

Chemical Analysis Report

WQAP-2017-04-26-05

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

Event Description: **pesticide template kit: C**
Request ID: **RQ-2017-04-24-38**
Customer: **WQAP**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
2600 Blair Stone Rd
MS #3560
Tallahassee, FL 32399-2400
Attn: Mike Eckles

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Colin Wright, Program Administrator

Date Certified: 23-MAY-2017 09:56

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light-colored rectangular background.

Case Narrative

Unless otherwise noted, all samples included in this report were received in accordance with protocols referenced in Chapter 62-160, Florida Administrative Code (F.A.C.). Results published in this report pertain only to the samples as submitted to, and received by the laboratory. All times in this report are adjusted to the applicable Eastern Time Zone (EST or EDT).

Results for the following analytical groups are included in this report: Metals, Nutrients and Pesticides.

Scientific notation may be used in reporting very large or small values. Values reported using scientific notation will take the form of the following example: 1.3E+03, which is equivalent to 1.3×10^3 or 1300.

Unless otherwise noted, analytical values for soil and sediment samples are reported on a dry weight basis, and analytical values for waste and tissue samples are reported on a wet weight basis.

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited 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: Lake Seminole 200m from boat ramp @ River Rd. **Collection Date/Time: 04/26/2017 11:30**

Field ID: G2TLHR0002-2017-01

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1892976	EPA 180.1 Rev. 2.0	Turbidity	5.2		NTU	P324096	
	EPA 300.0 Rev. 2.1	Chloride	7.2		mg Cl/L	P324673	
		Sulfate	11		mg SO4/L	P324669	
	SM 2120 B	Color (true)	31		PCU	P324071	
	SM 2320 B-97	Total Alkalinity	36		mg CaCO3/L	P324823	
	SM 2540 C-97	TDS	71		mg/L	P324740	
	SM 2540 D-97	TSS	5	IA	mg/L	P324784	
	SM 4500 F-C-97	Fluoride	0.096	I	mg F/L	P325523	
1892977	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P324243	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.27		mg N/L	P324279	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.37		mg N/L	P324386	
	EPA 365.1 Rev. 2.0	Total-P	0.020		mg P/L	P324275	
	SM 5310 B-00	Organic Carbon	3.5		mg C/L	P324234	
1892978	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P324105	
1892984	EPA 200.7 Rev. 4.4	Calcium	12.5		mg/L	P325545	
		Iron	820		ug/L	P325545	
		Magnesium	2.54		mg/L	P325545	
		Potassium	2.2		mg/L	P325545	
		Sodium	9.5		mg/L	P325545	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P325545	
		Arsenic	0.42		ug/L	P325545	
		Cadmium	0.020	U	ug/L	P325545	
		Chromium	0.50	I	ug/L	P325545	
		Copper	0.79	I	ug/L	P325545	
		Lead	0.20		ug/L	P325545	
		Nickel	0.46	I	ug/L	P325545	
		Silver	0.010	U	ug/L	P325545	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Lake Seminole 200m from boat ramp @ River Rd. **Collection Date/Time: 04/26/2017 11:30**

Field ID: G2TLHR0002-2017-01

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1892980	EPA 8321B	Glyphosate**	10	U	ug/L	P324039	
		Sucralose**	1.5		ug/L	P324034	
	USGS O-2060-01	2,4-D	0.017		ug/L	P324040	
		Diuron	0.0043		ug/L	P324040	
		Fenuron	0.0040	U	ug/L	P324040	
		Imidacloprid	0.0037		ug/L	P324040	MS
		Bentazon	8.0E-04	U	ug/L	P324040	
		Linuron	0.0040	U	ug/L	P324040	
		Acetaminophen**	0.0080	U	ug/L	P324040	

Field ID: G2TLHR0002-2017-01

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1892980	USGS O-2060-01	MCP	0.0026	I	ug/L	P324040	
		Carbamazepine**	0.0038		ug/L	P324040	
		Triclopyr**	0.0040	U	ug/L	P324040	
		Primidone**	0.0041	I	ug/L	P324040	
		Fluridone**	0.012		ug/L	P324040	
1892981	EPA 8321B	Pyraclostrobin**	0.0020	U	ug/L	P324033	
1892982	EPA 8270D	Aldrin	4.4	UJ	ng/L	P324073	SUR
		Alpha-BHC	2.2	UJ	ng/L	P324073	SUR
		Beta-BHC	4.4	UJ	ng/L	P324073	SUR
		Delta-BHC	4.4	UJ	ng/L	P324073	SUR
		Gamma-BHC	4.4	UJ	ng/L	P324073	SUR
		Carbophenothion	4.4	UJ	ng/L	P324073	SUR
		Chlorothalonil	2.2	UJ	ng/L	P324073	LCS, RPD, SUR
		Cypermethrin	22	UJ	ng/L	P324073	SUR
		DDD-p,p'	2.2	UJ	ng/L	P324073	SUR
		DDE-p,p'	3.3	UJ	ng/L	P324073	SUR
		DDT-p,p'	3.3	UJ	ng/L	P324073	SUR
		Dieldrin	4.4	UJ	ng/L	P324073	SUR
		Endosulfan I	4.4	UJ	ng/L	P324073	SUR
		Endosulfan II	4.4	UJ	ng/L	P324073	SUR
		Endosulfan Sulfate	2.2	UJ	ng/L	P324073	SUR
		Endrin	2.2	UJ	ng/L	P324073	SUR
		Endrin Aldehyde	2.2	U	ng/L	P324073	SUR
		Heptachlor	1.7	UJ	ng/L	P324073	SUR
		Heptachlor Epoxide	2.2	UJ	ng/L	P324073	SUR
		Methoxychlor	4.4	UJ	ng/L	P324073	SUR
		Mirex	2.2	UJ	ng/L	P324073	SUR
		Permethrin	11	UJ	ng/L	P324073	SUR
		Trifluralin	1.1	UJ	ng/L	P324073	MS, SUR
		Alpha-Chlordane	1.1	UJ	ng/L	P324073	SUR
		Gamma-Chlordane	1.1	UJ	ng/L	P324073	SUR
		Endrin Ketone	2.2	UJ	ng/L	P324073	SUR
		Dicofol	33	UJ	ng/L	P324073	MS, RPD, SUR
	EPA 8276	Chlordane**	2.8	U	ng/L	P324073	
		Toxaphene**	14	U	ng/L	P324073	
1892983	EPA 8270D	Ametryn	0.31	U	ng/L	P324314	
		Atrazine	8.0		ng/L	P324314	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P324314	
		Chlorpyrifos Methyl	0.094	U	ng/L	P324314	
		Disulfoton	0.31	U	ng/L	P324314	
		Ethion	0.14	U	ng/L	P324314	
		Ethoprop	0.094	U	ng/L	P324314	
		Hexazinone	2.2		ng/L	P324314	
		Malathion	0.33	U	ng/L	P324314	

