

Chemical Analysis Report

WQ-ASSESS-2017-03-29-02

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

Event Description: **kit: C w/ Pesticides**

Request ID: **RQ-2017-03-20-30**

Customer: **WQ-ASSESS**

Project ID: **SMP**

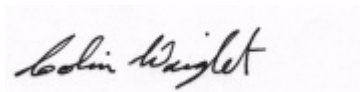
Send Reports to:
FL Dept. of Environmental Protection

2600 Blair Stone Rd.
Tallahassee, FL 32399-2400
Attn: Michael Eckles

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Certified by: Colin Wright, Program Administrator

Date Certified: 20-APR-2017 12:11

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light gray 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: Cherry Lake Middle

Collection Date/Time: 03/29/2017 11:35

Field ID: G1TLHR0048-2017-01

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1884348	EPA 180.1 Rev. 2.0	Turbidity	0.65		NTU	P322466	
	EPA 300.0 Rev. 2.1	Chloride	6.6		mg Cl/L	P323032	
		Sulfate	2.6		mg SO4/L	P323035	
	SM 2120 B	Color (true)	5.3	I	PCU	P322436	
	SM 2320 B-97	Total Alkalinity	9.0		mg CaCO3/L	P322916	
	SM 2540 C-97	TDS	37		mg/L	P322831	
	SM 2540 D-97	TSS	3	I	mg/L	P323020	
	SM 4500 F-C-97	Fluoride	0.053	I	mg F/L	P322919	
1884349	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P322500	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.48		mg N/L	P322564	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P322571	
	EPA 365.1 Rev. 2.0	Total-P	0.016		mg P/L	P322669	
	SM 5310 B-00	Organic Carbon	4.6		mg C/L	P322512	
1884350	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P322447	
1884354	EPA 200.7 Rev. 4.4	Calcium	3.04		mg/L	P322663	
		Iron	30	U	ug/L	P322663	
		Magnesium	1.25		mg/L	P322663	
		Potassium	0.73	I	mg/L	P322663	
		Sodium	4.2		mg/L	P322663	
		Zinc	5.0	U	ug/L	P322663	
	EPA 200.8 Rev. 5.4	Arsenic	1.53		ug/L	P322663	
		Cadmium	0.020	U	ug/L	P322663	
		Chromium	0.40	U	ug/L	P322663	
		Copper	0.43	I	ug/L	P322663	
		Lead	0.12	I	ug/L	P322663	
		Nickel	0.20	U	ug/L	P322663	
		Silver	0.010	U	ug/L	P322663	

Ref. Method and Comment:

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

SM 4500 F-C-97: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Cherry Lake Middle

Collection Date/Time: 03/29/2017 11:35

Field ID: G1TLHR0048-2017-01

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1884352	EPA 8321B	Glyphosate**	10	U	ug/L	P322292	
		Sucralose**	0.026	I	ug/L	P322428	
	USGS O-2060-01	2,4-D	0.028		ug/L	P322532	
		Diuron	0.049		ug/L	P322532	MS
		Fenuron	0.0080	U	ug/L	P322532	
		Imidacloprid	0.0040	U	ug/L	P322532	
		Bentazon	0.0040	U	ug/L	P322532	
		Linuron	0.0040	U	ug/L	P322532	
		Acetaminophen**	0.010	U	ug/L	P322532	

Field ID: G1TLHR0048-2017-01

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1884352	USGS O-2060-01	MCPD	0.0040	U	ug/L	P322532	
		Carbamazepine**	4.0E-04	U	ug/L	P322532	
		Triclopyr**	0.010	U	ug/L	P322532	
		Primidone**	0.0080	U	ug/L	P322532	
		Fluridone**	4.0E-04	U	ug/L	P322532	MS
1884353	EPA 8321B	Pyraclostrobin**	0.0020	U	ug/L	P322599	
1884355	EPA 8270D	Aldrin	4.5	U	ng/L	P322618	
		Alpha-BHC	2.2	U	ng/L	P322618	
		Beta-BHC	4.5	U	ng/L	P322618	
		Delta-BHC	4.5	U	ng/L	P322618	
		Gamma-BHC	4.5	UJ	ng/L	P322618	LCS
		Carbophenothion	4.5	U	ng/L	P322618	
		Chlorothalonil	2.2	U	ng/L	P322618	
		Cypermethrin	22	U	ng/L	P322618	
		DDD-p,p'	2.2	U	ng/L	P322618	
		DDE-p,p'	3.4	U	ng/L	P322618	
		DDT-p,p'	3.4	U	ng/L	P322618	
		Dieldrin	4.5	U	ng/L	P322618	
		Endosulfan I	4.5	U	ng/L	P322618	
		Endosulfan II	4.5	U	ng/L	P322618	
		Endosulfan Sulfate	2.2	U	ng/L	P322618	
		Endrin	2.2	U	ng/L	P322618	
		Endrin Aldehyde	2.2	U	ng/L	P322618	
		Heptachlor	1.7	U	ng/L	P322618	
		Heptachlor Epoxide	2.2	U	ng/L	P322618	
		Methoxychlor	4.5	U	ng/L	P322618	
		Mirex	2.2	U	ng/L	P322618	
		Permethrin	11	U	ng/L	P322618	
		Trifluralin	1.1	U	ng/L	P322618	
		Alpha-Chlordane	1.1	U	ng/L	P322618	
		Gamma-Chlordane	1.1	U	ng/L	P322618	
		Endrin Ketone	2.2	U	ng/L	P322618	
		Dicofol	34	U	ng/L	P322618	
1884356		Ametryn	0.31	U	ng/L	P322438	
		Atrazine	5.9		ng/L	P322438	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P322438	
		Chlorpyrifos Methyl	0.097	U	ng/L	P322438	
		Disulfoton	0.31	U	ng/L	P322438	
		Ethion	0.15	U	ng/L	P322438	
		Ethoprop	0.097	U	ng/L	P322438	
		Hexazinone	0.48	U	ng/L	P322438	
		Malathion	0.34	U	ng/L	P322438	
		Metribuzin	0.19	U	ng/L	P322438	
		Mevinphos	0.48	U	ng/L	P322438	
		Norflurazon	0.48	U	ng/L	P322438	

