Chemical Analysis Report

SE-DIST-2022-12-14-01

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

Event Description: **Key Largo / Plantation Key**
Request ID: **RQ-2022-11-28-27**
Customer: **SE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
2199 South Rock Road
Fort Pierce, FL 34945
Attn: Jordan Skaggs

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

Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator Date Certified: 09-JAN-2023 13:58

B. Steinbock

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: Atlantic Ocean East of South Sound Creek **Collection Date/Time: 12/13/2022 08:45**

Field ID: G5SE0128 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2375215	EPA 180.1 Rev. 2.0	Turbidity	1.0		NTU	P423536	
	SM 2320 B-2011	Total Alkalinity	125		mg CaCO3/L	P423947	
	SM 2540 D-2015	TSS	3	U	mg/L	P423788	
	SM 4500-F- C-2011	Fluoride	1.2		mg F/L	P424213	
2375219	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P424072	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.16	U	mg N/L	P423661	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P423771	
	EPA 365.1 Rev. 2.0	Total-P	0.006	I	mg P/L	P423570	
	SM 5310 B-2011	Organic Carbon	2.9	I	mg C/L	P423744	
2375227	EPA 8270E	Oxybenzone**	9.5	U	ng/L	P423586	
		Acetochlor	0.24	U	ng/L	P423586	
		Octinoxate**	19	U	ng/L	P423586	
		Alachlor	0.24	U	ng/L	P423586	
		Avobenzone**	95	U	ng/L	P423586	
		Ametryn	0.57	U	ng/L	P423586	
		Atrazine	3.2		ng/L	P423586	
		PBDE-47**	3.8	U	ng/L	P423586	
		Atrazine Desethyl	1.4	U	ng/L	P423586	
		PBDE-99**	4.8	U	ng/L	P423586	
		Azinphos Methyl	1.9	U	ng/L	P423586	
		Tri-o-cresyl Phosphate**	5.7	U	ng/L	P423586	
		Azoxystrobin	0.48	U	ng/L	P423586	
		Bromacil	0.48	U	ng/L	P423586	
		2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)**	11	U	ng/L	P423586	
		Butylate	0.38	U	ng/L	P423586	
		Dechlorane Plus**	29	U	ng/L	P423586	
		Caffeine**	7.1	U	ng/L	P423586	
		Carbophenothion	0.19	U	ng/L	P423586	
		Carfentrazone Ethyl	0.095	U	ng/L	P423586	
		Chlorfenapyr	0.17	U	ng/L	P423586	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P423586	
		Chlorpyrifos Methyl	0.048	UJ	ng/L	P423586	LCS, MS
		Coumaphos	0.48	U	ng/L	P423586	
		Cyanazine	3.1	U	ng/L	P423586	
		Cyprodinil	0.095	U	ng/L	P423586	
		Demeton	1.4	U	ng/L	P423586	
		Diazinon	0.12	U	ng/L	P423586	
		Difenoconazole	0.57	U	ng/L	P423586	
		Dimethenamid	0.095	U	ng/L	P423586	
		Dimethomorph	0.17	U	ng/L	P423586	
		Disulfoton	0.73	I	ng/L	P423586	
		Dithiopyr	0.60	U	ng/L	P423586	
		EPTC	1.2	U	ng/L	P423586	RPD

Field ID: G5SE0128 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2375227	EPA 8270E	Ethion	0.14	U	ng/L	P423586	
		Ethoprop	0.095	U	ng/L	P423586	MS
		Etridiazole	0.14	U	ng/L	P423586	RPD
		Fenamiphos	0.48	U	ng/L	P423586	
		Fenbuconazole	0.12	U	ng/L	P423586	
		Fipronil	0.24	U	ng/L	P423586	
		Fipronil Desulfinyl**	0.12	U	ng/L	P423586	
		Fipronil Sulfide	0.14	U	ng/L	P423586	
		Fipronil Sulfone	0.14	U	ng/L	P423586	
		Fluazifop-P-butyl	0.095	U	ng/L	P423586	
		Fludioxonil	0.12	U	ng/L	P423586	
		Flumioxazin	4.3	U	ng/L	P423586	
		Flutolanil	0.095	U	ng/L	P423586	
		Fluxapyroxad	0.11	I	ng/L	P423586	
		Fonofos	0.19	U	ng/L	P423586	MS
		Hexazinone	0.48	U	ng/L	P423586	
		Imazalil	0.71	U	ng/L	P423586	
		Iprodione	0.57	U	ng/L	P423586	
		Loratadine**	0.33	U	ng/L	P423586	
		Malathion	0.33	U	ng/L	P423586	
		Metalaxyl	0.71	U	ng/L	P423586	
		Metolachlor	0.56	I	ng/L	P423586	
		Metribuzin	1.4	U	ng/L	P423586	
		Mevinphos	1.0	U	ng/L	P423586	
		Molinate	0.29	U	ng/L	P423586	
		Myclobutanil	0.24	U	ng/L	P423586	
		Naled	1.4	U	ng/L	P423586	
		Napropamide	0.38	U	ng/L	P423586	
		Norflurazon	0.48	U	ng/L	P423586	
		Oxadiazon	0.29	U	ng/L	P423586	
		Oxyfluorfen	0.14	U	ng/L	P423586	
		Parathion Ethyl	0.24	UJ	ng/L	P423586	LCS, MS
		Parathion Methyl	0.52	UJ	ng/L	P423586	LCS, MS
		Pendimethalin	0.95	U	ng/L	P423586	
		Phenytoin**	3.3	U	ng/L	P423586	
		Phorate	0.50	U	ng/L	P423586	
		Prodiamine	0.17	U	ng/L	P423586	
		Prometon	0.86	U	ng/L	P423586	
		Prometryn	0.19	U	ng/L	P423586	
		Pronamide	0.14	U	ng/L	P423586	
		Propanil	0.16	I	ng/L	P423586	
		Propargite	1.4	U	ng/L	P423586	
		Propiconazole	0.48	U	ng/L	P423586	
		Pyraflufen Ethyl	0.24	U	ng/L	P423586	
		Pyridaben	0.43	U	ng/L	P423586	

Field ID: G5SE0128 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2375227	EPA 8270E	Pyriproxyfen	0.12	U	ng/L	P423586	
		Simazine	0.48	U	ng/L	P423586	
		Stirophos	0.12	U	ng/L	P423586	
		Sulfentrazone	0.48	U	ng/L	P423586	
		Tebuconazole	0.48	U	ng/L	P423586	
		Terbufos	0.095	U	ng/L	P423586	MS
		Terbuthylazine	0.40	U	ng/L	P423586	
		Thiobencarb	0.57	U	ng/L	P423586	
		Triadimefon	0.24	U	ng/L	P423586	

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.

Sample Location: Gulf Of Mexico near Hammer Point **Collection Date/Time: 12/13/2022 10:00**