Field ID: G2TLHR0002-2017-01

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1892983	EPA 8270D	Metribuzin	0.19	U	ng/L	P324314	
		Mevinphos	0.47	U	ng/L	P324314	
		Norflurazon	0.47	U	ng/L	P324314	
		Phorate	0.24	U	ng/L	P324314	
		Prometryn	0.19	U	ng/L	P324314	
		Simazine	38		ng/L	P324314	
		Atrazine Desethyl	1.4	U	ng/L	P324314	
		Prometon	0.85	U	ng/L	P324314	
		Fipronil	0.24	U	ng/L	P324314	
		Molinate	0.28	U	ng/L	P324314	
		Pendimethalin	1.4	U	ng/L	P324314	
		Terbufos	0.094	U	ng/L	P324314	
		EPTC	1.2	U	ng/L	P324314	
		Terbutylazine	0.40	U	ng/L	P324314	
		Bromacil	1.8	I	ng/L	P324314	
		Fipronil Sulfide	0.14	U	ng/L	P324314	
		Fipronil Sulfone	0.30	I	ng/L	P324314	
		Alachlor	0.24	U	ng/L	P324314	
		Azinphos Methyl	2.1	U	ng/L	P324314	
		Butylate	0.38	U	ng/L	P324314	
		Demeton	1.9	U	ng/L	P324314	
		Diazinon	0.12	U	ng/L	P324314	
		Fenamiphos	0.24	UJ	ng/L	P324314	LCS, MS
		Fonofos	0.19	U	ng/L	P324314	
		Metalaxyl	0.38	I	ng/L	P324314	
		Metolachlor	1.5		ng/L	P324314	
		Acetochlor	0.28	I	ng/L	P324314	
		Cyanazine	0.47	U	ng/L	P324314	
		Parathion Ethyl	0.24	U	ng/L	P324314	
		Parathion Methyl	0.24	U	ng/L	P324314	

Ref. Method and Comment:

USGS O-2060-01: Indaziflam = 9.6E-04 I ug/L.

EPA 8270D: Refer to the narrative for an explanation of QC Codes. Reported results qualified with "J" due to surrogate below control limits; the sample was subsequently re-analyzed (after expiration) with acceptable surrogate recovery and the same analytical results were obtained.

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P324096

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P325545

Component	Result	Code	Units
Calcium	0.075	U	mg/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P325545

Component	Result	Code	Units
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P325545

Component	Result	Code	Units
Arsenic	0.050	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.20	U	ug/L
Lead	0.050	U	ug/L
Nickel	0.20	U	ug/L
Silver	0.010	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324669

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324673

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P324243

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P324279

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P324386

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P324275

Component	Result	Code	Units
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Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P324275

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P324105

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

Reference Method: EPA 8270D
Batch ID: P324073

Component	Result	Code	Units
Aldrin	4.0	U	ng/L
Alpha-BHC	2.0	U	ng/L
Alpha-Chlordane	1.0	U	ng/L
Beta-BHC	4.0	U	ng/L
Carbophenothion	4.0	U	ng/L
Chlorothalonil	2.0	U	ng/L
Cypermethrin	20	U	ng/L
DDD-p,p'	2.0	U	ng/L
DDE-p,p'	3.0	U	ng/L
DDT-p,p'	3.0	U	ng/L
Delta-BHC	4.0	U	ng/L
Dicofol	30	U	ng/L
Dieldrin	4.0	U	ng/L
Endosulfan I	4.0	U	ng/L
Endosulfan II	4.0	U	ng/L
Endosulfan Sulfate	2.0	U	ng/L
Endrin	2.0	U	ng/L
Endrin Aldehyde	2.0	U	ng/L
Endrin Ketone	2.0	U	ng/L
Gamma-BHC	4.0	U	ng/L
Gamma-Chlordane	1.0	U	ng/L
Heptachlor	1.5	U	ng/L
Heptachlor Epoxide	2.0	U	ng/L
Methoxychlor	4.0	U	ng/L
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L
Trifluralin	1.0	U	ng/L

Reference Method: EPA 8270D
Batch ID: P324314

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.32	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	2.2	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270D

Batch ID: P324314

Component	Result	Code	Units
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
Cyanazine	0.50	U	ng/L
Demeton	2.0	U	ng/L
Diazinon	0.12	U	ng/L
Disulfoton	0.32	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.25	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.20	U	ng/L
Metolachlor	0.25	U	ng/L
Metribuzin	0.20	U	ng/L
Mevinphos	0.50	U	ng/L
Molinate	0.30	U	ng/L
Norflurazon	0.50	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.25	U	ng/L
Pendimethalin	1.5	U	ng/L
Phorate	0.25	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Simazine	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L

Reference Method: EPA 8276

Batch ID: P324073

Component	Result	Code	Units
Chlordane	2.5	U	ng/L
Toxaphene	12	U	ng/L

Reference Method: EPA 8321B

Batch ID: P324033

Component	Result	Code	Units
Pyraclostrobin	0.0020	U	ug/L

Reference Method: EPA 8321B

Batch ID: P324034

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P324039

Component	Result	Code	Units
Glyphosate	10	U	ug/L

Reference Method: SM 2120 B
Batch ID: P324071

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P324823

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

Reference Method: SM 2540 C-97
Batch ID: P324740

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P324784

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P325523

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P324234

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

Reference Method: USGS O-2060-01
Batch ID: P324040

Component	Result	Code	Units
2,4-D	8.0E-04	U	ug/L
Acetaminophen	0.0080	U	ug/L
Bentazon	8.0E-04	U	ug/L
Carbamazepine	4.0E-04	U	ug/L
Diuron	8.0E-04	U	ug/L
Fenuron	0.0040	U	ug/L
Fluridone	4.0E-04	U	ug/L
Imidacloprid	8.0E-04	U	ug/L
Linuron	0.0040	U	ug/L
MCPP	8.0E-04	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: USGS O-2060-01
Batch ID: P324040

Component	Result	Code	Units
Primidone	0.0040	U	ug/L
Triclopyr	0.0040	U	ug/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P325545

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	106		P	85 - 115
Iron	102		P	85 - 115
Magnesium	107		P	85 - 115
Potassium	97.7		P	85 - 115
Sodium	102		P	85 - 115
Zinc	97.7		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P325545

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	99.9		P	85 - 115
Cadmium	96.6		P	85 - 115
Chromium	96.0		P	85 - 115
Copper	98.6		P	85 - 115
Lead	97.4		P	85 - 115
Nickel	101		P	85 - 115
Silver	94.9		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324669

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324673

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P324243

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P324279

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

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P324279

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	95.1		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P324386

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	103		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P324275

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P324105

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	97.2		P	90 - 110

Reference Method: EPA 8270D
 Batch ID: P324073

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	49.7	46.3	P/P	30 - 83.0
Alpha-BHC	93.1	92.6	P/P	62 - 119
Alpha-Chlordane	94.0	86.3	P/P	56 - 119
Beta-BHC	107	107	P/P	54 - 141
Carbophenothion	109	110	P/P	33 - 147
Chlorothalonil	23.8	61.7	F/P	25 - 175
Cypermethrin	101	83.2	P/P	50 - 155
DDD-p,p'	100	91.7	P/P	56 - 135
DDE-p,p'	92.0	89.0	P/P	48 - 120
DDT-p,p'	98.8	95.4	P/P	51 - 121
Delta-BHC	124	127	P/P	65 - 163
Dicofol	44.1	33.8	P/P	15 - 112
Dieldrin	92.6	85.6	P/P	59 - 134
Endosulfan I	100	95.3	P/P	65 - 142
Endosulfan II	102	98.3	P/P	65 - 154
Endosulfan Sulfate	95.2	93.0	P/P	65 - 136
Endrin	102	91.2	P/P	53 - 156
Endrin Aldehyde	89.3	82.8	P/P	47 - 156
Endrin Ketone	93.6	91.1	P/P	70 - 124
Gamma-BHC	103	102	P/P	64 - 142
Gamma-Chlordane	91.1	82.9	P/P	55 - 114
Heptachlor	76.6	73.7	P/P	42 - 105
Heptachlor Epoxide	94.2	87.8	P/P	67 - 120
Methoxychlor	108	100	P/P	63 - 134
Mirex	77.1	72.4	P/P	40 - 90.0
Permethrin	99.6	83.3	P/P	36 - 144
Trifluralin	147	126	P/P	40 - 170