Field ID: G1TLHR0048-2017-01

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1884356	EPA 8270D	Phorate	0.24	U	ng/L	P322438	
		Prometryn	0.19	U	ng/L	P322438	
		Simazine	0.48	U	ng/L	P322438	
		Atrazine Desethyl	2.6	I	ng/L	P322438	
		Prometon	0.87	U	ng/L	P322438	
		Fipronil	0.24	U	ng/L	P322438	
		Molinate	0.29	U	ng/L	P322438	
		Pendimethalin	1.5	U	ng/L	P322438	
		Terbufos	0.097	U	ng/L	P322438	
		EPTC	1.2	U	ng/L	P322438	
		Terbutylazine	0.41	U	ng/L	P322438	
		Bromacil	0.48	U	ng/L	P322438	
		Fipronil Sulfide	0.15	U	ng/L	P322438	
		Fipronil Sulfone	0.15	U	ng/L	P322438	
		Alachlor	0.24	U	ng/L	P322438	
		Azinphos Methyl	2.2	U	ng/L	P322438	
		Butylate	0.39	U	ng/L	P322438	
		Demeton	0.97	U	ng/L	P322438	
		Diazinon	0.12	U	ng/L	P322438	
		Fenamiphos	0.24	U	ng/L	P322438	
		Fonofos	0.19	U	ng/L	P322438	
		Metalaxyl	0.19	U	ng/L	P322438	
		Metolachlor	0.35	I	ng/L	P322438	
		Acetochlor	0.24	U	ng/L	P322438	
		Cyanazine	0.48	U	ng/L	P322438	
		Parathion Ethyl	0.24	U	ng/L	P322438	
		Parathion Methyl	0.24	U	ng/L	P322438	

Ref. Method and Comment:

USGS O-2060-01: MS accuracy for bentazon could not be assessed due to high concentration of parameter in the spiked sample.

EPA 8270D: Refer to the narrative for an explanation of QC Codes.

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P322466

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P322663

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P322663

Component	Result	Code	Units
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P322663

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: P323032

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P323035

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P322500

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P322564

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P322571

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P322669

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P322447

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

Reference Method: EPA 8270D

Batch ID: P322438

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
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
Cyanazine	0.50	U	ng/L
Demeton	1.0	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
Terbutylazine	0.42	U	ng/L

Reference Method: EPA 8270D

Batch ID: P322618

Component	Result	Code	Units
Aldrin	4.0	U	ng/L
Alpha-BHC	2.0	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270D**Batch ID: P322618**

Component	Result	Code	Units
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 8321B**Batch ID: P322292**

Component	Result	Code	Units
Glyphosate	10	U	ug/L

Reference Method: EPA 8321B**Batch ID: P322428**

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B**Batch ID: P322599**

Component	Result	Code	Units
Pyraclostrobin	0.0020	U	ug/L

Reference Method: SM 2120 B**Batch ID: P322436**

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report Method Blank Results

Reference Method: SM 2320 B-97
 Batch ID: P322916

Component	Result	Code	Units
Total Alkalinity	0.65	U	mg CaCO ₃ /L

Reference Method: SM 2540 C-97
 Batch ID: P322831

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
 Batch ID: P323020

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
 Batch ID: P322919

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
 Batch ID: P322512

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

Reference Method: USGS O-2060-01
 Batch ID: P322532

Component	Result	Code	Units
2,4-D	0.0040	U	ug/L
Acetaminophen	0.010	U	ug/L
Bentazon	0.0040	U	ug/L
Carbamazepine	4.0E-04	U	ug/L
Diuron	0.0040	U	ug/L
Fenuron	0.0080	U	ug/L
Fluridone	4.0E-04	U	ug/L
Imidacloprid	0.0040	U	ug/L
Linuron	0.0040	U	ug/L
MCP	0.0040	U	ug/L
Primidone	0.0080	U	ug/L
Triclopyr	0.010	U	ug/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
 Batch ID: P322663

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	102		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P322663

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Iron	104		P	85 - 115
Magnesium	103		P	85 - 115
Potassium	102		P	85 - 115
Sodium	102		P	85 - 115
Zinc	99.7		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P322663

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	96.9		P	85 - 115
Cadmium	93.7		P	85 - 115
Chromium	96.6		P	85 - 115
Copper	95.4		P	85 - 115
Lead	99.2		P	85 - 115
Nickel	97.6		P	85 - 115
Silver	98.1		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P323032

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P323035

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	99.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P322500

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P322564

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P322571

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P322669

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

Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P322669

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P322447

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	106		P	90 - 110

Reference Method: EPA 8270D

Batch ID: P322438

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	84.6	90.7	P/P	78 - 118
Alachlor	84.7	90.3	P/P	77 - 119
Ametryn	95.9	115	P/P	61 - 136
Atrazine	92.7	93.1	P/P	73 - 120
Atrazine Desethyl	61.5	65.8	P/P	16 - 122
Azinphos Methyl	91.1	106	P/P	69 - 186
Bromacil	81.4	77.9	P/P	40 - 125
Butylate	54.9	56.5	P/P	32 - 87.0
Chlorpyrifos Ethyl	84.3	83.7	P/P	53 - 110
Chlorpyrifos Methyl	77.6	81.9	P/P	31 - 119
Cyanazine	91.8	99.5	P/P	36 - 224
Demeton	84.6	93.5	P/P	39 - 122
Diazinon	82.4	89.0	P/P	75 - 119
Disulfoton	81.1	91.2	P/P	42 - 139
EPTC	57.9	52.7	P/P	33 - 96.0
Ethion	90.0	88.8	P/P	63 - 127
Ethoprop	74.8	79.3	P/P	65 - 107
Fenamiphos	101	97.9	P/P	64 - 137
Fipronil	94.1	96.6	P/P	60 - 126
Fipronil Sulfide	89.9	86.2	P/P	58 - 124
Fipronil Sulfone	89.3	82.4	P/P	57 - 126
Fonofos	72.7	76.7	P/P	65 - 111
Hexazinone	90.8	86.5	P/P	46 - 151
Malathion	88.7	93.0	P/P	68 - 132
Metaxyl	82.2	92.7	P/P	51 - 132
Metolachlor	90.0	92.6	P/P	78 - 119
Metribuzin	92.5	95.8	P/P	64 - 138
Mevinphos	72.9	75.2	P/P	34 - 128
Molinate	62.2	59.0	P/P	44 - 101
Norflurazon	92.5	88.3	P/P	63 - 129
Parathion Ethyl	87.7	86.3	P/P	80 - 109
Parathion Methyl	81.2	87.6	P/P	74 - 125
Pendimethalin	88.0	88.0	P/P	48 - 134
Phorate	76.1	84.4	P/P	52 - 119
Prometon	90.2	100	P/P	69 - 124
Prometryn	89.6	102	P/P	66 - 124
Simazine	96.6	94.9	P/P	61 - 134
Terbufos	71.5	76.8	P/P	58 - 115
Terbutylazine	91.4	86.1	P/P	77 - 113

