

Chemical Analysis Report

NE-DIST-2017-09-27-02

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

Event Description: **LSJR SOUTHSIDE**
Request ID: **RQ-2017-09-25-17**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
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8800 Baymeadows Way W
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Certified by: Liang Lin, Environmental Administrator

Date Certified: 25-OCT-2017 10:14

A handwritten signature in black ink, appearing to read "Liang Lin", on a light-colored 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: Goodby's Creek @ San Clerc Rd.

Collection Date/Time: 09/26/2017 09:30

Field ID: G2NE0962 09262017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1931878	EPA 180.1 Rev. 2.0	Turbidity	5.6		NTU	P332343	
	EPA 300.0 Rev. 2.1	Chloride	22		mg Cl/L	P332364	
		Sulfate	12		mg SO4/L	P332367	
	SM 2120 B	Color (true)	89	A	PCU	P332372	
	SM 2320 B-97	Total Alkalinity	107		mg CaCO3/L	P332632	
	SM 2540 C-97	TDS	193		mg/L	P332921	
	SM 2540 D-97	TSS	2	I	mg/L	P332914	
	SM 4500 F-C-97	Fluoride	0.11		mg F/L	P332636	RPD
1931879	EPA 350.1 Rev. 2.0	Ammonia-N	0.083		mg N/L	P332758	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.55		mg N/L	P332526	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.093		mg N/L	P332612	
	EPA 365.1 Rev. 2.0	Total-P	0.13		mg P/L	P332461	
	SM 5310 B-00	Organic Carbon	9.4		mg C/L	P332614	
1931880	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.055		mg P/L	P332329	
1931891	EPA 200.7 Rev. 4.4	Calcium	41.4		mg/L	P332421	
		Iron	1.99E+03		ug/L	P332421	
		Magnesium	5.14		mg/L	P332421	
		Potassium	2.3		mg/L	P332421	
		Sodium	15.0		mg/L	P332421	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P332421	
		Arsenic	5.21		ug/L	P332421	
		Cadmium	0.020	U	ug/L	P332421	
		Chromium	0.40	U	ug/L	P332421	
		Copper	0.44	I	ug/L	P332421	
		Lead	0.15	I	ug/L	P332421	
		Nickel	0.34	I	ug/L	P332421	
		Silver	0.010	U	ug/L	P332421	

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: Goodby's Creek @ San Clerc Rd.

Collection Date/Time: 09/26/2017 09:30

Field ID: G2NE0962 09262017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1931882	EPA 8321B	Glyphosate**	0.50	U	ug/L	P332309	
		Pyraclostrobin**	0.0020	U	ug/L	P332315	
		Sucralose**	0.042		ug/L	P332314	
	USGS O-2060-01	2,4-D	0.0049	I	ug/L	P332316	
		Diuron	0.037		ug/L	P332316	
		Fenuron	0.0092	I	ug/L	P332316	
		Imidacloprid	0.027		ug/L	P332316	
		Bentazon	0.016		ug/L	P332316	MS
		Linuron	0.0040	U	ug/L	P332316	
		Acetaminophen**	0.0080	U	ug/L	P332316	