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P324314

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	105	89.2	P/P	78 - 118
Alachlor	102	84.5	P/P	77 - 119
Ametryn	126	109	P/P	61 - 136
Atrazine	108	92.0	P/P	73 - 120
Atrazine Desethyl	76.0	67.8	P/P	16 - 122
Azinphos Methyl	144	131	P/P	69 - 186
Bromacil	88.1	77.3	P/P	40 - 125
Butylate	52.5	48.4	P/P	32 - 87.0
Chlorpyrifos Ethyl	99.8	87.2	P/P	53 - 110
Chlorpyrifos Methyl	97.7	86.1	P/P	31 - 119
Cyanazine	122	105	P/P	36 - 224
Demeton	102	94.6	P/P	39 - 122
Diazinon	101	84.5	P/P	75 - 119
Disulfoton	99.3	92.0	P/P	42 - 139
EPTC	51.4	47.9	P/P	33 - 96.0
Ethion	126	112	P/P	63 - 127
Ethoprop	103	85.1	P/P	65 - 107
Fenamiphos	150	131	F/P	64 - 137
Fipronil	113	99.2	P/P	60 - 126
Fipronil Sulfide	106	88.1	P/P	58 - 124
Fipronil Sulfone	102	91.1	P/P	57 - 126
Fonofos	97.9	82.9	P/P	65 - 111
Hexazinone	93.3	95.5	P/P	46 - 151
Malathion	102	98.5	P/P	68 - 132
Metaxyl	98.8	85.1	P/P	51 - 132
Metolachlor	110	91.1	P/P	78 - 119
Metribuzin	111	94.2	P/P	64 - 138
Mevinphos	95.4	81.9	P/P	34 - 128
Molinate	63.3	55.7	P/P	44 - 101
Norflurazon	112	97.5	P/P	63 - 129
Parathion Ethyl	98.7	87.9	P/P	80 - 109
Parathion Methyl	91.9	85.8	P/P	74 - 125
Pendimethalin	97.4	86.1	P/P	48 - 134
Phorate	109	87.1	P/P	52 - 119
Prometon	115	94.8	P/P	69 - 124
Prometryn	118	102	P/P	66 - 124
Simazine	105	88.9	P/P	61 - 134
Terbufos	100	85.9	P/P	58 - 115
Terbutylazine	99.0	86.0	P/P	77 - 113

Reference Method: EPA 8276
Batch ID: P324073

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	77.2	84.6	P/P	44 - 118
Toxaphene	92.7	90.9	P/P	36 - 136

Reference Method: EPA 8321B
Batch ID: P324033

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Pyraclostrobin	94.4		P	40 - 140

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P324034

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	113		P	40 - 140

Reference Method: EPA 8321B
Batch ID: P324039

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Glyphosate	129		P	40 - 140

Reference Method: SM 2320 B-97
Batch ID: P324823

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P325523

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	102		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P324234

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	104		P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P324040

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	73.9		P	40 - 140
Acetaminophen	83.4		P	40 - 140
Bentazon	48.0		P	40 - 140
Carbamazepine	109		P	40 - 140
Diuron	106		P	40 - 140
Fenuron	105		P	40 - 140
Fluridone	102		P	40 - 140
Imidacloprid	106		P	40 - 160
Linuron	98.6		P	40 - 140
MCP	79.2		P	40 - 140
Primidone	105		P	40 - 140
Triclopyr	77.4		P	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P325545

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892815	Calcium	110		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P325545

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892815	Iron	104		P	80 - 120
1892815	Magnesium	111		P	80 - 120
1892815	Potassium	102		P	80 - 120
1892815	Sodium	98.4		P	80 - 120
1892815	Zinc	99.3		P	80 - 120
1892909	Calcium	107	110	P/P	80 - 120
1892909	Iron	104	106	P/P	80 - 120
1892909	Magnesium	109	111	P/P	80 - 120
1892909	Potassium	99.8	100	P/P	80 - 120
1892909	Sodium	105		P	80 - 120
1892909	Zinc	100	101	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P325545

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892815	Arsenic	98.2		P	80 - 120
1892815	Cadmium	98.2		P	80 - 120
1892815	Chromium	94.9		P	80 - 120
1892815	Copper	99.0		P	80 - 120
1892815	Lead	97.2		P	80 - 120
1892815	Nickel	99.8		P	80 - 120
1892815	Silver	95.4		P	80 - 120
1892909	Arsenic	99.7	98.4	P/P	80 - 120
1892909	Cadmium	98.4	95.6	P/P	80 - 120
1892909	Chromium	96.6	94.9	P/P	80 - 120
1892909	Copper	98.5	97.8	P/P	80 - 120
1892909	Lead	98.5	96.8	P/P	80 - 120
1892909	Nickel	100	99.4	P/P	80 - 120
1892909	Silver	94.6	93.7	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324669

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892987	Sulfate	98.8		P	90 - 110
1892988	Sulfate	98.4		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324673

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892987	Chloride	97.3		P	90 - 110
1892988	Chloride	95.5		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P324243

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892924	Ammonia-N	102	98.2	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P324279

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1893812	Kjeldahl Nitrogen	88.6	89.9	F/F	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P324386

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892890	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P324275

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892995	Total-P	102	97.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P324105

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892764	O-Phosphate-P	93.5	95.2	P/P	90 - 110

Reference Method: EPA 8270D
Batch ID: P324073

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892624	Aldrin	59.2	70.7	P/P	30 - 83.0
1892624	Alpha-BHC	86.6	110	P/P	62 - 119
1892624	Alpha-Chlordane	75.0	88.4	P/P	56 - 119
1892624	Beta-BHC	89.2	109	P/P	54 - 141
1892624	Carbophenothion	125	147	P/P	33 - 147
1892624	Chlorothalonil	148	153	P/P	25 - 175
1892624	Cypermethrin	109	140	P/P	50 - 155
1892624	DDD-p,p'	78.7	95.2	P/P	56 - 135
1892624	DDE-p,p'	68.5	85.6	P/P	48 - 120
1892624	DDT-p,p'	68.7	79.0	P/P	51 - 121
1892624	Delta-BHC	116	135	P/P	65 - 163
1892624	Dicofol	11.8	20.1	F/P	15 - 112
1892624	Dieldrin	72.3	85.5	P/P	59 - 134
1892624	Endosulfan I	84.3	96.8	P/P	65 - 142
1892624	Endosulfan II	88.6	105	P/P	65 - 154
1892624	Endosulfan Sulfate	86.4	96.2	P/P	65 - 136
1892624	Endrin	84.6	87.7	P/P	53 - 156
1892624	Endrin Aldehyde	81.3	96.8	P/P	47 - 156
1892624	Endrin Ketone	90.6	110	P/P	70 - 124
1892624	Gamma-BHC	84.0	103	P/P	64 - 142
1892624	Gamma-Chlordane	74.9	87.6	P/P	55 - 114
1892624	Heptachlor	66.6	73.5	P/P	42 - 105
1892624	Heptachlor Epoxide	75.6	88.9	P/P	67 - 120
1892624	Methoxychlor	80.3	93.5	P/P	63 - 134
1892624	Mirex	64.5	78.7	P/P	40 - 90.0
1892624	Permethrin	98.9	124	P/P	36 - 144
1892624	Trifluralin	139	176	P/F	40 - 170