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270D

Batch ID: P322618

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	49.2	42.1	P/P	30 - 83.0
Alpha-BHC	70.5	67.8	P/P	62 - 119
Alpha-Chlordane	76.1	71.1	P/P	56 - 119
Beta-BHC	69.4	61.1	P/P	54 - 141
Carbophenothion	86.1	86.1	P/P	33 - 147
Chlorothalonil	64.5	75.3	P/P	25 - 175
Cypermethrin	99.2	98.9	P/P	50 - 155
DDD-p,p'	77.1	70.1	P/P	56 - 135
DDE-p,p'	76.3	71.6	P/P	48 - 120
DDT-p,p'	79.7	74.7	P/P	51 - 121
Delta-BHC	108	113	P/P	65 - 163
Dicofol	73.6	62.2	P/P	15 - 112
Dieldrin	80.2	71.8	P/P	59 - 134
Endosulfan I	84.3	77.4	P/P	65 - 142
Endosulfan II	93.6	89.7	P/P	65 - 154
Endosulfan Sulfate	92.1	91.1	P/P	65 - 136
Endrin	74.5	72.3	P/P	53 - 156
Endrin Aldehyde	87.5	83.7	P/P	47 - 156
Endrin Ketone	93.1	86.9	P/P	70 - 124
Gamma-BHC	67.0	62.0	P/F	64 - 142
Gamma-Chlordane	75.7	70.8	P/P	55 - 114
Heptachlor	75.1	68.2	P/P	42 - 105
Heptachlor Epoxide	76.9	72.9	P/P	67 - 120
Methoxychlor	82.2	73.5	P/P	63 - 134
Mirex	69.0	62.8	P/P	40 - 90.0
Permethrin	83.0	77.6	P/P	36 - 144
Trifluralin	84.3	79.2	P/P	40 - 170

Reference Method: EPA 8321B

Batch ID: P322292

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Glyphosate	107		P	40 - 140

Reference Method: EPA 8321B

Batch ID: P322428

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	69.6		P	40 - 140

Reference Method: EPA 8321B

Batch ID: P322599

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Pyraclostrobin	112		P	40 - 140

Reference Method: SM 2320 B-97

Batch ID: P322916

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	104		P	95 - 108

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97

Batch ID: P322919

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	94.5		P	92 - 103

Reference Method: SM 5310 B-00

Batch ID: P322512

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.6		P	85 - 115

Reference Method: USGS O-2060-01

Batch ID: P322532

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	91.2		P	40 - 140
Acetaminophen	86.4		P	40 - 140
Bentazon	110		P	40 - 140
Carbamazepine	114		P	40 - 140
Diuron	76.8		P	40 - 140
Fenuron	97.6		P	40 - 140
Fluridone	85.6		P	40 - 140
Imidacloprid	88.4		P	40 - 160
Linuron	132		P	40 - 140
MCPP	85.6		P	40 - 140
Primidone	97.2		P	40 - 140
Triclopyr	88.0		P	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P322663

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1884303	Calcium	100		P	80 - 120
1884303	Iron	104		P	80 - 120
1884303	Magnesium	101		P	80 - 120
1884303	Potassium	101		P	80 - 120
1884303	Sodium	102		P	80 - 120
1884303	Zinc	98.8		P	80 - 120
1884721	Calcium	99.5		P	80 - 120
1884721	Iron	103	104	P/P	80 - 120
1884721	Magnesium	98.4		P	80 - 120
1884721	Potassium	103	103	P/P	80 - 120
1884721	Sodium	101		P	80 - 120
1884721	Zinc	96.8	98.0	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P322663

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1884303	Arsenic	96.6		P	80 - 120
1884303	Cadmium	92.5		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P322663

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1884303	Chromium	95.1		P	80 - 120
1884303	Copper	92.2		P	80 - 120
1884303	Lead	97.9		P	80 - 120
1884303	Nickel	93.6		P	80 - 120
1884303	Silver	98.1		P	80 - 120
1884721	Arsenic	98.8	97.2	P/P	80 - 120
1884721	Cadmium	96.3	95.2	P/P	80 - 120
1884721	Chromium	98.1	96.7	P/P	80 - 120
1884721	Copper	92.9	92.5	P/P	80 - 120
1884721	Lead	98.3	98.3	P/P	80 - 120
1884721	Nickel	95.4	94.0	P/P	80 - 120
1884721	Silver	99.2	98.8	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P323032

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1884258	Chloride	101		P	90 - 110
1884348	Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P323035

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1884258	Sulfate	98.5		P	90 - 110
1884348	Sulfate	99.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P322500

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1884343	Ammonia-N	101	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P322564

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1884349	Kjeldahl Nitrogen	101	106	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P322571

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1884328	NO2NO3-N	102	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P322669

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1884328	Total-P	106	105	P/P	90 - 110

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P322447

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1884264	O-Phosphate-P	96.4	95.9	P/P	90 - 110

Reference Method: EPA 8270D

Batch ID: P322438

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1883507	Acetochlor	96.6	86.8	P/P	74 - 123
1883507	Alachlor	100	90.5	P/P	73 - 124
1883507	Ametryn	141	124	P/P	56 - 149
1883507	Atrazine	108	92.4	P/P	73 - 124
1883507	Atrazine Desethyl	53.2	55.4	P/P	12 - 103
1883507	Azinphos Methyl	104	99.2	P/P	60 - 202
1883507	Bromacil	108	85.3	P/P	42 - 133
1883507	Butylate	44.1	38.2	P/P	10 - 85.0
1883507	Chlorpyrifos Ethyl	83.4	77.8	P/P	53 - 113
1883507	Chlorpyrifos Methyl	87.1	77.7	P/P	40 - 115
1883507	Cyanazine	106	98.9	P/P	22 - 210
1883507	Demeton	116	112	P/P	17 - 149
1883507	Diazinon	102	90.8	P/P	72 - 124
1883507	Disulfoton	88.2	84.1	P/P	43 - 139
1883507	EPTC	47.2	43.3	P/P	10 - 86.0
1883507	Ethion	86.2	76.3	P/P	65 - 131
1883507	Ethoprop	99.9	92.4	P/P	59 - 110
1883507	Fenamiphos	85.7	78.8	P/P	57 - 138
1883507	Fipronil	105	93.9	P/P	40 - 130
1883507	Fipronil Sulfide	81.8	75.4	P/P	36 - 128
1883507	Fipronil Sulfone	80.7	68.5	P/P	16 - 145
1883507	Fonofos	90.7	87.0	P/P	60 - 112
1883507	Hexazinone	91.3	82.0	P/P	69 - 142
1883507	Malathion	96.4	86.0	P/P	68 - 132
1883507	Metalaxyl	91.7	83.0	P/P	66 - 118
1883507	Metolachlor	99.2	89.5	P/P	71 - 124
1883507	Metribuzin	107	101	P/P	61 - 140
1883507	Mevinphos	102	106	P/P	38 - 130
1883507	Molinate	61.4	57.3	P/P	23 - 99.0
1883507	Norflurazon	84.1	77.0	P/P	39 - 139
1883507	Parathion Ethyl	96.7	86.3	P/P	75 - 111
1883507	Parathion Methyl	102	92.8	P/P	64 - 130
1883507	Pendimethalin	102	91.9	P/P	26 - 173
1883507	Phorate	104	101	P/P	43 - 127
1883507	Prometon	114	99.9	P/P	50 - 144
1883507	Prometryn	91.2	89.6	P/P	69 - 126
1883507	Simazine	90.8	91.2	P/P	51 - 152
1883507	Terbufos	93.3	86.0	P/P	54 - 125
1883507	Terbutylazine	95.9	85.6	P/P	76 - 113