Field ID: G5SE0121 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2375216	EPA 180.1 Rev. 2.0	Turbidity	1.3		NTU	P423537	
	SM 2320 B-2011	Total Alkalinity	144		mg CaCO3/L	P423947	
	SM 2540 D-2015	TSS	4	I	mg/L	P423788	
	SM 4500-F- C-2011	Fluoride	1.1		mg F/L	P424213	
2375220	EPA 350.1 Rev. 2.0	Ammonia-N	0.085		mg N/L	P424072	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.53		mg N/L	P423661	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.041		mg N/L	P423770	
	EPA 365.1 Rev. 2.0	Total-P	0.008	I	mg P/L	P423570	
	SM 5310 B-2011	Organic Carbon	6.4		mg C/L	P423744	
2375228	EPA 8270E	Oxybenzone**	9.5	U	ng/L	P423586	
		Acetochlor	0.24	U	ng/L	P423586	
		Octinoxate**	19	U	ng/L	P423586	
		Alachlor	0.24	U	ng/L	P423586	
		Avobenzone**	95	U	ng/L	P423586	
		Ametryn	0.57	U	ng/L	P423586	
		Atrazine	0.77	I	ng/L	P423586	
		PBDE-47**	3.8	U	ng/L	P423586	
		Atrazine Desethyl	1.4	U	ng/L	P423586	
		PBDE-99**	4.8	U	ng/L	P423586	
		Azinphos Methyl	1.9	U	ng/L	P423586	
		Tri-o-cresyl Phosphate**	5.7	U	ng/L	P423586	
		Azoxystrobin	0.48	U	ng/L	P423586	
		Bromacil	0.48	U	ng/L	P423586	
		2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)**	11	U	ng/L	P423586	
		Butylate	0.38	U	ng/L	P423586	
		Dechlorane Plus**	29	U	ng/L	P423586	
		Caffeine**	7.1	U	ng/L	P423586	
		Carbophenothion	0.19	U	ng/L	P423586	
		Carfentrazone Ethyl	0.095	U	ng/L	P423586	
		Chlorfenapyr	0.17	U	ng/L	P423586	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P423586	
		Chlorpyrifos Methyl	0.048	UJ	ng/L	P423586	LCS, MS
		Coumaphos	0.48	U	ng/L	P423586	
		Cyanazine	3.1	U	ng/L	P423586	
		Cyprodinil	0.095	U	ng/L	P423586	
		Demeton	1.4	U	ng/L	P423586	
		Diazinon	0.12	U	ng/L	P423586	
		Difenoconazole	0.57	U	ng/L	P423586	
		Dimethenamid	0.095	U	ng/L	P423586	
		Dimethomorph	0.17	U	ng/L	P423586	
		Disulfoton	0.48	U	ng/L	P423586	
		Dithiopyr	0.60	U	ng/L	P423586	
		EPTC	1.2	U	ng/L	P423586	RPD

Field ID: G5SE0121 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2375228	EPA 8270E	Ethion	0.14	U	ng/L	P423586	
		Ethoprop	0.095	U	ng/L	P423586	MS
		Etridiazole	0.14	U	ng/L	P423586	RPD
		Fenamiphos	0.48	U	ng/L	P423586	
		Fenbuconazole	0.12	U	ng/L	P423586	
		Fipronil	0.24	U	ng/L	P423586	
		Fipronil Desulfinyl**	0.12	U	ng/L	P423586	
		Fipronil Sulfide	0.14	U	ng/L	P423586	
		Fipronil Sulfone	0.14	U	ng/L	P423586	
		Fluazifop-P-butyl	0.095	U	ng/L	P423586	
		Fludioxonil	0.12	U	ng/L	P423586	
		Flumioxazin	4.3	U	ng/L	P423586	
		Flutolanil	0.095	U	ng/L	P423586	
		Fluxapyroxad	0.12	I	ng/L	P423586	
		Fonofos	0.19	U	ng/L	P423586	MS
		Hexazinone	0.48	U	ng/L	P423586	
		Imazalil	0.71	U	ng/L	P423586	
		Iprodione	0.57	U	ng/L	P423586	
		Loratadine**	0.33	U	ng/L	P423586	
		Malathion	0.33	U	ng/L	P423586	
		Metalaxyl	0.71	U	ng/L	P423586	
		Metolachlor	0.33	U	ng/L	P423586	
		Metribuzin	1.4	U	ng/L	P423586	
		Mevinphos	1.0	U	ng/L	P423586	
		Molinate	0.29	U	ng/L	P423586	
		Myclobutanil	0.24	U	ng/L	P423586	
		Naled	1.4	U	ng/L	P423586	
		Napropamide	0.38	U	ng/L	P423586	
		Norflurazon	0.48	U	ng/L	P423586	
		Oxadiazon	0.29	U	ng/L	P423586	
		Oxyfluorfen	0.14	U	ng/L	P423586	
		Parathion Ethyl	0.24	UJ	ng/L	P423586	LCS, MS
		Parathion Methyl	0.52	UJ	ng/L	P423586	LCS, MS
		Pendimethalin	0.95	U	ng/L	P423586	
		Phenytoin**	3.3	U	ng/L	P423586	
		Phorate	0.50	U	ng/L	P423586	
		Prodiamine	0.17	U	ng/L	P423586	
		Prometon	0.86	U	ng/L	P423586	
		Prometryn	0.19	U	ng/L	P423586	
		Pronamide	0.14	U	ng/L	P423586	
		Propanil	0.12	U	ng/L	P423586	
		Propargite	1.4	U	ng/L	P423586	
		Propiconazole	0.48	U	ng/L	P423586	
		Pyraflufen Ethyl	0.24	U	ng/L	P423586	
		Pyridaben	0.43	U	ng/L	P423586	

Field ID: G5SE0121 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2375228	EPA 8270E	Pyriproxyfen	0.12	U	ng/L	P423586	
		Simazine	0.48	U	ng/L	P423586	
		Stirophos	0.12	U	ng/L	P423586	
		Sulfentrazone	0.48	U	ng/L	P423586	
		Tebuconazole	0.48	U	ng/L	P423586	
		Terbufos	0.095	U	ng/L	P423586	MS
		Terbuthylazine	0.40	U	ng/L	P423586	
		Thiobencarb	0.57	U	ng/L	P423586	
		Triadimefon	0.24	U	ng/L	P423586	

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.

Sample Location: Buttonwood Sound South of MM 100 **Collection Date/Time: 12/13/2022 10:15**

Field ID: G5SE0118 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2375217	EPA 180.1 Rev. 2.0	Turbidity	0.40	I	NTU	P423537	
	SM 2320 B-2011	Total Alkalinity	148		mg CaCO3/L	P423947	
	SM 2540 D-2015	TSS	4	I	mg/L	P423788	
	SM 4500-F- C-2011	Fluoride	1.1		mg F/L	P424213	
2375221	EPA 350.1 Rev. 2.0	Ammonia-N	0.037		mg N/L	P424076	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.50		mg N/L	P423664	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.017		mg N/L	P423770	
	EPA 365.1 Rev. 2.0	Total-P	0.007	I	mg P/L	P423570	
	SM 5310 B-2011	Organic Carbon	6.4		mg C/L	P423744	
2375229	EPA 8270E	Oxybenzone**	9.5	U	ng/L	P423586	
		Acetochlor	0.24	U	ng/L	P423586	
		Octinoxate**	19	U	ng/L	P423586	
		Alachlor	0.24	U	ng/L	P423586	
		Avobenzone**	95	U	ng/L	P423586	
		Ametryn	0.57	U	ng/L	P423586	
		Atrazine	0.75	I	ng/L	P423586	
		PBDE-47**	3.8	U	ng/L	P423586	
		Atrazine Desethyl	1.4	U	ng/L	P423586	
		PBDE-99**	4.7	U	ng/L	P423586	
		Azinphos Methyl	1.9	U	ng/L	P423586	
		Tri-o-cresyl Phosphate**	5.7	U	ng/L	P423586	
		Azoxystrobin	0.47	U	ng/L	P423586	
		Bromacil	0.47	U	ng/L	P423586	
		2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)**	11	U	ng/L	P423586	
		Butylate	0.38	U	ng/L	P423586	
		Dechlorane Plus**	28	U	ng/L	P423586	
		Caffeine**	7.1	U	ng/L	P423586	
		Carbophenothion	0.19	U	ng/L	P423586	
		Carfentrazone Ethyl	0.095	U	ng/L	P423586	
		Chlorfenapyr	0.17	U	ng/L	P423586	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P423586	
		Chlorpyrifos Methyl	0.047	UJ	ng/L	P423586	LCS, MS
		Coumaphos	0.47	U	ng/L	P423586	
		Cyanazine	3.1	U	ng/L	P423586	
		Cyprodinil	0.095	U	ng/L	P423586	
		Demeton	1.4	U	ng/L	P423586	
		Diazinon	0.12	U	ng/L	P423586	
		Difenoconazole	0.57	U	ng/L	P423586	
		Dimethenamid	0.095	U	ng/L	P423586	
		Dimethomorph	0.17	U	ng/L	P423586	
		Disulfoton	0.47	U	ng/L	P423586	
		Dithiopyr	0.59	U	ng/L	P423586	
		EPTC	1.2	U	ng/L	P423586	RPD