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
 Batch ID: P324314

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1893765	Acetochlor	99.0	98.8	P/P	74 - 123
1893765	Alachlor	92.5	92.4	P/P	73 - 124
1893765	Ametryn	122	125	P/P	56 - 149
1893765	Atrazine	99.3	97.3	P/P	73 - 124
1893765	Atrazine Desethyl	65.9	61.9	P/P	12 - 103
1893765	Azinphos Methyl	147	127	P/P	60 - 202
1893765	Bromacil	92.7	92.1	P/P	42 - 133
1893765	Butylate	41.4	39.2	P/P	10 - 85.0
1893765	Chlorpyrifos Ethyl	93.3	93.3	P/P	53 - 113
1893765	Chlorpyrifos Methyl	89.3	85.7	P/P	40 - 115
1893765	Cyanazine	115	109	P/P	22 - 210
1893765	Demeton	96.9	94.3	P/P	17 - 149
1893765	Diazinon	97.6	97.4	P/P	72 - 124
1893765	Disulfoton	98.6	89.5	P/P	43 - 139
1893765	EPTC	39.7	37.3	P/P	10 - 86.0
1893765	Ethion	120	117	P/P	65 - 131
1893765	Ethoprop	96.8	93.6	P/P	59 - 110
1893765	Fenamiphos	143	141	F/F	57 - 138
1893765	Fipronil	113	108	P/P	40 - 130
1893765	Fipronil Sulfide	99.5	91.9	P/P	36 - 128
1893765	Fipronil Sulfone	100	90.2	P/P	16 - 145
1893765	Fonofos	95.5	89.3	P/P	60 - 112
1893765	Hexazinone	94.1	87.9	P/P	69 - 142
1893765	Malathion	103	92.9	P/P	68 - 132
1893765	Metaxyl	96.7	95.4	P/P	66 - 118
1893765	Metolachlor	97.9	101	P/P	71 - 124
1893765	Metribuzin	104	98.0	P/P	61 - 140
1893765	Mevinphos	95.6	84.4	P/P	38 - 130
1893765	Molinate	54.5	52.2	P/P	23 - 99.0
1893765	Norflurazon	114	105	P/P	39 - 139
1893765	Parathion Ethyl	98.1	90.6	P/P	75 - 111
1893765	Parathion Methyl	91.6	85.6	P/P	64 - 130
1893765	Pendimethalin	99.3	93.9	P/P	26 - 173
1893765	Phorate	97.3	95.5	P/P	43 - 127
1893765	Prometon	115	112	P/P	50 - 144
1893765	Prometryn	116	115	P/P	69 - 126
1893765	Simazine	94.0	89.3	P/P	51 - 152
1893765	Terbufos	96.1	93.2	P/P	54 - 125
1893765	Terbuthylazine	92.3	90.5	P/P	76 - 113

Reference Method: EPA 8276
 Batch ID: P324073

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1893803	Chlordane	83.4	76.9	P/P	44 - 118
1893803	Toxaphene	115	112	P/P	36 - 136

Reference Method: EPA 8321B
 Batch ID: P324033

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892645	Pyraclostrobin	94.2	86.2	P/P	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
 Batch ID: P324034

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892902	Sucralose	110	110	P/P	40 - 140

Reference Method: EPA 8321B
 Batch ID: P324039

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892980	Glyphosate	124	128	P/P	40 - 140

Reference Method: SM 4500 F-C-97
 Batch ID: P325523

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892759	Fluoride	101	102	P/P	91 - 105

Reference Method: SM 5310 B-00
 Batch ID: P324234

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892924	Organic Carbon	103	103	P/P	85 - 115

Reference Method: USGS O-2060-01
 Batch ID: P324040

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892542	2,4-D	62.4	66.3	P/P	40 - 140
1892542	Acetaminophen	81.8	101	P/P	40 - 140
1892542	Bentazon	47.2	49.4	P/P	40 - 140
1892542	Carbamazepine	89.2	90.7	P/P	40 - 140
1892542	Diuron	76.3	80.6	P/P	40 - 140
1892542	Fenuron	49.5	49.3	P/P	40 - 140
1892542	Fluridone	71.1	74.9	P/P	40 - 140
1892542	Imidacloprid	154	163	P/F	40 - 160
1892542	Linuron	91.2	94.6	P/P	40 - 140
1892542	MCP	56.8	61.2	P/P	40 - 140
1892542	Primidone	81.5	84.5	P/P	40 - 140
1892542	Triclopyr	60.1	63.0	P/P	40 - 140

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P324096

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892922	Turbidity	0.897	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P325545

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892909	Calcium	1.21	Spike	P	0 - 20
1892909	Iron	1.54	Spike	P	0 - 20
1892909	Magnesium	1.50	Spike	P	0 - 20
1892909	Potassium	0.402	Spike	P	0 - 20
1892909	Sodium	1.57	Spike	P	0 - 20
1892909	Zinc	0.568	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P325545

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892909	Arsenic	1.26	Spike	P	0 - 20
1892909	Cadmium	2.90	Spike	P	0 - 20
1892909	Chromium	1.83	Spike	P	0 - 20
1892909	Copper	0.677	Spike	P	0 - 20
1892909	Lead	1.67	Spike	P	0 - 20
1892909	Nickel	0.591	Spike	P	0 - 20
1892909	Silver	0.953	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324669

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892987	Sulfate	0.593	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324673

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892987	Chloride	0.0770	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P324243

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892924	Ammonia-N	4.10	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P324279

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1893812	Kjeldahl Nitrogen	1.29	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P324386

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892890	NO2NO3-N	0.489	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P324275

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892995	Total-P	4.29	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P324105

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892764	O-Phosphate-P	1.53	Spike	P	0 - 20