Reference Method: EPA 8270D

Batch ID: P322618

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1884727	Aldrin	57.0	62.6	P/P	30 - 83.0
1884727	Alpha-BHC	65.8	70.4	P/P	62 - 119

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270D

Batch ID: P322618

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1884727	Alpha-Chlordane	57.8	64.0	P/P	56 - 119
1884727	Beta-BHC	70.0	76.6	P/P	54 - 141
1884727	Carbophenothion	98.4	110	P/P	33 - 147
1884727	Chlorothalonil	105	93.5	P/P	25 - 175
1884727	Cypermethrin	95.5	113	P/P	50 - 155
1884727	DDD-p,p'	78.5	84.3	P/P	56 - 135
1884727	DDE-p,p'	73.4	79.4	P/P	48 - 120
1884727	DDT-p,p'	77.2	80.1	P/P	51 - 121
1884727	Delta-BHC	121	133	P/P	65 - 163
1884727	Dicofol	67.9	74.1	P/P	15 - 112
1884727	Dieldrin	76.9	79.3	P/P	59 - 134
1884727	Endosulfan I	82.3	93.8	P/P	65 - 142
1884727	Endosulfan II	92.6	102	P/P	65 - 154
1884727	Endosulfan Sulfate	102	108	P/P	65 - 136
1884727	Endrin	71.4	75.7	P/P	53 - 156
1884727	Endrin Aldehyde	85.9	87.5	P/P	47 - 156
1884727	Endrin Ketone	93.8	102	P/P	70 - 124
1884727	Gamma-BHC	65.8	70.5	P/P	64 - 142
1884727	Gamma-Chlordane	75.4	81.3	P/P	55 - 114
1884727	Heptachlor	70.9	76.6	P/P	42 - 105
1884727	Heptachlor Epoxide	75.8	82.2	P/P	67 - 120
1884727	Methoxychlor	77.4	80.9	P/P	63 - 134
1884727	Mirex	68.4	73.6	P/P	40 - 90.0
1884727	Permethrin	81.2	91.7	P/P	36 - 144
1884727	Trifluralin	100	109	P/P	40 - 170

Reference Method: EPA 8321B

Batch ID: P322292

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1884283	Glyphosate	82.4	86.0	P/P	40 - 140

Reference Method: EPA 8321B

Batch ID: P322428

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1884451	Sucralose	83.0	88.0	P/P	40 - 140

Reference Method: EPA 8321B

Batch ID: P322599

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1884219	Pyraclostrobin	84.4	90.4	P/P	40 - 140

Reference Method: SM 5310 B-00

Batch ID: P322512

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1884260	Organic Carbon	93.4	92.9	P/P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: USGS O-2060-01

Batch ID: P322532

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1884218	2,4-D	134	127	P/P	40 - 140
1884218	Acetaminophen	59.6	58.8	P/P	40 - 140
1884218	Carbamazepine	59.6	60.8	P/P	40 - 140
1884218	Diuron	33.2	39.6	F/F	40 - 140
1884218	Fenuron	47.6	46.8	P/P	40 - 140
1884218	Fluridone	32.0	32.4	F/F	40 - 140
1884218	Imidacloprid	102	111	P/P	40 - 160
1884218	Linuron	62.4	78.8	P/P	40 - 140
1884218	MCP	131	120	P/P	40 - 140
1884218	Primidone	90.0	76.0	P/P	40 - 140
1884218	Triclopyr	137	120	P/P	40 - 140

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P322466

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1884321	Turbidity	1.11	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P322663

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1884721	Calcium	0.503	Spike	P	0 - 20
1884721	Iron	1.04	Spike	P	0 - 20
1884721	Magnesium	0.507	Spike	P	0 - 20
1884721	Potassium	0.382	Spike	P	0 - 20
1884721	Sodium	1.06	Spike	P	0 - 20
1884721	Zinc	1.24	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P322663

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1884721	Arsenic	1.61	Spike	P	0 - 20
1884721	Cadmium	1.16	Spike	P	0 - 20
1884721	Chromium	1.34	Spike	P	0 - 20
1884721	Copper	0.431	Spike	P	0 - 20
1884721	Lead	0.0289	Spike	P	0 - 20
1884721	Nickel	1.40	Spike	P	0 - 20
1884721	Silver	0.429	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P323032

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1884258	Chloride	0.0733	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P323035

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1884258	Sulfate	0.775	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P322500

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1884343	Ammonia-N	1.98	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P322564

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1884349	Kjeldahl Nitrogen	3.60	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P322571

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1884328	NO2NO3-N	1.49	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P322669

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1884328	Total-P	0.653	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P322447

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1884264	O-Phosphate-P	0.483	Spike	P	0 - 20

Reference Method: EPA 8270D
 Batch ID: P322438

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1883507	Acetochlor	10.7	Spike	P	0 - 30
1883507	Alachlor	10.2	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D