Field ID: G5SE0118 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2375229	EPA 8270E	Ethion	0.14	U	ng/L	P423586	
		Ethoprop	0.095	U	ng/L	P423586	MS
		Etridiazole	0.14	U	ng/L	P423586	RPD
		Fenamiphos	0.47	U	ng/L	P423586	
		Fenbuconazole	0.12	U	ng/L	P423586	
		Fipronil	0.24	U	ng/L	P423586	
		Fipronil Desulfinyl**	0.12	U	ng/L	P423586	
		Fipronil Sulfide	0.14	U	ng/L	P423586	
		Fipronil Sulfone	0.14	U	ng/L	P423586	
		Fluazifop-P-butyl	0.095	U	ng/L	P423586	
		Fludioxonil	0.12	U	ng/L	P423586	
		Flumioxazin	4.3	U	ng/L	P423586	
		Flutolanil	0.095	U	ng/L	P423586	
		Fluxapyroxad	0.20	I	ng/L	P423586	
		Fonofos	0.19	U	ng/L	P423586	MS
		Hexazinone	0.47	U	ng/L	P423586	
		Imazalil	0.71	U	ng/L	P423586	
		Iprodione	0.57	U	ng/L	P423586	
		Loratadine**	0.33	U	ng/L	P423586	
		Malathion	0.33	U	ng/L	P423586	
		Metalaxyl	0.71	U	ng/L	P423586	
		Metolachlor	0.33	U	ng/L	P423586	
		Metribuzin	1.4	U	ng/L	P423586	
		Mevinphos	1.0	U	ng/L	P423586	
		Molinate	0.28	U	ng/L	P423586	
		Myclobutanil	0.24	U	ng/L	P423586	
		Naled	1.4	U	ng/L	P423586	
		Napropamide	0.38	U	ng/L	P423586	
		Norflurazon	0.47	U	ng/L	P423586	
		Oxadiazon	0.28	U	ng/L	P423586	
		Oxyfluorfen	0.14	U	ng/L	P423586	
		Parathion Ethyl	0.24	UJ	ng/L	P423586	LCS, MS
		Parathion Methyl	0.52	UJ	ng/L	P423586	LCS, MS
		Pendimethalin	0.95	U	ng/L	P423586	
		Phenytoin**	3.3	U	ng/L	P423586	
		Phorate	0.50	U	ng/L	P423586	
		Prodiamine	0.17	U	ng/L	P423586	
		Prometon	0.85	U	ng/L	P423586	
		Prometryn	0.19	U	ng/L	P423586	
		Pronamide	0.14	U	ng/L	P423586	
		Propanil	0.24	I	ng/L	P423586	
		Propargite	1.4	U	ng/L	P423586	
		Propiconazole	0.47	U	ng/L	P423586	
		Pyraflufen Ethyl	0.24	U	ng/L	P423586	
		Pyridaben	0.43	U	ng/L	P423586	

Field ID: G5SE0118 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2375229	EPA 8270E	Pyriproxyfen	0.12	U	ng/L	P423586	
		Simazine	0.47	U	ng/L	P423586	
		Stirophos	0.12	U	ng/L	P423586	
		Sulfentrazone	0.47	U	ng/L	P423586	
		Tebuconazole	0.47	U	ng/L	P423586	
		Terbufos	0.095	U	ng/L	P423586	MS
		Terbuthylazine	0.40	U	ng/L	P423586	
		Thiobencarb	0.57	U	ng/L	P423586	
		Triadimefon	0.24	U	ng/L	P423586	

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.

Sample Location: Gulf of Mexico near Buttonwood Bay **Collection Date/Time: 12/13/2022 10:45**

Field ID: G5SE0119 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2375218	EPA 180.1 Rev. 2.0	Turbidity	0.95	I	NTU	P423537	
	SM 2320 B-2011	Total Alkalinity	148		mg CaCO3/L	P423947	
	SM 2540 D-2015	TSS	4	I A	mg/L	P423789	
	SM 4500-F- C-2011	Fluoride	1.1		mg F/L	P424213	
2375222	EPA 350.1 Rev. 2.0	Ammonia-N	0.11		mg N/L	P424076	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.65		mg N/L	P423664	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.050		mg N/L	P423770	
	EPA 365.1 Rev. 2.0	Total-P	0.007	I	mg P/L	P423570	
	SM 5310 B-2011	Organic Carbon	6.6		mg C/L	P424079	
2375230	EPA 8270E	Oxybenzone**	9.4	U	ng/L	P423586	
		Acetochlor	0.23	U	ng/L	P423586	
		Octinoxate**	19	U	ng/L	P423586	
		Alachlor	0.23	U	ng/L	P423586	
		Avobenzone**	94	U	ng/L	P423586	
		Ametryn	0.56	U	ng/L	P423586	
		Atrazine	0.71	I	ng/L	P423586	
		PBDE-47**	3.8	U	ng/L	P423586	
		Atrazine Desethyl	1.4	U	ng/L	P423586	
		PBDE-99**	4.7	U	ng/L	P423586	
		Azinphos Methyl	1.9	U	ng/L	P423586	
		Tri-o-cresyl Phosphate**	5.6	U	ng/L	P423586	
		Azoxystrobin	0.47	U	ng/L	P423586	
		Bromacil	0.47	U	ng/L	P423586	
		2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)**	11	U	ng/L	P423586	
		Butylate	0.38	U	ng/L	P423586	
		Dechlorane Plus**	28	U	ng/L	P423586	
		Caffeine**	7.0	U	ng/L	P423586	
		Carbophenothion	0.19	U	ng/L	P423586	
		Carfentrazone Ethyl	0.094	U	ng/L	P423586	
		Chlorfenapyr	0.16	U	ng/L	P423586	
		Chlorpyrifos Ethyl	0.23	U	ng/L	P423586	
		Chlorpyrifos Methyl	0.047	UJ	ng/L	P423586	LCS, MS
		Coumaphos	0.47	U	ng/L	P423586	
		Cyanazine	3.1	U	ng/L	P423586	
		Cyprodinil	0.094	U	ng/L	P423586	
		Demeton	1.4	U	ng/L	P423586	
		Diazinon	0.12	U	ng/L	P423586	
		Difenoconazole	0.56	U	ng/L	P423586	
		Dimethenamid	0.094	U	ng/L	P423586	
		Dimethomorph	0.16	U	ng/L	P423586	
		Disulfoton	0.47	U	ng/L	P423586	
		Dithiopyr	0.59	U	ng/L	P423586	
		EPTC	1.2	U	ng/L	P423586	RPD