Reference Method: EPA 8270D

Batch ID: P324073

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892624	Aldrin	17.6	Spike	P	0 - 30
1892624	Alpha-BHC	24.0	Spike	P	0 - 30
1892624	Alpha-Chlordane	16.5	Spike	P	0 - 30
1892624	Beta-BHC	20.0	Spike	P	0 - 30
1892624	Carbophenothion	16.1	Spike	P	0 - 30
1892624	Chlorothalonil	3.21	Spike	P	0 - 30
1892624	Cypermethrin	24.6	Spike	P	0 - 30
1892624	DDD-p,p'	19.0	Spike	P	0 - 30
1892624	DDE-p,p'	22.2	Spike	P	0 - 30
1892624	DDT-p,p'	13.9	Spike	P	0 - 30
1892624	Delta-BHC	14.4	Spike	P	0 - 30
1892624	Dicofol	51.9	Spike	F	0 - 30
1892624	Dieldrin	16.7	Spike	P	0 - 30
1892624	Endosulfan I	13.8	Spike	P	0 - 30
1892624	Endosulfan II	17.2	Spike	P	0 - 30
1892624	Endosulfan Sulfate	10.7	Spike	P	0 - 30
1892624	Endrin	3.50	Spike	P	0 - 30
1892624	Endrin Aldehyde	17.4	Spike	P	0 - 30
1892624	Endrin Ketone	19.3	Spike	P	0 - 30
1892624	Gamma-BHC	20.4	Spike	P	0 - 30
1892624	Gamma-Chlordane	15.6	Spike	P	0 - 30
1892624	Heptachlor	9.76	Spike	P	0 - 30
1892624	Heptachlor Epoxide	16.2	Spike	P	0 - 30
1892624	Methoxychlor	15.1	Spike	P	0 - 30
1892624	Mirex	19.8	Spike	P	0 - 30
1892624	Permethrin	22.2	Spike	P	0 - 30
1892624	Trifluralin	23.7	Spike	P	0 - 30
LFB	Aldrin	7.13	LCS	P	0 - 30
LFB	Alpha-BHC	0.503	LCS	P	0 - 30
LFB	Alpha-Chlordane	8.54	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P324073

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Beta-BHC	0.0541	LCS	P	0 - 30
LFB	Carbophenothion	1.12	LCS	P	0 - 30
LFB	Chlorothalonil	88.5	LCS	F	0 - 30
LFB	Cypermethrin	18.9	LCS	P	0 - 30
LFB	DDD-p,p'	9.11	LCS	P	0 - 30
LFB	DDE-p,p'	3.27	LCS	P	0 - 30
LFB	DDT-p,p'	3.56	LCS	P	0 - 30
LFB	Delta-BHC	2.40	LCS	P	0 - 30
LFB	Dicofol	26.5	LCS	P	0 - 30
LFB	Dieldrin	7.84	LCS	P	0 - 30
LFB	Endosulfan I	5.08	LCS	P	0 - 30
LFB	Endosulfan II	3.73	LCS	P	0 - 30
LFB	Endosulfan Sulfate	2.32	LCS	P	0 - 30
LFB	Endrin	11.7	LCS	P	0 - 30
LFB	Endrin Aldehyde	7.60	LCS	P	0 - 30
LFB	Endrin Ketone	2.71	LCS	P	0 - 30
LFB	Gamma-BHC	0.727	LCS	P	0 - 30
LFB	Gamma-Chlordane	9.39	LCS	P	0 - 30
LFB	Heptachlor	3.87	LCS	P	0 - 30
LFB	Heptachlor Epoxide	7.04	LCS	P	0 - 30
LFB	Methoxychlor	7.65	LCS	P	0 - 30
LFB	Mirex	6.35	LCS	P	0 - 30
LFB	Permethrin	17.8	LCS	P	0 - 30
LFB	Trifluralin	15.4	LCS	P	0 - 30

Reference Method: EPA 8270D
Batch ID: P324314

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1893765	Acetochlor	0.220	Spike	P	0 - 30
1893765	Alachlor	0.128	Spike	P	0 - 30
1893765	Ametryn	2.89	Spike	P	0 - 30
1893765	Atrazine	1.67	Spike	P	0 - 30
1893765	Atrazine Desethyl	6.24	Spike	P	0 - 30
1893765	Azinphos Methyl	14.3	Spike	P	0 - 30
1893765	Bromacil	0.607	Spike	P	0 - 30
1893765	Butylate	5.36	Spike	P	0 - 30
1893765	Chlorpyrifos Ethyl	0.0469	Spike	P	0 - 30
1893765	Chlorpyrifos Methyl	4.12	Spike	P	0 - 30
1893765	Cyanazine	5.56	Spike	P	0 - 30
1893765	Demeton	2.64	Spike	P	0 - 30
1893765	Diazinon	0.233	Spike	P	0 - 30
1893765	Disulfoton	9.59	Spike	P	0 - 30
1893765	EPTC	6.18	Spike	P	0 - 30
1893765	Ethion	2.84	Spike	P	0 - 30
1893765	Ethoprop	3.40	Spike	P	0 - 30
1893765	Fenamiphos	1.13	Spike	P	0 - 30
1893765	Fipronil	3.59	Spike	P	0 - 30
1893765	Fipronil Sulfide	8.01	Spike	P	0 - 30
1893765	Fipronil Sulfone	9.15	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P324314

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1893765	Fonofos	6.72	Spike	P	0 - 30
1893765	Hexazinone	6.02	Spike	P	0 - 30
1893765	Malathion	10.8	Spike	P	0 - 30
1893765	Metalaxyl	1.37	Spike	P	0 - 30
1893765	Metolachlor	2.56	Spike	P	0 - 30
1893765	Metribuzin	5.54	Spike	P	0 - 30
1893765	Mevinphos	12.4	Spike	P	0 - 30
1893765	Molinate	4.39	Spike	P	0 - 30
1893765	Norflurazon	7.92	Spike	P	0 - 30
1893765	Parathion Ethyl	7.92	Spike	P	0 - 30
1893765	Parathion Methyl	6.78	Spike	P	0 - 30
1893765	Pendimethalin	5.61	Spike	P	0 - 30
1893765	Phorate	1.87	Spike	P	0 - 30
1893765	Prometon	2.69	Spike	P	0 - 30
1893765	Prometryn	0.528	Spike	P	0 - 30
1893765	Simazine	5.17	Spike	P	0 - 30
1893765	Terbufos	3.08	Spike	P	0 - 30
1893765	Terbutylazine	1.94	Spike	P	0 - 30
LFB	Acetochlor	15.9	LCS	P	0 - 30
LFB	Alachlor	18.5	LCS	P	0 - 30
LFB	Ametryn	14.4	LCS	P	0 - 30
LFB	Atrazine	15.9	LCS	P	0 - 30
LFB	Atrazine Desethyl	11.5	LCS	P	0 - 30
LFB	Azinphos Methyl	9.43	LCS	P	0 - 30
LFB	Bromacil	13.0	LCS	P	0 - 30
LFB	Butylate	8.11	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	13.4	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	12.6	LCS	P	0 - 30
LFB	Cyanazine	14.9	LCS	P	0 - 30
LFB	Demeton	7.25	LCS	P	0 - 30
LFB	Diazinon	17.3	LCS	P	0 - 30
LFB	Disulfoton	7.71	LCS	P	0 - 30
LFB	EPTC	7.10	LCS	P	0 - 30
LFB	Ethion	12.3	LCS	P	0 - 30
LFB	Ethoprop	18.6	LCS	P	0 - 30
LFB	Fenamiphos	13.2	LCS	P	0 - 30
LFB	Fipronil	13.2	LCS	P	0 - 30
LFB	Fipronil Sulfide	18.0	LCS	P	0 - 30
LFB	Fipronil Sulfone	10.9	LCS	P	0 - 30
LFB	Fonofos	16.5	LCS	P	0 - 30
LFB	Hexazinone	2.31	LCS	P	0 - 30
LFB	Malathion	3.75	LCS	P	0 - 30
LFB	Metalaxyl	14.9	LCS	P	0 - 30
LFB	Metolachlor	18.8	LCS	P	0 - 30
LFB	Metribuzin	15.9	LCS	P	0 - 30
LFB	Mevinphos	15.3	LCS	P	0 - 30
LFB	Molinate	12.9	LCS	P	0 - 30
LFB	Norflurazon	14.2	LCS	P	0 - 30
LFB	Parathion Ethyl	11.6	LCS	P	0 - 30
LFB	Parathion Methyl	6.81	LCS	P	0 - 30
LFB	Pendimethalin	12.3	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P324314