Batch ID: P322438

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1883507	Ametryn	13.3	Spike	P	0 - 30
1883507	Atrazine	3.83	Spike	P	0 - 30
1883507	Atrazine Desethyl	3.46	Spike	P	0 - 30
1883507	Azinphos Methyl	4.82	Spike	P	0 - 30
1883507	Bromacil	23.2	Spike	P	0 - 30
1883507	Butylate	14.4	Spike	P	0 - 30
1883507	Chlorpyrifos Ethyl	6.97	Spike	P	0 - 30
1883507	Chlorpyrifos Methyl	11.4	Spike	P	0 - 30
1883507	Cyanazine	7.00	Spike	P	0 - 30
1883507	Demeton	2.81	Spike	P	0 - 30
1883507	Diazinon	11.5	Spike	P	0 - 30
1883507	Disulfoton	4.72	Spike	P	0 - 30
1883507	EPTC	8.56	Spike	P	0 - 30
1883507	Ethion	12.2	Spike	P	0 - 30
1883507	Ethoprop	7.85	Spike	P	0 - 30
1883507	Fenamiphos	8.43	Spike	P	0 - 30
1883507	Fipronil	11.1	Spike	P	0 - 30
1883507	Fipronil Sulfide	8.07	Spike	P	0 - 30
1883507	Fipronil Sulfone	12.3	Spike	P	0 - 30
1883507	Fonofos	4.17	Spike	P	0 - 30
1883507	Hexazinone	10.8	Spike	P	0 - 30
1883507	Malathion	11.4	Spike	P	0 - 30
1883507	Metaxyl	9.97	Spike	P	0 - 30
1883507	Metolachlor	9.75	Spike	P	0 - 30
1883507	Metribuzin	5.43	Spike	P	0 - 30
1883507	Mevinphos	3.24	Spike	P	0 - 30
1883507	Molinate	6.92	Spike	P	0 - 30
1883507	Norflurazon	8.86	Spike	P	0 - 30
1883507	Parathion Ethyl	11.4	Spike	P	0 - 30
1883507	Parathion Methyl	9.73	Spike	P	0 - 30
1883507	Pendimethalin	10.3	Spike	P	0 - 30
1883507	Phorate	2.70	Spike	P	0 - 30
1883507	Prometon	13.0	Spike	P	0 - 30
1883507	Prometryn	1.77	Spike	P	0 - 30
1883507	Simazine	0.406	Spike	P	0 - 30
1883507	Terbufos	8.04	Spike	P	0 - 30
1883507	Terbutylazine	11.3	Spike	P	0 - 30
LFB	Acetochlor	6.97	LCS	P	0 - 30
LFB	Alachlor	6.34	LCS	P	0 - 30
LFB	Ametryn	18.3	LCS	P	0 - 30
LFB	Atrazine	0.361	LCS	P	0 - 30
LFB	Atrazine Desethyl	6.75	LCS	P	0 - 30
LFB	Azinphos Methyl	14.8	LCS	P	0 - 30
LFB	Bromacil	4.40	LCS	P	0 - 30
LFB	Butylate	2.94	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	0.691	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	5.41	LCS	P	0 - 30
LFB	Cyanazine	8.14	LCS	P	0 - 30
LFB	Demeton	10.0	LCS	P	0 - 30
LFB	Diazinon	7.64	LCS	P	0 - 30
LFB	Disulfoton	11.7	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D

Batch ID: P322438

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	EPTC	9.34	LCS	P	0 - 30
LFB	Ethion	1.40	LCS	P	0 - 30
LFB	Ethoprop	5.83	LCS	P	0 - 30
LFB	Fenamiphos	3.03	LCS	P	0 - 30
LFB	Fipronil	2.68	LCS	P	0 - 30
LFB	Fipronil Sulfide	4.28	LCS	P	0 - 30
LFB	Fipronil Sulfone	8.01	LCS	P	0 - 30
LFB	Fonofos	5.38	LCS	P	0 - 30
LFB	Hexazinone	4.85	LCS	P	0 - 30
LFB	Malathion	4.72	LCS	P	0 - 30
LFB	Metalaxyl	11.9	LCS	P	0 - 30
LFB	Metolachlor	2.76	LCS	P	0 - 30
LFB	Metribuzin	3.48	LCS	P	0 - 30
LFB	Mevinphos	3.11	LCS	P	0 - 30
LFB	Molinate	5.33	LCS	P	0 - 30
LFB	Norflurazon	4.63	LCS	P	0 - 30
LFB	Parathion Ethyl	1.70	LCS	P	0 - 30
LFB	Parathion Methyl	7.62	LCS	P	0 - 30
LFB	Pendimethalin	0.0625	LCS	P	0 - 30
LFB	Phorate	10.3	LCS	P	0 - 30
LFB	Prometon	10.5	LCS	P	0 - 30
LFB	Prometryn	12.8	LCS	P	0 - 30
LFB	Simazine	1.71	LCS	P	0 - 30
LFB	Terbufos	7.16	LCS	P	0 - 30
LFB	Terbutylazine	6.03	LCS	P	0 - 30

Reference Method: EPA 8270D

Batch ID: P322618

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1884727	Aldrin	9.34	Spike	P	0 - 30
1884727	Alpha-BHC	6.79	Spike	P	0 - 30
1884727	Alpha-Chlordane	8.00	Spike	P	0 - 30
1884727	Beta-BHC	8.96	Spike	P	0 - 30
1884727	Carbophenothion	11.5	Spike	P	0 - 30
1884727	Chlorothalonil	11.6	Spike	P	0 - 30
1884727	Cypermethrin	17.1	Spike	P	0 - 30
1884727	DDD-p,p'	7.03	Spike	P	0 - 30
1884727	DDE-p,p'	7.88	Spike	P	0 - 30
1884727	DDT-p,p'	3.72	Spike	P	0 - 30
1884727	Delta-BHC	9.70	Spike	P	0 - 30
1884727	Dicofol	8.77	Spike	P	0 - 30
1884727	Dieldrin	2.98	Spike	P	0 - 30
1884727	Endosulfan I	13.0	Spike	P	0 - 30
1884727	Endosulfan II	9.65	Spike	P	0 - 30
1884727	Endosulfan Sulfate	5.88	Spike	P	0 - 30
1884727	Endrin	5.83	Spike	P	0 - 30
1884727	Endrin Aldehyde	1.80	Spike	P	0 - 30
1884727	Endrin Ketone	8.76	Spike	P	0 - 30
1884727	Gamma-BHC	6.97	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D

Batch ID: P322618

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1884727	Gamma-Chlordane	7.54	Spike	P	0 - 30
1884727	Heptachlor	7.79	Spike	P	0 - 30
1884727	Heptachlor Epoxide	8.10	Spike	P	0 - 30
1884727	Methoxychlor	4.50	Spike	P	0 - 30
1884727	Mirex	7.27	Spike	P	0 - 30
1884727	Permethrin	12.2	Spike	P	0 - 30
1884727	Trifluralin	8.56	Spike	P	0 - 30
LFB	Aldrin	15.5	LCS	P	0 - 30
LFB	Alpha-BHC	3.91	LCS	P	0 - 30
LFB	Alpha-Chlordane	6.84	LCS	P	0 - 30
LFB	Beta-BHC	12.8	LCS	P	0 - 30
LFB	Carbophenothion	0.0436	LCS	P	0 - 30
LFB	Chlorothalonil	15.3	LCS	P	0 - 30
LFB	Cypermethrin	0.285	LCS	P	0 - 30
LFB	DDD-p,p'	9.53	LCS	P	0 - 30
LFB	DDE-p,p'	6.31	LCS	P	0 - 30
LFB	DDT-p,p'	6.43	LCS	P	0 - 30
LFB	Delta-BHC	3.98	LCS	P	0 - 30
LFB	Dicofol	16.8	LCS	P	0 - 30
LFB	Dieldrin	11.1	LCS	P	0 - 30
LFB	Endosulfan I	8.46	LCS	P	0 - 30
LFB	Endosulfan II	4.33	LCS	P	0 - 30
LFB	Endosulfan Sulfate	1.17	LCS	P	0 - 30
LFB	Endrin	3.00	LCS	P	0 - 30
LFB	Endrin Aldehyde	4.48	LCS	P	0 - 30
LFB	Endrin Ketone	6.97	LCS	P	0 - 30
LFB	Gamma-BHC	7.87	LCS	P	0 - 30
LFB	Gamma-Chlordane	6.60	LCS	P	0 - 30
LFB	Heptachlor	9.59	LCS	P	0 - 30
LFB	Heptachlor Epoxide	5.36	LCS	P	0 - 30
LFB	Methoxychlor	11.2	LCS	P	0 - 30
LFB	Mirex	9.49	LCS	P	0 - 30
LFB	Permethrin	6.80	LCS	P	0 - 30
LFB	Trifluralin	6.30	LCS	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P322292