Field ID: G5SE0119 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2375230	EPA 8270E	Ethion	0.14	U	ng/L	P423586	
		Ethoprop	0.094	U	ng/L	P423586	MS
		Etridiazole	0.14	U	ng/L	P423586	RPD
		Fenamiphos	0.47	U	ng/L	P423586	
		Fenbuconazole	0.12	U	ng/L	P423586	
		Fipronil	0.23	U	ng/L	P423586	
		Fipronil Desulfinyl**	0.12	U	ng/L	P423586	
		Fipronil Sulfide	0.14	U	ng/L	P423586	
		Fipronil Sulfone	0.14	U	ng/L	P423586	
		Fluazifop-P-butyl	0.094	U	ng/L	P423586	
		Fludioxonil	0.12	U	ng/L	P423586	
		Flumioxazin	4.2	U	ng/L	P423586	
		Flutolanil	0.094	U	ng/L	P423586	
		Fluxapyroxad	0.18	I	ng/L	P423586	
		Fonofos	0.19	U	ng/L	P423586	MS
		Hexazinone	0.47	U	ng/L	P423586	
		Imazalil	0.70	U	ng/L	P423586	
		Iprodione	0.56	U	ng/L	P423586	
		Loratadine**	0.33	U	ng/L	P423586	
		Malathion	0.33	U	ng/L	P423586	
		Metalaxyl	0.70	U	ng/L	P423586	
		Metolachlor	0.33	U	ng/L	P423586	
		Metribuzin	1.4	U	ng/L	P423586	
		Mevinphos	0.99	U	ng/L	P423586	
		Molinate	0.28	U	ng/L	P423586	
		Myclobutanil	0.23	U	ng/L	P423586	
		Naled	1.4	U	ng/L	P423586	
		Napropamide	0.38	U	ng/L	P423586	
		Norflurazon	0.47	U	ng/L	P423586	
		Oxadiazon	0.28	U	ng/L	P423586	
		Oxyfluorfen	0.14	U	ng/L	P423586	
		Parathion Ethyl	0.23	UJ	ng/L	P423586	LCS, MS
		Parathion Methyl	0.52	UJ	ng/L	P423586	LCS, MS
		Pendimethalin	0.94	U	ng/L	P423586	
		Phenytoin**	3.3	U	ng/L	P423586	
		Phorate	0.49	U	ng/L	P423586	
		Prodiamine	0.16	U	ng/L	P423586	
		Prometon	0.85	U	ng/L	P423586	
		Prometryn	0.19	U	ng/L	P423586	
		Pronamide	0.14	U	ng/L	P423586	
		Propanil	0.12	U	ng/L	P423586	
		Propargite	1.4	U	ng/L	P423586	
		Propiconazole	0.47	U	ng/L	P423586	
		Pyraflufen Ethyl	0.23	U	ng/L	P423586	
		Pyridaben	0.42	U	ng/L	P423586	

Field ID: G5SE0119 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2375230	EPA 8270E	Pyriproxyfen	0.12	U	ng/L	P423586	
		Simazine	0.47	U	ng/L	P423586	
		Stirophos	0.12	U	ng/L	P423586	
		Sulfentrazone	0.47	U	ng/L	P423586	
		Tebuconazole	0.47	U	ng/L	P423586	
		Terbufos	0.094	U	ng/L	P423586	MS
		Terbuthylazine	0.40	U	ng/L	P423586	
		Thiobencarb	0.56	U	ng/L	P423586	
		Triadimefon	0.23	U	ng/L	P423586	

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.

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P423536

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P423537

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P424072

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P424076

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423661

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423664

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P423770

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P423771

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P423570

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P423586

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P423586

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P423586

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P423586

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: SM 2320 B-2011
Batch ID: P423947

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

Reference Method: SM 2540 D-2015
Batch ID: P423788

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P423789

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P424213

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P423744

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

Quality Assurance Report
Method Blank Results

Reference Method: SM 5310 B-2011
Batch ID: P424079

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P423536

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

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P423537

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P424072

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P424076

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	96.8		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423661

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	107		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423664

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P423770

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	95.5		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P423771

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	95.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P423570

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P423586

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	83.3		P	42 - 162
Acetochlor	106		P	69 - 123
Alachlor	94.0		P	65 - 118
Ametryn	138		P	58 - 141
Atrazine	111		P	73 - 118
Atrazine Desethyl	94.0		P	32 - 125
Avobenzone	108		P	40 - 203
Azinphos Methyl	136		P	36 - 197
Azoxystrobin	154		P	58 - 226
Bromacil	91.1		P	48 - 120
Butylate	67.0		P	27 - 85.0
Caffeine	89.7		P	40 - 137
Carbophenothion	112		P	54 - 132
Carfentrazone Ethyl	105		P	60 - 142
Chlorfenapyr	82.2		P	53 - 117
Chlorpyrifos Ethyl	99.7		P	59 - 116
Chlorpyrifos Methyl	61.7		F	66 - 119
Coumaphos	99.2		P	11 - 234
Cyanazine	190		P	61 - 248
Cyprodinil	126		P	50 - 147
Dechlorane Plus	110		P	47 - 182
Demeton	110		P	30 - 138
Diazinon	118		P	67 - 126
Difenoconazole	103		P	38 - 205
Dimethenamid	71.9		P	57 - 111
Dimethomorph	174		P	16 - 212
Disulfoton	114		P	46 - 126
Dithiopyr	95.6		P	62 - 115
EPTC	61.7		P	28 - 80.0
Ethion	47.8		P	24 - 122
Ethoprop	71.8		P	62 - 113
Etridiazole	85.7		P	28 - 92.0
Fenamiphos	76.6		P	57 - 128
Fenbuconazole	117		P	52 - 155
Fipronil	91.6		P	63 - 130
Fipronil Desulfinyl	102		P	61 - 130
Fipronil Sulfide	95.9		P	56 - 117
Fipronil Sulfone	98.5		P	52 - 118
Fluazifop-P-butyl	100		P	61 - 128
Fludioxonil	85.1		P	59 - 129
Flumioxazin	158		P	30 - 250
Flutolanil	93.0		P	53 - 127
Fluxapyroxad	94.2		P	42 - 132
Fonofos	65.0		P	61 - 110
Hexazinone	112		P	46 - 139
Imazalil	106		P	40 - 139
Iprodione	85.0		P	40 - 146
Loratadine	183		P	10 - 224
Malathion	107		P	61 - 135
Metalaxyl	94.9		P	58 - 121
Metolachlor	105		P	64 - 118
Metribuzin	117		P	45 - 245

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P423586

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Mevinphos	105		P	49 - 118
Molinate	77.4		P	42 - 92.0
Myclobutanil	93.1		P	55 - 127
Naled	109		P	10 - 114
Napropamide	72.7		P	39 - 121
Norflurazon	117		P	55 - 129
Octinoxate	93.1		P	26 - 166
Oxadiazon	103		P	54 - 115
Oxybenzone	83.8		P	49 - 135
Oxyfluorfen	82.4		P	64 - 139
Parathion Ethyl	114		F	70 - 111
Parathion Methyl	160		F	76 - 136
PBDE-47	87.2		P	41 - 148
PBDE-99	82.7		P	38 - 147
Pendimethalin	72.3		P	52 - 118
Phenytoin	17.5		P	10 - 162
Phorate	107		P	40 - 122
Prodiamine	72.6		P	26 - 141
Prometon	74.3		P	54 - 122
Prometryn	80.5		P	61 - 128
Pronamide	88.7		P	72 - 121
Propanil	103		P	45 - 144
Propargite	66.6		P	10 - 199
Propiconazole	60.4		P	56 - 127
Pyraflufen Ethyl	82.3		P	56 - 140
Pyridaben	120		P	26 - 211
Pyriproxyfen	95.9		P	33 - 194
Simazine	94.8		P	67 - 121
Stirophos	59.7		P	20 - 142
Sulfentrazone	58.6		P	21 - 144
Tebuconazole	45.3		P	10 - 122
Terbufos	81.0		P	60 - 129
Terbuthylazine	90.5		P	69 - 113
Thiobencarb	85.1		P	51 - 120
Tri-o-cresyl Phosphate	90.0		P	49 - 150
Triadimefon	84.5		P	56 - 114

Reference Method: SM 2320 B-2011
Batch ID: P423947

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.2		P	90 - 110

Reference Method: SM 2540 D-2015
Batch ID: P423788

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	102		P	85 - 106

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 2540 D-2015
Batch ID: P423789

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	94.4		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P424213

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.2		P	96 - 104

Reference Method: SM 5310 B-2011
Batch ID: P423744

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

Reference Method: SM 5310 B-2011
Batch ID: P424079

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.0		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P424072

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2375219	Ammonia-N	103	104	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P424076

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2375221	Ammonia-N	101	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423661

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2374718	Kjeldahl Nitrogen	107	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423664

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2375386	Kjeldahl Nitrogen	103	106	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P423770