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Phorate	22.8	LCS	P	0 - 30
LFB	Prometon	19.5	LCS	P	0 - 30
LFB	Prometryn	13.8	LCS	P	0 - 30
LFB	Simazine	16.8	LCS	P	0 - 30
LFB	Terbufos	15.4	LCS	P	0 - 30
LFB	Terbutylazine	14.1	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P324073

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1893803	Chlordane	8.10	Spike	P	0 - 30
1893803	Toxaphene	3.05	Spike	P	0 - 30
LFB	Chlordane	9.10	LCS	P	0 - 30
LFB	Toxaphene	1.96	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P324033

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892645	Pyraclostrobin	8.87	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P324034

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892902	Sucralose	0.0	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P324039

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892980	Glyphosate	2.86	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P324071

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892922	Color (true)	2.06	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P324823

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1893287	Total Alkalinity	0.653	Sample	P	0 - 4.8

Quality Assurance Report Precision

Reference Method: SM 2540 C-97
 Batch ID: P324740

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892758	TDS	3.97	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
 Batch ID: P325523

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892759	Fluoride	0.947	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
 Batch ID: P324234

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892924	Organic Carbon	0.150	Spike	P	0 - 20

Reference Method: USGS O-2060-01
 Batch ID: P324040

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892542	2,4-D	5.43	Spike	P	0 - 30
1892542	Acetaminophen	20.6	Spike	P	0 - 30
1892542	Bentazon	4.29	Spike	P	0 - 30
1892542	Carbamazepine	1.73	Spike	P	0 - 30
1892542	Diuron	4.34	Spike	P	0 - 30
1892542	Fenuron	0.324	Spike	P	0 - 30
1892542	Fluridone	4.39	Spike	P	0 - 30
1892542	Imidacloprid	5.87	Spike	P	0 - 30
1892542	Linuron	3.66	Spike	P	0 - 30
1892542	MCP	7.46	Spike	P	0 - 30
1892542	Primidone	3.61	Spike	P	0 - 30
1892542	Triclopyr	4.68	Spike	P	0 - 30

* Sample, spike and/or laboratory control sample precision (LCS) is reported.
 Replicate spike precision may be reported when sample results are below quantifiable levels.

Quality Assurance Report Surrogates

Lab Sample ID: 1892980
 Field Sample ID: G2TLHR0002-2017-01

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Glyphosate 13C 15N	114	P	40 - 150
EPA 8321B	Sucralose-d6	104	P	40 - 150
USGS O-2060-01	2,4-D-d3	73.3	P	30 - 150
USGS O-2060-01	Acetaminophen-d4	98.2	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	113	P	30 - 160
USGS O-2060-01	Diuron-d6	112	P	30 - 150

Quality Assurance Report Surrogates

Lab Sample ID: 1892980

Field Sample ID: G2TLHR0002-2017-01

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
USGS O-2060-01	Primidone-d5	124	P	30 - 150

Lab Sample ID: 1892981

Field Sample ID: G2TLHR0002-2017-01

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Diuron-d6	109	P	30 - 150

Lab Sample ID: 1892982

Field Sample ID: G2TLHR0002-2017-01

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	45.6	F	51 - 123
EPA 8270D	Tetrachloro-m-xylene	32.9	P	31 - 111
EPA 8276	Decachlorobiphenyl	43.4	P	41 - 106

Lab Sample ID: 1892983

Field Sample ID: G2TLHR0002-2017-01

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	100	P	62 - 132
EPA 8270D	Simazine-d10	96.8	P	72 - 127

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B

Run ID: A76016

Included Lab Sample IDs: 1892976

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.6	100	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A76023

Included Lab Sample IDs: 1892976

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A76027

Included Lab Sample IDs: 1892978

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.1	97.4	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A76043
Included Lab Sample IDs: 1892980

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	105	108	P/P	60 - 150

Reference Method: SM 5310 B-00
Run ID: A76068
Included Lab Sample IDs: 1892977

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	102	97.5	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A76070
Included Lab Sample IDs: 1892977

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	92.2	92.2	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A76073
Included Lab Sample IDs: 1892980

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Glyphosate	117	114	P/P	70 - 160

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A76115
Included Lab Sample IDs: 1892977

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	96.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A76117
Included Lab Sample IDs: 1892977

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	101	P/P	90 - 110

Reference Method: EPA 8276
Run ID: A76140
Included Lab Sample IDs: 1892982

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	96.4		P	80 - 120
Toxaphene	107		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A76148
Included Lab Sample IDs: 1892976

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A76148

Included Lab Sample IDs: 1892976

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sulfate	97.5	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A76173

Included Lab Sample IDs: 1892977

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	96.2	97.0	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A76198

Included Lab Sample IDs: 1892984

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	101	98.9	P/P	90 - 110
Cadmium	98.2	97.2	P/P	90 - 110
Chromium	98.2	98.1	P/P	90 - 110
Copper	102	101	P/P	90 - 110
Lead	99.5	98.8	P/P	90 - 110
Nickel	103	102	P/P	90 - 110
Silver	97.9	96.6	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A76242

Included Lab Sample IDs: 1892976

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

Reference Method: EPA 8321B

Run ID: A76248

Included Lab Sample IDs: 1892981

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pyraclostrobin	103	114	P/P	60 - 150

Reference Method: EPA 8270D

Run ID: A76297

Included Lab Sample IDs: 1892982

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	98.2		P	80 - 120
Alpha-BHC	97.4		P	80 - 120
Alpha-Chlordane	101		P	80 - 120
Beta-BHC	98.0		P	80 - 120
Carbophenothion	95.7		P	80 - 120
Chlorothalonil	97.3		P	80 - 120
Cypermethrin	88.0		P	80 - 120
DDD-p,p'	95.7		P	80 - 120
DDE-p,p'	102		P	80 - 120
DDT-p,p'	108		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D

Run ID: A76297

Included Lab Sample IDs: 1892982

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Delta-BHC	102		P	80 - 120
Dicofol	98.2		P	80 - 120
Dieldrin	98.9		P	80 - 120
Endosulfan I	98.1		P	80 - 120
Endosulfan II	87.1		P	80 - 120
Endosulfan Sulfate	92.8		P	80 - 120
Endrin	97.2		P	80 - 120
Endrin Ketone	93.1		P	80 - 120
Gamma-BHC	99.2		P	80 - 120
Gamma-Chlordane	100		P	80 - 120
Heptachlor	97.4		P	80 - 120
Heptachlor Epoxide	99.1		P	80 - 120
Methoxychlor	108		P	80 - 120
Mirex	101		P	80 - 120
Permethrin	91.7		P	80 - 120
Trifluralin	98.1		P	80 - 120