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1884283	Glyphosate	4.28	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P322428

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1884451	Sucralose	2.51	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P322599

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1884219	Pyraclostrobin	6.86	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P322436

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1884007	Color (true)	1.66	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P322916

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1884321	Total Alkalinity	0.157	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P322831

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1884321	TDS	7.49	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P322919

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1884321	Fluoride	0.520	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P322512

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1884260	Organic Carbon	0.404	Spike	P	0 - 20

Reference Method: USGS O-2060-01
Batch ID: P322532

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1884218	2,4-D	5.21	Spike	P	0 - 30
1884218	Acetaminophen	1.35	Spike	P	0 - 30
1884218	Bentazon	2.90	Spike	P	0 - 30
1884218	Carbamazepine	1.99	Spike	P	0 - 30
1884218	Diuron	17.6	Spike	P	0 - 30
1884218	Fenuron	1.69	Spike	P	0 - 30
1884218	Fluridone	0.897	Spike	P	0 - 30
1884218	Imidacloprid	8.27	Spike	P	0 - 30
1884218	Linuron	23.2	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: USGS O-2060-01
Batch ID: P322532

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1884218	MCP	8.92	Spike	P	0 - 30
1884218	Primidone	16.9	Spike	P	0 - 30
1884218	Triclopyr	13.4	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: 1884352
Field Sample ID: G1TLHR0048-2017-01

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Glyphosate 13C 15N	89.6	P	50 - 150
EPA 8321B	Sucralose-d6	80.5	P	40 - 150
USGS O-2060-01	2,4-D-d3	98.0	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	74.4	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	80.8	P	40 - 160
USGS O-2060-01	Diuron-d6	65.0	P	40 - 150
USGS O-2060-01	Primidone-d5	90.4	P	40 - 150

Lab Sample ID: 1884353
Field Sample ID: G1TLHR0048-2017-01

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Diuron-d6	115	P	40 - 150

Lab Sample ID: 1884355
Field Sample ID: G1TLHR0048-2017-01

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	58.1	P	51 - 123
EPA 8270D	Tetrachloro-m-xylene	40.9	P	31 - 111

Lab Sample ID: 1884356
Field Sample ID: G1TLHR0048-2017-01

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	74.2	P	62 - 132
EPA 8270D	Simazine-d10	84.7	P	72 - 127

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B
Run ID: A75443
Included Lab Sample IDs: 1884348

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
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Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B
Run ID: A75443
Included Lab Sample IDs: 1884348

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A75452
Included Lab Sample IDs: 1884350

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.2	98.9	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A75456
Included Lab Sample IDs: 1884348

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

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A75470
Included Lab Sample IDs: 1884349

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

Reference Method: SM 5310 B-00
Run ID: A75475
Included Lab Sample IDs: 1884349

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.1	95.2	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A75484
Included Lab Sample IDs: 1884352

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	102	100	P/P	60 - 150

Reference Method: EPA 8321B
Run ID: A75487
Included Lab Sample IDs: 1884352

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Glyphosate	92.0	98.4	P/P	70 - 130

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A75490
Included Lab Sample IDs: 1884349

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	97.5	96.5	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A75524

Included Lab Sample IDs: 1884349

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	102	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A75554

Included Lab Sample IDs: 1884349

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A75569

Included Lab Sample IDs: 1884354

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	98.7	95.5	P/P	90 - 110
Cadmium	95.2	94.5	P/P	90 - 110
Chromium	97.8	98.6	P/P	90 - 110
Copper	99.3	96.0	P/P	90 - 110
Lead	98.7	97.8	P/P	90 - 110
Nickel	99.3	96.4	P/P	90 - 110
Silver	96.9	95.0	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A75593

Included Lab Sample IDs: 1884354

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	100	99.8	P/P	90 - 110
Iron	98.9	98.6	P/P	90 - 110
Magnesium	99.3	98.6	P/P	90 - 110
Potassium	99.2	98.3	P/P	90 - 110
Sodium	99.0	98.7	P/P	90 - 110
Zinc	99.5	101	P/P	90 - 110

Reference Method: EPA 8270D

Run ID: A75603

Included Lab Sample IDs: 1884356

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	98.7		P	80 - 120
Alachlor	100		P	80 - 120
Ametryn	100		P	80 - 120
Atrazine	100		P	80 - 120
Atrazine Desethyl	94.6		P	80 - 120
Azinphos Methyl	100		P	80 - 120
Bromacil	112		P	80 - 120
Butylate	101		P	80 - 120
Chlorpyrifos Ethyl	100		P	80 - 120
Chlorpyrifos Methyl	99.3		P	80 - 120
Cyanazine	92.6		P	80 - 120
Demeton	99.2		P	80 - 120

Quality Assurance Report

Calibration Verification

Reference Method: EPA 8270D

Run ID: A75603

Included Lab Sample IDs: 1884356

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Diazinon	101		P	80 - 120
Disulfoton	93.3		P	80 - 120
EPTC	101		P	80 - 120
Ethion	95.6		P	80 - 120
Ethoprop	100		P	80 - 120
Fenamiphos	93.3		P	80 - 120
Fipronil	97.9		P	80 - 120
Fipronil Sulfide	91.1		P	80 - 120
Fipronil Sulfone	99.3		P	80 - 120
Fonofos	97.6		P	80 - 120
Hexazinone	98.4		P	80 - 120
Malathion	99.6		P	80 - 120
Metalaxyl	97.4		P	80 - 120
Metolachlor	103		P	80 - 120
Metribuzin	98.0		P	80 - 120
Mevinphos	108		P	80 - 120
Molinate	100		P	80 - 120
Norflurazon	96.9		P	80 - 120
Parathion Ethyl	96.8		P	80 - 120
Parathion Methyl	97.5		P	80 - 120
Pendimethalin	97.3		P	80 - 120
Phorate	98.1		P	80 - 120
Prometon	101		P	80 - 120
Prometryn	97.1		P	80 - 120
Simazine	107		P	80 - 120
Terbufos	93.9		P	80 - 120
Terbutylazine	98.5		P	80 - 120