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2374821	NO2NO3-N	95.1	96.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P423771

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2374715	NO2NO3-N	96.9	97.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P423570

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2375168	Total-P	97.6	99.1	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P423586

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2374737	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	68.3	61.9	P/P	26 - 165
2374737	Acetochlor	103	111	P/P	67 - 124
2374737	Alachlor	87.7	97.3	P/P	60 - 120
2374737	Ametryn	118	141	P/P	54 - 216
2374737	Atrazine	115	126	P/P	66 - 128
2374737	Atrazine Desethyl	84.2	97.4	P/P	15 - 122
2374737	Avobenzone	97.2	89.4	P/P	37 - 178
2374737	Azinphos Methyl	166	187	P/P	40 - 292
2374737	Azoxystrobin	137	149	P/P	35 - 220
2374737	Bromacil	99.1	113	P/P	45 - 127

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P423586

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2374737	Butylate	48.6	73.3	P/P	20 - 83.0
2374737	Caffeine	82.6	84.9	P/P	10 - 194
2374737	Carbophenothion	109	116	P/P	57 - 127
2374737	Carfentrazone Ethyl	102	113	P/P	51 - 141
2374737	Chlorfenapyr	96.0	95.6	P/P	46 - 111
2374737	Chlorpyrifos Ethyl	99.1	105	P/P	52 - 120
2374737	Chlorpyrifos Methyl	143	151	F/F	63 - 119
2374737	Coumaphos	97.3	117	P/P	10 - 228
2374737	Cyanazine	185	184	P/P	59 - 241
2374737	Cyprodinil	118	130	P/P	47 - 146
2374737	Dechlorane Plus	92.8	88.5	P/P	50 - 150
2374737	Demeton	123	132	P/P	40 - 136
2374737	Diazinon	118	126	P/P	69 - 132
2374737	Difenoconazole	141	165	P/P	57 - 258
2374737	Dimethenamid	77.3	83.9	P/P	54 - 110
2374737	Dimethomorph	167	198	P/P	28 - 210
2374737	Disulfoton	130	124	P/P	43 - 133
2374737	Dithiopyr	98.6	101	P/P	39 - 116
2374737	EPTC	39.5	65.6	P/P	20 - 78.0
2374737	Ethion	68.3	56.0	P/P	17 - 119
2374737	Ethoprop	144	160	F/F	66 - 120
2374737	Etridiazole	66.1	95.3	P/P	28 - 96.0
2374737	Fenamiphos	98.5	103	P/P	41 - 126
2374737	Fenbuconazole	112	128	P/P	42 - 169
2374737	Fipronil	91.4	99.7	P/P	61 - 132
2374737	Fipronil Desulfinyl	97.3	103	P/P	56 - 132
2374737	Fipronil Sulfide	86.3	85.7	P/P	48 - 119
2374737	Fipronil Sulfone	74.9	81.2	P/P	42 - 131
2374737	Fluazifop-P-butyl	91.1	95.6	P/P	53 - 131
2374737	Fludioxonil	87.6	92.3	P/P	56 - 127
2374737	Flumioxazin	201	244	P/P	19 - 300
2374737	Flutolanil	111	115	P/P	41 - 127
2374737	Fluxapyroxad	96.2	108	P/P	42 - 172
2374737	Fonofos	136	139	F/F	59 - 113
2374737	Hexazinone	105	111	P/P	66 - 122
2374737	Imazalil	106	102	P/P	21 - 283
2374737	Iprodione	97.2	105	P/P	43 - 150
2374737	Loratadine	158	178	P/P	23 - 201
2374737	Malathion	109	125	P/P	58 - 136
2374737	Metalaxyl	87.6	95.9	P/P	55 - 120
2374737	Metolachlor	104	111	P/P	57 - 121
2374737	Metribuzin	117	129	P/P	58 - 294
2374737	Mevinphos	94.7	122	P/P	50 - 126
2374737	Molinate	67.5	86.2	P/P	42 - 93.0
2374737	Myclobutanil	93.4	100	P/P	55 - 125
2374737	Naled	82.8	106	P/P	18 - 200
2374737	Napropamide	94.3	95.7	P/P	39 - 110
2374737	Norflurazon	79.9	81.4	P/P	48 - 128
2374737	Octinoxate	76.2	68.3	P/P	21 - 159
2374737	Oxadiazon	99.6	104	P/P	43 - 112
2374737	Oxybenzone	67.0	62.6	P/P	41 - 142
2374737	Oxyfluorfen	80.9	78.2	P/P	64 - 153

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P423586

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2374737	Parathion Ethyl	108	126	P/F	69 - 114
2374737	Parathion Methyl	155	158	F/F	79 - 139
2374737	PBDE-47	73.7	68.1	P/P	27 - 144
2374737	PBDE-99	73.5	68.3	P/P	18 - 150
2374737	Pendimethalin	93.0	93.6	P/P	50 - 139
2374737	Phenytoin	37.1	42.1	P/P	10 - 146
2374737	Phorate	111	121	P/P	54 - 161
2374737	Prodiamine	42.8	45.1	P/P	30 - 161
2374737	Prometon	87.3	77.6	P/P	45 - 134
2374737	Prometryn	93.2	83.3	P/P	45 - 137
2374737	Pronamide	109	116	P/P	65 - 133
2374737	Propanil	112	121	P/P	49 - 142
2374737	Propargite	87.5	93.0	P/P	10 - 203
2374737	Propiconazole	96.1	131	P/P	38 - 146
2374737	Pyraflufen Ethyl	90.1	113	P/P	34 - 153
2374737	Pyridaben	129	140	P/P	12 - 192
2374737	Pyriproxyfen	108	108	P/P	33 - 180
2374737	Simazine	102	114	P/P	51 - 157
2374737	Stirophos	83.7	93.8	P/P	10 - 128
2374737	Sulfentrazone	84.7	97.1	P/P	53 - 186
2374737	Tebuconazole	65.6	66.8	P/P	10 - 133
2374737	Terbufos	172	176	F/F	65 - 139
2374737	Terbuthylazine	91.7	97.9	P/P	66 - 117
2374737	Thiobencarb	85.3	97.3	P/P	51 - 119
2374737	Tri-o-cresyl Phosphate	78.8	70.1	P/P	31 - 144
2374737	Triadimefon	96.1	99.9	P/P	48 - 119

Reference Method: SM 4500-F- C-2011
Batch ID: P424213

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2375965	Fluoride	98.2	98.8	P/P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P423744

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2375182	Organic Carbon	94.2	95.2	P/P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P424079

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2376054	Organic Carbon	88.6	88.5	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P423536

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2374898	Turbidity	0.531	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P423537

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2375235	Turbidity	10.0	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P424072

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2375219	Ammonia-N	0.360	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P424076

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2375221	Ammonia-N	0.567	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423661

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2374718	Kjeldahl Nitrogen	4.64	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423664

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2375386	Kjeldahl Nitrogen	2.22	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P423770

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2374821	NO2NO3-N	1.57	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P423771

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2374715	NO2NO3-N	0.995	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P423570

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2375168	Total-P	1.32	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P423586