Reference Method: EPA 8270D

Run ID: A76306

Included Lab Sample IDs: 1892983

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	99.5		P	80 - 120
Alachlor	98.6		P	80 - 120
Ametryn	97.5		P	80 - 120
Atrazine	104		P	80 - 120
Atrazine Desethyl	99.8		P	80 - 120
Azinphos Methyl	92.4		P	80 - 120
Bromacil	97.5		P	80 - 120
Butylate	99.7		P	80 - 120
Chlorpyrifos Ethyl	97.4		P	80 - 120
Chlorpyrifos Methyl	97.9		P	80 - 120
Cyanazine	93.5		P	80 - 120
Demeton	95.7		P	80 - 120
Diazinon	95.8		P	80 - 120
Disulfoton	93.2		P	80 - 120
EPTC	101		P	80 - 120
Ethion	90.8		P	80 - 120
Ethoprop	95.3		P	80 - 120
Fenamiphos	90.2		P	80 - 120
Fipronil	96.4		P	80 - 120
Fipronil Sulfide	95.9		P	80 - 120
Fipronil Sulfone	95.1		P	80 - 120
Fonofos	92.5		P	80 - 120
Hexazinone	99.7		P	80 - 120
Malathion	98.9		P	80 - 120
Metaxyl	97.7		P	80 - 120
Metolachlor	101		P	80 - 120
Metribuzin	91.7		P	80 - 120
Mevinphos	97.3		P	80 - 120
Molinate	100		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D
Run ID: A76306
Included Lab Sample IDs: 1892983

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Norflurazon	95.3		P	80 - 120
Parathion Ethyl	96.4		P	80 - 120
Parathion Methyl	96.8		P	80 - 120
Pendimethalin	92.3		P	80 - 120
Phorate	91.5		P	80 - 120
Prometon	96.5		P	80 - 120
Prometryn	91.2		P	80 - 120
Simazine	94.4		P	80 - 120
Terbufos	94.2		P	80 - 120
Terbuthylazine	96.4		P	80 - 120

Reference Method: EPA 8270D
Run ID: A76326
Included Lab Sample IDs: 1892982

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Endrin Aldehyde	95.3		P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A76346
Included Lab Sample IDs: 1892984

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	105	103	P/P	90 - 110
Iron	102	102	P/P	90 - 110
Magnesium	104	103	P/P	90 - 110
Potassium	103	103	P/P	90 - 110
Sodium	102	102	P/P	90 - 110
Zinc	103	100	P/P	90 - 110

Reference Method: USGS O-2060-01
Run ID: A76477
Included Lab Sample IDs: 1892980

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	89.2	85.2	P/P	50 - 150
Acetaminophen	96.4	122	P/P	60 - 150
Bentazon	81.2	84.0	P/P	50 - 150
Carbamazepine	99.2	104	P/P	60 - 150
Diuron	121	114	P/P	60 - 150
Fenuron	102	111	P/P	60 - 150
Fluridone	112	118	P/P	60 - 150
Imidacloprid	105	118	P/P	60 - 150
Linuron	96.8	107	P/P	60 - 150
MCPP	90.0	88.8	P/P	50 - 150
Primidone	94.0	110	P/P	60 - 150
Triclopyr	90.0	90.4	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: SM 4500 F-C-97
 Run ID: A76528
 Included Lab Sample IDs: 1892976

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	103	103	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
EPA 180.1 Rev. 2.0	Turbidity						0.897	
EPA 200.7 Rev. 4.4	Calcium	106		110	107	110		1.21
	Iron	102		104	104	106		1.54
	Magnesium	107		111	109	111		1.50
	Potassium	97.7		102	99.8	100		0.402
	Sodium	102		98.4	105			1.57
	Zinc	97.7		99.3	100	101		0.568
EPA 200.8 Rev. 5.4	Arsenic	99.9		98.2	99.7	98.4		1.26
	Cadmium	96.6		98.2	98.4	95.6		2.90
	Chromium	96.0		94.9	96.6	94.9		1.83
	Copper	98.6		99.0	98.5	97.8		0.677
	Lead	97.4		97.2	98.5	96.8		1.67
	Nickel	101		99.8	100	99.4		0.591
	Silver	94.9		95.4	94.6	93.7		0.953
EPA 300.0 Rev. 2.1	Chloride	101		97.3	95.5		0.0770	
	Sulfate	99.8		98.8	98.4		0.593	
EPA 350.1 Rev. 2.0	Ammonia-N	101		102	98.2			4.10
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	95.1		88.6	89.9			1.29
EPA 353.2 Rev. 2.0	NO2NO3-N	103		102	102			0.489
EPA 365.1 Rev. 2.0	Total-P	102		102	97.8			4.29
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.2		93.5	95.2			1.53
EPA 8270D	Acetochlor	105	89.2	99.0	98.8	15.9		0.220
	Alachlor	102	84.5	92.5	92.4	18.5		0.128
	Aldrin	49.7	46.3	59.2	70.7	7.13		17.6
	Alpha-BHC	93.1	92.6	86.6	110	0.503		24.0
	Alpha-Chlordane	94.0	86.3	75.0	88.4	8.54		16.5
	Ametryn	126	109	122	125	14.4		2.89
	Atrazine	108	92.0	99.3	97.3	15.9		1.67
	Atrazine Desethyl	76.0	67.8	65.9	61.9	11.5		6.24
	Azinphos Methyl	144	131	147	127	9.43		14.3
	Beta-BHC	107	107	89.2	109	0.0541		20.0
	Bromacil	88.1	77.3	92.7	92.1	13.0		0.607
	Butylate	52.5	48.4	41.4	39.2	8.11		5.36
	Carbophenothion	109	110	125	147	1.12		16.1
	Chlorothalonil	23.8	61.7	148	153	88.5		3.21
	Chlorpyrifos Ethyl	99.8	87.2	93.3	93.3	13.4		0.0469
	Chlorpyrifos Methyl	97.7	86.1	89.3	85.7	12.6		4.12
	Cyanazine	122	105	115	109	14.9		5.56
	Cypermethrin	101	83.2	109	140	18.9		24.6