Reference Method: EPA 8321B

Run ID: A75616

Included Lab Sample IDs: 1884353

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

Reference Method: SM 2320 B-97

Run ID: A75625

Included Lab Sample IDs: 1884348

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	105	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A75625

Included Lab Sample IDs: 1884348

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	96.6	95.5	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A75672

Included Lab Sample IDs: 1884348

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	101	P/P	90 - 110
Sulfate	99.8	105	P/P	90 - 110

Reference Method: USGS O-2060-01

Run ID: A75682

Included Lab Sample IDs: 1884352

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetaminophen	109	111	P/P	60 - 150
Carbamazepine	120	130	P/P	60 - 150
Diuron	121	114	P/P	60 - 150
Fenuron	114	113	P/P	60 - 150
Fluridone	110	108	P/P	60 - 150
Imidacloprid	94.0	99.6	P/P	60 - 150
Linuron	105	113	P/P	60 - 150
Primidone	108	109	P/P	60 - 150

Reference Method: USGS O-2060-01

Run ID: A75705

Included Lab Sample IDs: 1884352

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	129	123	P/P	50 - 150
Bentazon	101	70.8	P/P	50 - 150
MCPP	119	128	P/P	50 - 150
Triclopyr	106	94.8	P/P	50 - 150

Reference Method: EPA 8270D

Run ID: A75718

Included Lab Sample IDs: 1884355

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	96.8		P	80 - 120
Alpha-BHC	98.6		P	80 - 120
Alpha-Chlordane	98.4		P	80 - 120
Beta-BHC	106		P	80 - 120
Carbophenothion	87.7		P	80 - 120
Chlorothalonil	105		P	80 - 120
Cypermethrin	97.8		P	80 - 120
DDD-p,p'	99.0		P	80 - 120
DDE-p,p'	97.2		P	80 - 120
DDT-p,p'	107		P	80 - 120
Delta-BHC	102		P	80 - 120
Dicofol	103		P	80 - 120
Dieldrin	98.3		P	80 - 120
Endosulfan I	99.5		P	80 - 120
Endosulfan II	92.5		P	80 - 120
Endosulfan Sulfate	106		P	80 - 120
Endrin	97.6		P	80 - 120
Endrin Aldehyde	104		P	80 - 120
Endrin Ketone	108		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D
 Run ID: A75718
 Included Lab Sample IDs: 1884355

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Gamma-BHC	98.5		P	80 - 120
Gamma-Chlordane	98.2		P	80 - 120
Heptachlor	101		P	80 - 120
Heptachlor Epoxide	98.8		P	80 - 120
Methoxychlor	105		P	80 - 120
Mirex	100		P	80 - 120
Permethrin	95.4		P	80 - 120
Trifluralin	98.3		P	80 - 120

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

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity							1.11	
EPA 200.7 Rev. 4.4	Calcium	102		100	99.5				0.503
	Iron	104		104	103	104			1.04
	Magnesium	103		101	98.4				0.507
	Potassium	102		101	103	103			0.382
	Sodium	102		102	101				1.06
	Zinc	99.7		98.8	96.8	98.0			1.24
EPA 200.8 Rev. 5.4	Arsenic	96.9		96.6	98.8	97.2			1.61
	Cadmium	93.7		92.5	96.3	95.2			1.16
	Chromium	96.6		95.1	98.1	96.7			1.34
	Copper	95.4		92.2	92.9	92.5			0.431
	Lead	99.2		97.9	98.3	98.3			0.0289
	Nickel	97.6		93.6	95.4	94.0			1.40
	Silver	98.1		98.1	99.2	98.8			0.429
EPA 300.0 Rev. 2.1	Chloride	101		101	101			0.0733	
	Sulfate	99.4		98.5	99.0			0.775	
EPA 350.1 Rev. 2.0	Ammonia-N	103		101	103				1.98
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	105		101	106				3.60
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	101		102	100				1.49
EPA 365.1 Rev. 2.0	Total-P	105		106	105				0.653
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	106		96.4	95.9				0.483
EPA 8270D	Acetochlor	84.6	90.7	96.6	86.8		6.97		10.7
	Alachlor	84.7	90.3	100	90.5		6.34		10.2
	Aldrin	49.2	42.1	57.0	62.6		15.5		9.34
	Alpha-BHC	70.5	67.8	65.8	70.4		3.91		6.79
	Alpha-Chlordane	76.1	71.1	57.8	64.0		6.84		8.00
	Ametryn	95.9	115	141	124		18.3		13.3
	Atrazine	92.7	93.1	108	92.4		0.361		3.83
	Atrazine Desethyl	61.5	65.8	53.2	55.4		6.75		3.46
	Azinphos Methyl	91.1	106	104	99.2		14.8		4.82
	Beta-BHC	69.4	61.1	70.0	76.6		12.8		8.96
	Bromacil	81.4	77.9	108	85.3		4.40		23.2

