	Octinoxate	98.3	77.7	84.3		8.04
	Oxadiazon	91.4	93.5	87.8		5.56
	Oxybenzone	95.6	76.8	87.1		12.5
	Oxychlordane	70.1	76.2	67.4		12.2
	Oxyfluorfen	80.0	94.3	108		13.6
	Parathion Ethyl	95.5	100	113		11.6
	Parathion Methyl	131	150	154		2.59
	PBDE-47	104	83.2	88.8		6.56
	PBDE-99	105	85.0	89.6		5.22
	PCB-1016	73.6	76.3	76.6		0.405
	PCB-1260	70.9	74.3	72.7		2.14
	Pendimethalin	76.1	101	118		15.8
	Permethrin	43.8	74.1	73.5		0.874
	Phenothrin	20.9	36.0	37.4		3.90
	Phenytoin	44.4	45.1	43.2		4.13
	Phorate	132	162	136		17.9
	Piperonyl Butoxide	86.4	83.7	97.5		15.3
	Prallethrin	77.8	104	109		4.37
	Prodimamine	75.1	91.4	85.1		7.16
	Prometon	96.8	109	133		19.8
	Prometryn	98.6	110	133		19.0
	Pronamide	74.1	81.2	87.4		7.34
	Propanil	95.4	98.5	89.1		10.1
	Propargite	82.4	79.1	89.8		12.7
	Propiconazole	83.4	113	119		4.72
	Pyraflufen Ethyl	84.1	78.5	98.3		22.4
	Pyridaben	101	99.9	107		6.02

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	SMP
EPA 8270E	Pyriproxyfen	93.8	86.5	100		14.7
	Simazine	91.6	112	104		5.18
	Stirophos	97.2	98.8	99.7		0.902
	Sulfentrazone	93.1	151	112		18.0
	Tau-Fluvalinate	44.0	94.1	103		8.71
	Tebuconazole	86.3	86.2	95.0		7.15
	Terbufos	97.2	115	142		20.7
	Terbuthylazine	88.9	96.5	104		7.47
	Tetramethrin	79.0	92.0	95.9		4.21
	Thiobencarb	111	117	98.4		17.6
	Trans-Nonachlor	66.3	72.4	67.2		7.47
	Tri-o-cresyl Phosphate	105	82.9	90.4		8.59
	Triadimefon	68.1	57.7	59.0		1.82
	Triclosan Methyl	65.0	71.7	76.9		7.08
	Trifluralin	58.6	63.2	68.0		7.30
EPA 8276	Chlordane	86.9	74.3	76.1		2.32
	Toxaphene	94.7	128	112		13.9
SM 2320 B-2011	Total Alkalinity	96.1				1.55
SM 2540 C-2015	TDS	105				0.342
SM 2540 D-2015	TSS	98.1				
SM 4500-F- C-2011	Fluoride	99.8	98.8	99.4		0.487
SM 5310 B-2011	Organic Carbon	97.6	96.8	97.2		0.256

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2379173, 2379174, 2379177, 2379180
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2379173, 2379174, 2379177, 2379180
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2379193
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2379193
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2379173, 2379174, 2379177, 2379180
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2379173, 2379174, 2379177, 2379180
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2379175, 2379176, 2379178, 2379181
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2379175, 2379176, 2379178, 2379181
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2379175, 2379176, 2379178, 2379181
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2379175, 2379176, 2379178, 2379181
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2379179, 2379182
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2379192
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2379191
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2379192
EPA 8270E	PCBs in water matrices by GC/MS/MS	2379191
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2379191
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2379173, 2379174, 2379177, 2379180
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2379193
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2379173, 2379174, 2379177, 2379180
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2379173, 2379174, 2379177, 2379180
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2379173, 2379174, 2379177, 2379180
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2379175, 2379176, 2379178, 2379181