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270D	DDD-p,p'	100	91.7	78.7	95.2	9.11	19.0
	DDE-p,p'	92.0	89.0	68.5	85.6	3.27	22.2
	DDT-p,p'	98.8	95.4	68.7	79.0	3.56	13.9
	Delta-BHC	124	127	116	135	2.40	14.4
	Demeton	102	94.6	96.9	94.3	7.25	2.64
	Diazinon	101	84.5	97.6	97.4	17.3	0.233
	Dicofol	44.1	33.8	11.8	20.1	26.5	51.9
	Dieldrin	92.6	85.6	72.3	85.5	7.84	16.7
	Disulfoton	99.3	92.0	98.6	89.5	7.71	9.59
	Endosulfan I	100	95.3	84.3	96.8	5.08	13.8
	Endosulfan II	102	98.3	88.6	105	3.73	17.2
	Endosulfan Sulfate	95.2	93.0	86.4	96.2	2.32	10.7
	Endrin	102	91.2	84.6	87.7	11.7	3.50
	Endrin Aldehyde	89.3	82.8	81.3	96.8	7.60	17.4
	Endrin Ketone	93.6	91.1	90.6	110	2.71	19.3
	EPTC	51.4	47.9	39.7	37.3	7.10	6.18
	Ethion	126	112	120	117	12.3	2.84
	Ethoprop	103	85.1	96.8	93.6	18.6	3.40
	Fenamiphos	150	131	143	141	13.2	1.13
	Fipronil	113	99.2	113	108	13.2	3.59
	Fipronil Sulfide	106	88.1	99.5	91.9	18.0	8.01
	Fipronil Sulfone	102	91.1	100	90.2	10.9	9.15
	Fonofos	97.9	82.9	95.5	89.3	16.5	6.72
	Gamma-BHC	103	102	84.0	103	0.727	20.4
	Gamma-Chlordane	91.1	82.9	74.9	87.6	9.39	15.6
	Heptachlor	76.6	73.7	66.6	73.5	3.87	9.76
	Heptachlor Epoxide	94.2	87.8	75.6	88.9	7.04	16.2
	Hexazinone	93.3	95.5	94.1	87.9	2.31	6.02
	Malathion	102	98.5	103	92.9	3.75	10.8
	Metalaxyl	98.8	85.1	96.7	95.4	14.9	1.37
	Methoxychlor	108	100	80.3	93.5	7.65	15.1
	Metolachlor	110	91.1	97.9	101	18.8	2.56
	Metribuzin	111	94.2	104	98.0	15.9	5.54
	Mevinphos	95.4	81.9	95.6	84.4	15.3	12.4
	Mirex	77.1	72.4	64.5	78.7	6.35	19.8
	Molinate	63.3	55.7	54.5	52.2	12.9	4.39
	Norflurazon	112	97.5	114	105	14.2	7.92
	Parathion Ethyl	98.7	87.9	98.1	90.6	11.6	7.92
	Parathion Methyl	91.9	85.8	91.6	85.6	6.81	6.78
	Pendimethalin	97.4	86.1	99.3	93.9	12.3	5.61
	Permethrin	99.6	83.3	98.9	124	17.8	22.2
	Phorate	109	87.1	97.3	95.5	22.8	1.87
	Prometon	115	94.8	115	112	19.5	2.69
	Prometryn	118	102	116	115	13.8	0.528
	Simazine	105	88.9	94.0	89.3	16.8	5.17
	Terbufos	100	85.9	96.1	93.2	15.4	3.08
	Terbuthylazine	99.0	86.0	92.3	90.5	14.1	1.94
	Trifluralin	147	126	139	176	15.4	23.7
EPA 8276	Chlordane	77.2	84.6	83.4	76.9	9.10	8.10
	Toxaphene	92.7	90.9	115	112	1.96	3.05
EPA 8321B	Glyphosate	129		124	128		2.86
	Pyraclostrobin	94.4		94.2	86.2		8.87
	Sucralose	113		110	110		0.0
SM 2120 B	Color (true)						2.06

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
					LCS	
SM 2320 B-97	Total Alkalinity	103			0.653	
SM 2540 C-97	TDS				3.97	
SM 4500 F-C-97	Fluoride	102	101	102		0.947
SM 5310 B-00	Organic Carbon	104	103	103		0.150
USGS O-2060-01	2,4-D	73.9	62.4	66.3		5.43
	Acetaminophen	83.4	101	81.8		20.6
	Bentazon	48.0	47.2	49.4		4.29
	Carbamazepine	109	89.2	90.7		1.73
	Diuron	106	76.3	80.6		4.34
	Fenuron	105	49.5	49.3		0.324
	Fluridone	102	71.1	74.9		4.39
	Imidacloprid	106	154	163		5.87
	Linuron	98.6	91.2	94.6		3.66
	MCPP	79.2	56.8	61.2		7.46
	Primidone	105	81.5	84.5		3.61
	Triclopyr	77.4	60.1	63.0		4.68

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1892976
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1892984
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1892984
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1892976
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1892976
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1892977
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1892977
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1892977
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1892977
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1892978
EPA 8270D / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	1892982
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides (ultra trace level) in water matrices by GC/MS/MS	1892983
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	1892982
EPA 8321B / E31780	Glyphosate in water matrices by HPLC/MS/MS	1892980
EPA 8321B / E31780	Pyraclostrobin in water matrices by HPLC/MS/MS	1892981
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	1892980
SM 2120 B / E31780	True Color measured at 450 nm	1892976
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1892976
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1892976
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1892976
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1892976
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1892977
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1892980

Reference Method Descriptions

Method / DoH Cert #	Description	<u>Associated Samples</u>
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1892980

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	04/26/2017			04/26/2017 16:32	Sima Feizi	1892976
EPA 200.7 Rev. 4.4	04/26/2017	05/03/2017	Elliott D. Healy	05/10/2017	Martin Acosta	1892984
EPA 200.8 Rev. 5.4	04/26/2017	05/03/2017	Elliott D. Healy	05/04/2017	Betina Topolski	1892984
EPA 300.0 Rev. 2.1	04/26/2017			05/04/2017	Ping Hua	1892976
EPA 350.1 Rev. 2.0	04/26/2017			04/27/2017	Julie Michelle Frank	1892977
EPA 351.2 Rev. 2.0	04/26/2017	05/01/2017	Adrian Shelby	05/02/2017	Joseph Suarez	1892977
EPA 353.2 Rev. 2.0	04/26/2017			05/02/2017	Beverly Y. Sanders	1892977
EPA 365.1 Rev. 2.0	04/26/2017	05/01/2017	Vijayalakshmi Reddy	05/02/2017	Lipi Saha	1892977
EPA 365.1 Rev. 2.0 dissolved	04/26/2017			04/26/2017 16:12	Anthony C. Onicha	1892978
EPA 8270D	04/26/2017	04/28/2017	Fe-Val Siddell	05/02/2017	Marek Topolski	1892982
	04/26/2017	04/28/2017	Fe-Val Siddell	05/10/2017	Marek Topolski	1892982
	04/26/2017	05/01/2017	Rasheda Ghaffari	05/03/2017	Irina Carbone	1892983
EPA 8276	04/26/2017	04/28/2017	Fe-Val Siddell	05/02/2017	Vandana T. Nagar	1892982
EPA 8321B	04/26/2017	04/27/2017	Mohammad Ghaffari	04/27/2017	Mohammad Ghaffari	1892980
	04/26/2017	04/28/2017	Mohammad Ghaffari	04/28/2017	Mohammad Ghaffari	1892980
	04/26/2017	04/29/2017	Fe-Val Siddell	05/05/2017	Juyoung Kim	1892981
SM 2120 B	04/26/2017			04/26/2017 16:36	Julia Storbeck	1892976
SM 2320 B-97	04/26/2017			05/06/2017	Dale L. Simmons	1892976
SM 2540 C-97	04/26/2017			05/01/2017	Yijie Li	1892976
SM 2540 D-97	04/26/2017			05/01/2017	Yijie Li	1892976
SM 4500 F-C-97	04/26/2017			05/19/2017	Dale L. Simmons	1892976
SM 5310 B-00	04/26/2017			04/28/2017	Julie Michelle Frank	1892977
USGS O-2060-01	04/26/2017	04/29/2017	Hoor Shaik	05/14/2017	Juyoung Kim	1892980