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270D	Butylate	54.9	56.5	44.1	38.2	2.94	14.4
	Carbophenothion	86.1	86.1	98.4	110	0.0436	11.5
	Chlorothalonil	64.5	75.3	105	93.5	15.3	11.6
	Chlorpyrifos Ethyl	84.3	83.7	83.4	77.8	0.691	6.97
	Chlorpyrifos Methyl	77.6	81.9	87.1	77.7	5.41	11.4
	Cyanazine	91.8	99.5	106	98.9	8.14	7.00
	Cypermethrin	99.2	98.9	95.5	113	0.285	17.1
	DDD-p,p'	77.1	70.1	78.5	84.3	9.53	7.03
	DDE-p,p'	76.3	71.6	73.4	79.4	6.31	7.88
	DDT-p,p'	79.7	74.7	77.2	80.1	6.43	3.72
	Delta-BHC	108	113	121	133	3.98	9.70
	Demeton	84.6	93.5	116	112	10.0	2.81
	Diazinon	82.4	89.0	102	90.8	7.64	11.5
	Dicofol	73.6	62.2	67.9	74.1	16.8	8.77
	Dieldrin	80.2	71.8	76.9	79.3	11.1	2.98
	Disulfoton	81.1	91.2	88.2	84.1	11.7	4.72
	Endosulfan I	84.3	77.4	82.3	93.8	8.46	13.0
	Endosulfan II	93.6	89.7	92.6	102	4.33	9.65
	Endosulfan Sulfate	92.1	91.1	102	108	1.17	5.88
	Endrin	74.5	72.3	71.4	75.7	3.00	5.83
	Endrin Aldehyde	87.5	83.7	85.9	87.5	4.48	1.80
	Endrin Ketone	93.1	86.9	93.8	102	6.97	8.76
	EPTC	57.9	52.7	47.2	43.3	9.34	8.56
	Ethion	90.0	88.8	86.2	76.3	1.40	12.2
	Ethoprop	74.8	79.3	99.9	92.4	5.83	7.85
	Fenamiphos	101	97.9	85.7	78.8	3.03	8.43
	Fipronil	94.1	96.6	105	93.9	2.68	11.1
	Fipronil Sulfide	89.9	86.2	81.8	75.4	4.28	8.07
	Fipronil Sulfone	89.3	82.4	80.7	68.5	8.01	12.3
	Fonofos	72.7	76.7	90.7	87.0	5.38	4.17
	Gamma-BHC	67.0	62.0	65.8	70.5	7.87	6.97
	Gamma-Chlordane	75.7	70.8	75.4	81.3	6.60	7.54
	Heptachlor	75.1	68.2	70.9	76.6	9.59	7.79
	Heptachlor Epoxide	76.9	72.9	75.8	82.2	5.36	8.10
	Hexazinone	90.8	86.5	91.3	82.0	4.85	10.8
	Malathion	88.7	93.0	96.4	86.0	4.72	11.4
	Metalaxyl	82.2	92.7	91.7	83.0	11.9	9.97
	Methoxychlor	82.2	73.5	77.4	80.9	11.2	4.50
	Metolachlor	90.0	92.6	99.2	89.5	2.76	9.75
	Metribuzin	92.5	95.8	107	101	3.48	5.43
	Mevinphos	72.9	75.2	102	106	3.11	3.24
	Mirex	69.0	62.8	68.4	73.6	9.49	7.27
	Molinate	62.2	59.0	61.4	57.3	5.33	6.92
	Norflurazon	92.5	88.3	84.1	77.0	4.63	8.86
	Parathion Ethyl	87.7	86.3	96.7	86.3	1.70	11.4
	Parathion Methyl	81.2	87.6	102	92.8	7.62	9.73
	Pendimethalin	88.0	88.0	102	91.9	0.0625	10.3
	Permethrin	83.0	77.6	81.2	91.7	6.80	12.2
	Phorate	76.1	84.4	104	101	10.3	2.70
	Prometon	90.2	100	114	99.9	10.5	13.0
	Prometryn	89.6	102	91.2	89.6	12.8	1.77
	Simazine	96.6	94.9	90.8	91.2	1.71	0.406
	Terbufos	71.5	76.8	93.3	86.0	7.16	8.04
	Terbuthylazine	91.4	86.1	95.9	85.6	6.03	11.3

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
EPA 8270D	Trifluralin	84.3	79.2	100	109	6.30	8.56
EPA 8321B	Glyphosate	107		82.4	86.0		4.28
	Pyraclostrobin	112		84.4	90.4		6.86
	Sucralose	69.6		83.0	88.0		2.51
SM 2120 B	Color (true)					1.66	
SM 2320 B-97	Total Alkalinity	104				0.157	
SM 2540 C-97	TDS					7.49	
SM 4500 F-C-97	Fluoride	94.5					0.520
SM 5310 B-00	Organic Carbon	98.6		93.4	92.9		0.404
USGS O-2060-01	2,4-D	91.2		134	127		5.21
	Acetaminophen	86.4		59.6	58.8		1.35
	Bentazon	110					2.90
	Carbamazepine	114		59.6	60.8		1.99
	Diuron	76.8		33.2	39.6		17.6
	Fenuron	97.6		47.6	46.8		1.69
	Fluridone	85.6		32.0	32.4		0.897
	Imidacloprid	88.4		102	111		8.27
	Linuron	132		62.4	78.8		23.2
	MCPP	85.6		131	120		8.92
	Primidone	97.2		90.0	76.0		16.9
	Triclopyr	88.0		137	120		13.4

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1884348
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1884354
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1884354
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1884348
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1884348
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1884349
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1884349
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1884349
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1884349
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1884350
EPA 8270D / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	1884355
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides (ultra trace level) in water matrices by GC/MS/MS	1884356
EPA 8321B / E31780	Glyphosate in water matrices by HPLC/MS/MS	1884352
EPA 8321B / E31780	Pyraclostrobin in water matrices by HPLC/MS/MS	1884353
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	1884352
SM 2120 B / E31780	True Color measured at 450 nm	1884348
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1884348
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1884348
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1884348

Reference Method Descriptions

Method / DoH Cert #	Description	<u>Associated Samples</u>
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1884348
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1884349
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1884352
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1884352

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	03/29/2017			03/29/2017 17:01	Blanca Fach	1884348
EPA 200.7 Rev. 4.4	03/29/2017	04/03/2017	Elliott D. Healy	04/05/2017	Martin Acosta	1884354
EPA 200.8 Rev. 5.4	03/29/2017	04/03/2017	Elliott D. Healy	04/04/2017	Betina Topolski	1884354
EPA 300.0 Rev. 2.1	03/29/2017			04/07/2017	Ping Hua	1884348
EPA 350.1 Rev. 2.0	03/29/2017			03/30/2017	Julie Michelle Frank	1884349
EPA 351.2 Rev. 2.0	03/29/2017	03/31/2017	Adrian Shelby	04/03/2017	Joseph Suarez	1884349
EPA 353.2 Rev. 2.0	03/29/2017			03/31/2017	Beverly Y. Sanders	1884349
EPA 365.1 Rev. 2.0	03/29/2017	04/03/2017	Vijayalakshmi Reddy	04/04/2017	Lipi Saha	1884349
EPA 365.1 Rev. 2.0 dissolved	03/29/2017			03/29/2017 16:23	Anthony C. Onicha	1884350
EPA 8270D	03/29/2017	03/30/2017	Fe-Val Siddell	04/04/2017	Irina Carbone	1884356
	03/29/2017	03/31/2017	Rasheda Ghaffari	04/05/2017	Vandana T. Nagar	1884355
EPA 8321B	03/29/2017	03/30/2017	Mohammad Ghaffari	03/30/2017	Mohammad Ghaffari	1884352
	03/29/2017	03/31/2017	Mohammad Ghaffari	03/31/2017	Mohammad Ghaffari	1884352
	03/29/2017	04/03/2017	Fe-Val Siddell	04/05/2017	Juyoung Kim	1884353
SM 2120 B	03/29/2017			03/29/2017 18:26	Julie Michelle Frank	1884348
SM 2320 B-97	03/29/2017			04/06/2017	Dale L. Simmons	1884348
SM 2540 C-97	03/29/2017			03/31/2017	Yijie Li	1884348
SM 2540 D-97	03/29/2017			03/31/2017	Yijie Li	1884348
SM 4500 F-C-97	03/29/2017			04/06/2017	Dale L. Simmons	1884348
SM 5310 B-00	03/29/2017			03/30/2017	Julie Michelle Frank	1884349
USGS O-2060-01	03/29/2017	03/31/2017	Hoor Shaik	04/08/2017	Juyoung Kim	1884352
	03/29/2017	03/31/2017	Hoor Shaik	04/10/2017	Juyoung Kim	1884352