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2374737	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	5.38	Spike	P	0 - 37
2374737	Acetochlor	7.32	Spike	P	0 - 28
2374737	Alachlor	10.4	Spike	P	0 - 30
2374737	Ametryn	17.6	Spike	P	0 - 32
2374737	Atrazine	7.88	Spike	P	0 - 41
2374737	Atrazine Desethyl	14.5	Spike	P	0 - 36
2374737	Avobenzone	8.36	Spike	P	0 - 36
2374737	Azinphos Methyl	11.6	Spike	P	0 - 75
2374737	Azoxystrobin	8.33	Spike	P	0 - 39
2374737	Bromacil	13.4	Spike	P	0 - 33
2374737	Butylate	40.5	Spike	P	0 - 44
2374737	Caffeine	2.74	Spike	P	0 - 74
2374737	Carbophenothion	6.37	Spike	P	0 - 25
2374737	Carfentrazone Ethyl	10.2	Spike	P	0 - 27
2374737	Chlorfenapyr	0.418	Spike	P	0 - 24
2374737	Chlorpyrifos Ethyl	5.61	Spike	P	0 - 26
2374737	Chlorpyrifos Methyl	5.46	Spike	P	0 - 26
2374737	Coumaphos	18.4	Spike	P	0 - 28
2374737	Cyanazine	0.819	Spike	P	0 - 48
2374737	Cyprodinil	9.69	Spike	P	0 - 29
2374737	Dechlorane Plus	4.79	Spike	P	0 - 30
2374737	Demeton	7.38	Spike	P	0 - 33
2374737	Diazinon	6.51	Spike	P	0 - 29
2374737	Difenoconazole	15.8	Spike	P	0 - 34
2374737	Dimethenamid	8.24	Spike	P	0 - 39
2374737	Dimethomorph	17.0	Spike	P	0 - 51
2374737	Disulfoton	4.46	Spike	P	0 - 30
2374737	Dithiopyr	2.37	Spike	P	0 - 26
2374737	EPTC	49.7	Spike	F	0 - 43
2374737	Ethion	19.8	Spike	P	0 - 79
2374737	Ethoprop	11.1	Spike	P	0 - 29
2374737	Etridiazole	36.1	Spike	F	0 - 33
2374737	Fenamiphos	4.52	Spike	P	0 - 40
2374737	Fenbuconazole	13.3	Spike	P	0 - 74
2374737	Fipronil	8.70	Spike	P	0 - 29
2374737	Fipronil Desulfinyl	5.40	Spike	P	0 - 32
2374737	Fipronil Sulfide	0.641	Spike	P	0 - 30
2374737	Fipronil Sulfone	8.12	Spike	P	0 - 33
2374737	Fluazifop-P-butyl	4.79	Spike	P	0 - 38
2374737	Fludioxonil	5.26	Spike	P	0 - 29
2374737	Flumioxazin	19.0	Spike	P	0 - 51
2374737	Flutolanil	3.86	Spike	P	0 - 25
2374737	Fluxapyroxad	11.5	Spike	P	0 - 45
2374737	Fonofos	2.41	Spike	P	0 - 27

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P423586

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2374737	Hexazinone	5.27	Spike	P	0 - 30
2374737	Imazalil	4.24	Spike	P	0 - 100
2374737	Iprodione	7.87	Spike	P	0 - 33
2374737	Loratadine	11.7	Spike	P	0 - 56
2374737	Malathion	13.2	Spike	P	0 - 37
2374737	Metalaxyl	9.11	Spike	P	0 - 40
2374737	Metolachlor	6.56	Spike	P	0 - 29
2374737	Metribuzin	9.88	Spike	P	0 - 45
2374737	Mevinphos	25.6	Spike	P	0 - 29
2374737	Molinate	24.4	Spike	P	0 - 33
2374737	Myclobutanil	6.82	Spike	P	0 - 26
2374737	Naled	24.9	Spike	P	0 - 37
2374737	Napropamide	1.45	Spike	P	0 - 44
2374737	Norflurazon	1.92	Spike	P	0 - 30
2374737	Octinoxate	11.0	Spike	P	0 - 45
2374737	Oxadiazon	4.56	Spike	P	0 - 28
2374737	Oxybenzone	6.87	Spike	P	0 - 46
2374737	Oxyfluorfen	3.44	Spike	P	0 - 28
2374737	Parathion Ethyl	14.9	Spike	P	0 - 31
2374737	Parathion Methyl	2.22	Spike	P	0 - 29
2374737	PBDE-47	7.98	Spike	P	0 - 36
2374737	PBDE-99	7.36	Spike	P	0 - 40
2374737	Pendimethalin	0.664	Spike	P	0 - 33
2374737	Phenytoin	12.8	Spike	P	0 - 100
2374737	Phorate	9.05	Spike	P	0 - 36
2374737	Prodiamine	5.26	Spike	P	0 - 71
2374737	Prometon	11.8	Spike	P	0 - 36
2374737	Prometryn	11.2	Spike	P	0 - 28
2374737	Pronamide	6.26	Spike	P	0 - 24
2374737	Propanil	7.71	Spike	P	0 - 28
2374737	Propargite	6.15	Spike	P	0 - 43
2374737	Propiconazole	30.6	Spike	P	0 - 33
2374737	Pyraflufen Ethyl	22.1	Spike	P	0 - 29
2374737	Pyridaben	8.60	Spike	P	0 - 30
2374737	Pyriproxyfen	0.142	Spike	P	0 - 79
2374737	Simazine	11.3	Spike	P	0 - 29
2374737	Stirophos	11.4	Spike	P	0 - 61
2374737	Sulfentrazone	13.6	Spike	P	0 - 33
2374737	Tebuconazole	1.78	Spike	P	0 - 69
2374737	Terbufos	2.14	Spike	P	0 - 29
2374737	Terbuthylazine	6.53	Spike	P	0 - 32
2374737	Thiobencarb	13.1	Spike	P	0 - 26
2374737	Tri-o-cresyl Phosphate	11.7	Spike	P	0 - 33
2374737	Triadimefon	3.83	Spike	P	0 - 28

Reference Method: SM 2320 B-2011
Batch ID: P423947

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2375965	Total Alkalinity	2.71	Sample	P	0 - 3.8

Quality Assurance Report
Precision

Reference Method: SM 4500-F- C-2011
Batch ID: P424213

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2375965	Fluoride	0.464	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P423744

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2375182	Organic Carbon	0.805	Spike	P	0 - 20

Reference Method: SM 5310 B-2011
Batch ID: P424079

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2376054	Organic Carbon	0.130	Spike	P	0 - 20

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

Quality Assurance Report
Surrogates

Lab Sample ID: 2375227
Field Sample ID: G5SE0128

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	59.8	P	20 - 200
EPA 8270E	Simazine-d10	82.3	P	62 - 142
EPA 8270E	Terbufos-d10	102	P	58 - 132
EPA 8270E	Terphenyl-d14	117	P	52 - 137

Lab Sample ID: 2375228
Field Sample ID: G5SE0121

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	58.0	P	20 - 200
EPA 8270E	Simazine-d10	83.6	P	62 - 142
EPA 8270E	Terbufos-d10	101	P	58 - 132
EPA 8270E	Terphenyl-d14	108	P	52 - 137

Lab Sample ID: 2375229
Field Sample ID: G5SE0118

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	64.5	P	20 - 200
EPA 8270E	Simazine-d10	86.4	P	62 - 142
EPA 8270E	Terbufos-d10	94.3	P	58 - 132
EPA 8270E	Terphenyl-d14	95.7	P	52 - 137

Lab Sample ID: 2375230
Field Sample ID: G5SE0119

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	62.5	P	20 - 200
EPA 8270E	Simazine-d10	84.2	P	62 - 142
EPA 8270E	Terbufos-d10	109	P	58 - 132
EPA 8270E	Terphenyl-d14	83.2	P	52 - 137

Quality Assurance Report
Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A116438
Included Lab Sample IDs: 2375215, 2375216, 2375217, 2375218

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	100	P/P	95 - 105
Turbidity	100	101	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A116508
Included Lab Sample IDs: 2375219, 2375220, 2375221, 2375222

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	105	104	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A116530
Included Lab Sample IDs: 2375227, 2375228, 2375229, 2375230

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	98.5		P	80 - 120
Avobenzone	93.6		P	80 - 120
Dechlorane Plus	95.7		P	80 - 120
Octinoxate	98.8		P	80 - 120
Oxybenzone	100		P	80 - 120
PBDE-47	107		P	80 - 120
PBDE-99	102		P	80 - 120
Tri-o-cresyl Phosphate	101		P	80 - 120

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A116548
Included Lab Sample IDs: 2375219, 2375220, 2375221, 2375222