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	01/10/2023			01/10/2023 15:15	Samantha L Bates	2379177
	01/10/2023			01/10/2023 16:13	Samantha L Bates	2379173
	01/10/2023			01/10/2023 16:14	Samantha L Bates	2379174, 2379180
EPA 180.1 Rev. 2.0	01/10/2023			01/10/2023 14:08	Khloe J Berg	2379173
	01/10/2023			01/10/2023 14:11	Khloe J Berg	2379174
	01/10/2023			01/10/2023 14:12	Khloe J Berg	2379177
	01/10/2023			01/10/2023 14:15	Khloe J Berg	2379180
EPA 200.7 Rev. 4.4	01/10/2023	01/11/2023 11:40	George D Taylor	01/19/2023 16:49	McKinley C Carter	2379193
EPA 200.8 Rev. 5.4	01/10/2023	01/11/2023 11:40	George D Taylor	01/23/2023 15:54	Megan Whitefoot	2379193
	01/10/2023	01/11/2023 11:40	George D Taylor	01/24/2023 19:48	Megan Whitefoot	2379193
EPA 300.0 Rev. 2.1	01/10/2023			01/13/2023 15:09	Anna M. Plaviak	2379173
	01/10/2023			01/13/2023 15:24	Anna M. Plaviak	2379174
	01/10/2023			01/13/2023 15:39	Anna M. Plaviak	2379177
	01/10/2023			01/13/2023 16:25	Anna M. Plaviak	2379180
EPA 350.1 Rev. 2.0	01/10/2023			01/13/2023 13:43	Ping Hua	2379175
	01/10/2023			01/13/2023 13:45	Ping Hua	2379176
	01/10/2023			01/13/2023 13:46	Ping Hua	2379178
	01/10/2023			01/13/2023 13:47	Ping Hua	2379181
EPA 351.2 Rev. 2.0	01/10/2023	01/11/2023 13:19	Samantha L Bates	01/17/2023 12:23	Samantha L Bates	2379178
	01/10/2023	01/11/2023 13:19	Samantha L Bates	01/17/2023 12:25	Samantha L Bates	2379181
	01/10/2023	01/13/2023 12:30	Simonne.V. Calhoun	01/18/2023 12:26	Samantha L Bates	2379175
	01/10/2023	01/13/2023 12:30	Simonne.V. Calhoun	01/18/2023 12:27	Samantha L Bates	2379176
EPA 353.2 Rev. 2.0	01/10/2023			01/17/2023 10:37	Beverly Y. Sanders	2379178
	01/10/2023			01/17/2023 10:43	Beverly Y. Sanders	2379175
	01/10/2023			01/17/2023 10:44	Beverly Y. Sanders	2379176
	01/10/2023			01/17/2023 10:46	Beverly Y. Sanders	2379181
EPA 365.1 Rev. 2.0	01/10/2023	01/12/2023 15:28	Adam P Silver	01/13/2023 10:41	James L Waggeberby	2379176
	01/10/2023	01/12/2023 15:28	Adam P Silver	01/13/2023 10:42	James L Waggeberby	2379178
	01/10/2023	01/12/2023 15:28	Adam P Silver	01/13/2023 10:46	James L Waggeberby	2379181
	01/10/2023	01/12/2023 15:28	Adam P Silver	01/13/2023 11:19	James L Waggeberby	2379175
EPA 365.1 Rev. 2.0 dissolved	01/10/2023			01/10/2023 16:33	Elise M. Gillis	2379179
	01/10/2023			01/10/2023 16:39	Elise M. Gillis	2379182
EPA 8270E	01/10/2023	01/12/2023 08:00	Rasheda Ghaffari	01/17/2023 23:26	Vandana T. Nagar	2379191
	01/10/2023	01/12/2023 08:00	Rasheda Ghaffari	01/18/2023 00:03	Julie Wi	2379191
	01/10/2023	01/14/2023 08:00	Fe-Val Siddell	01/17/2023 23:38	Arthur Maknenko	2379192
	01/10/2023	01/14/2023 08:00	Fe-Val Siddell	01/18/2023 15:56	Michael Poppell	2379192
EPA 8276	01/10/2023	01/12/2023 08:00	Rasheda Ghaffari	01/14/2023 15:52	Lipi Saha	2379191
SM 2320 B-2011	01/10/2023			01/19/2023 05:05	Adam P Silver	2379173
	01/10/2023			01/19/2023 05:19	Adam P Silver	2379174
	01/10/2023			01/19/2023 05:33	Adam P Silver	2379177

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2320 B-2011	01/10/2023			01/19/2023 05:48	Adam P Silver	2379180
SM 2340 B-2011	01/10/2023			01/19/2023 16:49	McKinley C Carter	2379193
SM 2540 C-2015	01/10/2023			01/13/2023 16:42	Yijie Li	2379173, 2379174, 2379177, 2379180
SM 2540 D-2015	01/10/2023			01/13/2023 16:42	Yijie Li	2379173, 2379174, 2379177, 2379180
SM 4500-F- C-2011	01/10/2023			01/28/2023 08:30	Dale L. Simmons	2379173
	01/10/2023			01/28/2023 08:35	Dale L. Simmons	2379174
	01/10/2023			01/28/2023 08:40	Dale L. Simmons	2379177
	01/10/2023			01/28/2023 08:46	Dale L. Simmons	2379180
	01/10/2023			01/12/2023 20:22	Khloe J Berg	2379175
SM 5310 B-2011	01/10/2023			01/12/2023 20:37	Khloe J Berg	2379176
	01/10/2023			01/12/2023 20:52	Khloe J Berg	2379178
	01/10/2023			01/12/2023 21:34	Khloe J Berg	2379181