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	103	96.5	P/P	90 - 110
Kjeldahl Nitrogen	95.8	97.8	P/P	90 - 110

Reference Method: SM 5310 B-2011
Run ID: A116560
Included Lab Sample IDs: 2375219, 2375220, 2375221

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	94.8	96.1	P/P	90 - 110
Organic Carbon	96.1	98.2	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A116570
Included Lab Sample IDs: 2375219, 2375220, 2375221, 2375222

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	95.5	94.0	P/P	90 - 110
NO2NO3-N	95.5	95.5	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: SM 2320 B-2011
Run ID: A116652
Included Lab Sample IDs: 2375215, 2375216, 2375217, 2375218

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.3	98.2	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A116693
Included Lab Sample IDs: 2375227, 2375228, 2375229, 2375230

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	106		P	80 - 120
Alachlor	101		P	80 - 120
Ametryn	99.8		P	80 - 120
Atrazine	100		P	80 - 120
Atrazine Desethyl	95.7		P	80 - 120
Azinphos Methyl	101		P	80 - 120
Azoxystrobin	101		P	80 - 120
Bromacil	93.2		P	80 - 120
Butylate	99.7		P	80 - 120
Caffeine	98.9		P	80 - 120
Carbophenothion	101		P	80 - 120
Carfentrazone Ethyl	102		P	80 - 120
Chlorfenapyr	98.3		P	80 - 120
Chlorpyrifos Ethyl	108		P	80 - 120
Chlorpyrifos Methyl	99.1		P	80 - 120
Coumaphos	103		P	80 - 120
Cyanazine	84.7		P	80 - 120
Cyprodinil	101		P	80 - 120
Demeton	96.2		P	80 - 120
Diazinon	101		P	80 - 120
Difenoconazole	101		P	80 - 120
Dimethenamid	105		P	80 - 120
Dimethomorph	87.2		P	80 - 120
Disulfoton	96.8		P	80 - 120
Dithiopyr	102		P	80 - 120
EPTC	99.6		P	80 - 120
Ethion	103		P	80 - 120
Ethoprop	96.4		P	80 - 120
Etridiazole	102		P	80 - 120
Fenamiphos	96.5		P	80 - 120
Fenbuconazole	101		P	80 - 120
Fipronil	96.3		P	80 - 120
Fipronil Desulfinyl	102		P	80 - 120
Fipronil Sulfide	85.3		P	80 - 120
Fipronil Sulfone	98.9		P	80 - 120
Fluazifop-P-butyl	103		P	80 - 120
Fludioxonil	105		P	80 - 120
Flumioxazin	104		P	80 - 120
Flutolanil	96.1		P	80 - 120
Fluxapyroxad	95.0		P	80 - 120
Fonofos	95.9		P	80 - 120
Hexazinone	98.9		P	80 - 120
Imazalil	99.8		P	80 - 120
Iprodione	100		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A116693
Included Lab Sample IDs: 2375227, 2375228, 2375229, 2375230

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Loratadine	93.7		P	80 - 120
Malathion	98.6		P	80 - 120
Metalaxyl	98.7		P	80 - 120
Metolachlor	106		P	80 - 120
Metribuzin	99.8		P	80 - 120
Mevinphos	106		P	80 - 120
Molinate	100		P	80 - 120
Myclobutanil	102		P	80 - 120
Naled	110		P	80 - 120
Napropamide	98.8		P	80 - 120
Norflurazon	93.4		P	80 - 120
Oxadiazon	97.7		P	80 - 120
Oxyfluorfen	104		P	80 - 120
Parathion Ethyl	101		P	80 - 120
Parathion Methyl	96.5		P	80 - 120
Pendimethalin	104		P	80 - 120
Phenytoin	106		P	80 - 120
Phorate	98.8		P	80 - 120
Prodiamine	99.6		P	80 - 120
Prometon	105		P	80 - 120
Prometryn	109		P	80 - 120
Pronamide	102		P	80 - 120
Propanil	91.3		P	80 - 120
Propargite	102		P	80 - 120
Propiconazole	95.5		P	80 - 120
Pyraflufen Ethyl	93.2		P	80 - 120
Pyridaben	101		P	80 - 120
Pyriproxyfen	99.3		P	80 - 120
Simazine	98.5		P	80 - 120
Stirophos	100		P	80 - 120
Sulfentrazone	92.8		P	80 - 120
Tebuconazole	99.5		P	80 - 120
Terbufos	95.6		P	80 - 120
Terbuthylazine	101		P	80 - 120
Thiobencarb	103		P	80 - 120
Triadimefon	110		P	80 - 120

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A116711
Included Lab Sample IDs: 2375219, 2375220, 2375221, 2375222

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.2	97.5	P/P	90 - 110
Ammonia-N	98.5	98.8	P/P	90 - 110

Reference Method: SM 5310 B-2011
Run ID: A116712
Included Lab Sample IDs: 2375222

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.9	94.7	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: SM 4500-F- C-2011
Run ID: A116769
Included Lab Sample IDs: 2375215, 2375216, 2375217, 2375218

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.0	97.2	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		Precision		
					LCS	SMP	MS
EPA 180.1 Rev. 2.0	Turbidity	102				0.531	
	Turbidity	102				10.0	
EPA 350.1 Rev. 2.0	Ammonia-N	96.2	103	104			0.360
	Ammonia-N	96.8	101	102			0.567
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	107	107	101			4.64
	Kjeldahl Nitrogen	109	103	106			2.22
EPA 353.2 Rev. 2.0	NO2NO3-N	95.5	95.1	96.6			1.57
	NO2NO3-N	95.5	96.9	97.9			0.995
EPA 365.1 Rev. 2.0	Total-P	104	97.6	99.1			1.32
EPA 8270E	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	83.3	68.3	61.9			5.38
	Acetochlor	106	103	111			7.32
	Alachlor	94.0	87.7	97.3			10.4
	Ametryn	138	118	141			17.6
	Atrazine	111	115	126			7.88
	Atrazine Desethyl	94.0	84.2	97.4			14.5
	Avobenzone	108	97.2	89.4			8.36
	Azinphos Methyl	136	166	187			11.6
	Azoxystrobin	154	137	149			8.33
	Bromacil	91.1	99.1	113			13.4
	Butylate	67.0	48.6	73.3			40.5
	Caffeine	89.7	82.6	84.9			2.74
	Carbophenothion	112	109	116			6.37
	Carfentrazone Ethyl	105	102	113			10.2
	Chlorfenapyr	82.2	96.0	95.6			0.418
	Chlorpyrifos Ethyl	99.7	99.1	105			5.61
	Chlorpyrifos Methyl	61.7	143	151			5.46
	Coumaphos	99.2	97.3	117			18.4
	Cyanazine	190	185	184			0.819
	Cyprodinil	126	118	130			9.69
	Dechlorane Plus	110	92.8	88.5			4.79
	Demeton	110	123	132			7.38
	Diazinon	118	118	126			6.51
	Difenoconazole	103	141	165			15.8
	Dimethenamid	71.9	77.3	83.9			8.24
	Dimethomorph	174	167	198			17.0
	Disulfoton	114	130	124			4.46
	Dithiopyr	95.6	98.6	101			2.37
	EPTC	61.7	39.5	65.6			49.7
	Ethion	47.8	68.3	56.0			19.8
	Ethoprop	71.8	144	160			11.1
	Etridiazole	85.7	66.1	95.3			36.1
	Fenamiphos	76.6	98.5	103			4.52
	Fenbuconazole	117	112	128			13.3
	Fipronil	91.6	91.4	99.7			8.70
	Fipronil Desulfinyl	102	97.3	103			5.40
	Fipronil Sulfide	95.9	86.3	85.7			0.641
	Fipronil Sulfone	98.5	74.9	81.2			8.12
	Fluazifop-P-butyl	100	91.1	95.6			4.79
	Fludioxonil	85.1	87.6	92.3			5.26
	Flumioxazin	158	201	244			19.0
	Flutolanil	93.0	111	115			3.86
	Fluxapyroxad	94.2	96.2	108			11.5

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8270E	Fonofos	65.0	136	139			2.41
	Hexazinone	112	105	111			5.27
	Imazalil	106	106	102			4.24
	Iprodione	85.0	97.2	105			7.87
	Loratadine	183	158	178			11.7
	Malathion	107	109	125			13.2
	Metalaxyl	94.9	87.6	95.9			9.11
	Metolachlor	105	104	111			6.56
	Metribuzin	117	117	129			9.88
	Mevinphos	105	94.7	122			25.6
	Molinate	77.4	67.5	86.2			24.4
	Myclobutanil	93.1	93.4	100			6.82
	Naled	109	82.8	106			24.9
	Napropamide	72.7	94.3	95.7			1.45
	Norflurazon	117	79.9	81.4			1.92
	Octinoxate	93.1	76.2	68.3			11.0
	Oxadiazon	103	99.6	104			4.56
	Oxybenzone	83.8	67.0	62.6			6.87
	Oxyfluorfen	82.4	80.9	78.2			3.44
	Parathion Ethyl	114	108	126			14.9
	Parathion Methyl	160	155	158			2.22
	PBDE-47	87.2	73.7	68.1			7.98
	PBDE-99	82.7	73.5	68.3			7.36
	Pendimethalin	72.3	93.0	93.6			0.664
	Phenytoin	17.5	37.1	42.1			12.8
	Phorate	107	111	121			9.05
	Prodiamine	72.6	42.8	45.1			5.26
	Prometon	74.3	87.3	77.6			11.8
	Prometryn	80.5	93.2	83.3			11.2
	Pronamide	88.7	109	116			6.26
	Propanil	103	112	121			7.71
	Propargite	66.6	87.5	93.0			6.15
	Propiconazole	60.4	96.1	131			30.6
	Pyraflufen Ethyl	82.3	90.1	113			22.1
	Pyridaben	120	129	140			8.60
	Pyriproxyfen	95.9	108	108			0.142
	Simazine	94.8	102	114			11.3
	Stirophos	59.7	83.7	93.8			11.4
	Sulfentrazone	58.6	84.7	97.1			13.6
	Tebuconazole	45.3	65.6	66.8			1.78
	Terbufos	81.0	172	176			2.14
	Terbuthylazine	90.5	91.7	97.9			6.53
	Thiobencarb	85.1	85.3	97.3			13.1
	Tri-o-cresyl Phosphate	90.0	78.8	70.1			11.7
	Triadimefon	84.5	96.1	99.9			3.83
SM 2320 B-2011	Total Alkalinity	98.2				2.71	
SM 2540 D-2015	TSS	102					
	TSS	94.4					
SM 4500-F- C-2011	Fluoride	98.2	98.2	98.8			0.464
SM 5310 B-2011	Organic Carbon	97.4	94.2	95.2			0.805
	Organic Carbon	98.0	88.6	88.5			0.130

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2375215, 2375216, 2375217, 2375218
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2375219, 2375220, 2375221, 2375222
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2375219, 2375220, 2375221, 2375222
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2375219, 2375220, 2375221, 2375222
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2375219, 2375220, 2375221, 2375222
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2375227, 2375228, 2375229, 2375230
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2375227, 2375228, 2375229, 2375230
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2375215, 2375216, 2375217, 2375218
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2375215, 2375216, 2375217, 2375218
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2375215, 2375216, 2375217, 2375218
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2375219, 2375220, 2375221, 2375222

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	12/14/2022			12/14/2022 14:03	Chandler E Cox	2375215
	12/14/2022			12/14/2022 14:10	Chandler E Cox	2375216
	12/14/2022			12/14/2022 14:11	Chandler E Cox	2375217, 2375218
EPA 350.1 Rev. 2.0	12/14/2022			01/03/2023 15:09	Ping Hua	2375219
	12/14/2022			01/03/2023 15:24	Ping Hua	2375220
	12/14/2022			01/03/2023 16:56	Ping Hua	2375221
	12/14/2022			01/03/2023 17:00	Ping Hua	2375222
EPA 351.2 Rev. 2.0	12/14/2022	12/16/2022 11:30	Judith K. Clark	12/19/2022 09:54	Samantha L Bates	2375219
	12/14/2022	12/16/2022 11:30	Judith K. Clark	12/19/2022 09:55	Samantha L Bates	2375220
	12/14/2022	12/16/2022 13:01	Judith K. Clark	12/19/2022 11:18	Samantha L Bates	2375221
	12/14/2022	12/16/2022 13:01	Judith K. Clark	12/19/2022 11:19	Samantha L Bates	2375222
EPA 353.2 Rev. 2.0	12/14/2022			12/19/2022 17:45	Touraj Touran	2375222
	12/14/2022			12/19/2022 17:46	Touraj Touran	2375220
	12/14/2022			12/19/2022 17:47	Touraj Touran	2375221
	12/14/2022			12/19/2022 18:01	Touraj Touran	2375219
EPA 365.1 Rev. 2.0	12/14/2022	12/15/2022 15:15	Simonne.V. Calhoun	12/16/2022 13:30	James L Waggerby	2375219
	12/14/2022	12/15/2022 15:15	Simonne.V. Calhoun	12/16/2022 13:31	James L Waggerby	2375220
	12/14/2022	12/15/2022 15:15	Simonne.V. Calhoun	12/16/2022 13:32	James L Waggerby	2375221
	12/14/2022	12/15/2022 15:15	Simonne.V. Calhoun	12/16/2022 13:33	James L Waggerby	2375222
EPA 8270E	12/14/2022	12/15/2022 10:00	Fe-Val Siddell	12/17/2022 23:10	Arthur Maknenko	2375227
	12/14/2022	12/15/2022 10:00	Fe-Val Siddell	12/17/2022 23:35	Arthur Maknenko	2375228
	12/14/2022	12/15/2022 10:00	Fe-Val Siddell	12/18/2022 00:00	Arthur Maknenko	2375229
	12/14/2022	12/15/2022 10:00	Fe-Val Siddell	12/18/2022 00:25	Arthur Maknenko	2375230
	12/14/2022	12/15/2022 10:00	Fe-Val Siddell	12/29/2022 19:55	Michael Poppell	2375227
	12/14/2022	12/15/2022 10:00	Fe-Val Siddell	12/29/2022 20:22	Michael Poppell	2375228
	12/14/2022	12/15/2022 10:00	Fe-Val Siddell	12/29/2022 20:49	Michael Poppell	2375229
	12/14/2022	12/15/2022 10:00	Fe-Val Siddell	12/29/2022 21:15	Michael Poppell	2375230
SM 2320 B-2011	12/14/2022			12/23/2022 19:16	Dale L. Simmons	2375215
	12/14/2022			12/23/2022 19:29	Dale L. Simmons	2375216
	12/14/2022			12/23/2022 19:43	Dale L. Simmons	2375217
	12/14/2022			12/23/2022 19:57	Dale L. Simmons	2375218
SM 2540 D-2015	12/14/2022			12/15/2022 16:01	Yijie Li	2375215, 2375216, 2375217, 2375218
SM 4500-F- C-2011	12/14/2022			01/05/2023 15:42	Dale L. Simmons	2375215
	12/14/2022			01/05/2023 15:47	Dale L. Simmons	2375216
	12/14/2022			01/05/2023 15:52	Dale L. Simmons	2375217
	12/14/2022			01/05/2023 15:58	Dale L. Simmons	2375218
SM 5310 B-2011	12/14/2022			01/04/2023 02:46	Khloe J Berg	2375222
	12/14/2022			12/20/2022 03:34	Elise M. Gillis	2375219
	12/14/2022			12/20/2022 03:47	Elise M. Gillis	2375220
	12/14/2022			12/20/2022 04:49	Elise M. Gillis	2375221