Field ID: G2NE0962 09262017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1931882	USGS O-2060-01	MCP	0.0020	U	ug/L	P332316	
		Carbamazepine**	4.0E-04	U	ug/L	P332316	
		Triclopyr**	0.0040	U	ug/L	P332316	
		Primidone**	0.0040	U	ug/L	P332316	
		Fluridone**	0.0093		ug/L	P332316	
1931883	EPA 8270D	Aldrin	4.1	U	ng/L	P332509	
		Alpha-BHC	2.1	U	ng/L	P332509	
		Beta-BHC	4.1	U	ng/L	P332509	
		Delta-BHC	4.1	U	ng/L	P332509	
		Gamma-BHC	4.1	U	ng/L	P332509	
		Carbophenothion	4.1	U	ng/L	P332509	
		Chlorothalonil	2.1	U	ng/L	P332509	RPD
		Cypermethrin	21	U	ng/L	P332509	
		DDD-p,p'	3.1	U	ng/L	P332509	
		DDE-p,p'	3.1	U	ng/L	P332509	
		DDT-p,p'	3.1	U	ng/L	P332509	
		Dieldrin	4.1	U	ng/L	P332509	
		Endosulfan I	4.1	U	ng/L	P332509	
		Endosulfan II	4.1	U	ng/L	P332509	
		Endosulfan Sulfate	2.1	U	ng/L	P332509	
		Endrin	2.1	U	ng/L	P332509	
		Endrin Aldehyde	2.1	U	ng/L	P332509	
		Heptachlor	1.5	U	ng/L	P332509	
		Heptachlor Epoxide	2.1	U	ng/L	P332509	
		Methoxychlor	4.1	U	ng/L	P332509	
		Mirex	2.1	U	ng/L	P332509	
		Permethrin	10	U	ng/L	P332509	
		Trifluralin	1.0	U	ng/L	P332509	
		Alpha-Chlordane	1.0	U	ng/L	P332509	
		Gamma-Chlordane	1.0	U	ng/L	P332509	
		Endrin Ketone	2.1	U	ng/L	P332509	
		Dicofol	31	UJ	ng/L	P332509	CCV
	EPA 8276	Chlordane**	2.6	U	ng/L	P332509	
		Toxaphene**	13	U	ng/L	P332509	
1931884	EPA 8270D	Alachlor	0.24	U	ng/L	P332332	
		Ametryn	0.31	U	ng/L	P332332	
		Atrazine	56		ng/L	P332332	
		Atrazine Desethyl	4.0	I	ng/L	P332332	
		Azinphos Methyl	2.2	U	ng/L	P332332	
		Bromacil	33		ng/L	P332332	
		Butylate	0.38	U	ng/L	P332332	RPD
		Chlorpyrifos Ethyl	0.24	U	ng/L	P332332	
		Chlorpyrifos Methyl	0.096	U	ng/L	P332332	
		Demeton	1.9	U	ng/L	P332332	
		Diazinon	0.12	U	ng/L	P332332	

Field ID: G2NE0962 09262017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1931884	EPA 8270D	Disulfoton	0.48	U	ng/L	P332332	
		EPTC	1.2	U	ng/L	P332332	RPD
		Ethion	0.14	U	ng/L	P332332	
		Ethoprop	0.096	U	ng/L	P332332	
		Fenamiphos	0.24	U	ng/L	P332332	
		Fipronil	1.9		ng/L	P332332	
		Fipronil Sulfide	1.5		ng/L	P332332	
		Fipronil Sulfone	2.9		ng/L	P332332	
		Hexazinone	90		ng/L	P332332	
		Malathion	0.34	U	ng/L	P332332	
		Metribuzin	0.19	UJ	ng/L	P332332	LCS
		Mevinphos	0.48	U	ng/L	P332332	
		Molinate	0.29	U	ng/L	P332332	
		Norflurazon	0.48	U	ng/L	P332332	
		Pendimethalin	0.96	U	ng/L	P332332	
		Phorate	0.24	U	ng/L	P332332	
		Prometon	6.3		ng/L	P332332	
		Prometryn	0.19	U	ng/L	P332332	
		Simazine	0.48	U	ng/L	P332332	
		Terbufos	0.096	U	ng/L	P332332	
		Terbuthylazine	0.41	U	ng/L	P332332	
		Fonofos	0.19	U	ng/L	P332332	
		Metalaxyl	0.19	U	ng/L	P332332	
		Metolachlor	0.27	I	ng/L	P332332	
		Acetochlor	0.24	U	ng/L	P332332	
		Cyanazine	0.48	U	ng/L	P332332	
		Parathion Ethyl	0.24	U	ng/L	P332332	
		Parathion Methyl	0.24	U	ng/L	P332332	

Ref. Method and Comment:

USGS O-2060-01: MS accuracy for imidacloprid 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.

EPA 8276: The second LFB was lost in preparation.

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P332343

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P332421

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P332421

Component	Result	Code	Units
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: P332421

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: P332364

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332367

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P332758

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P332526

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P332612

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P332461

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: P332329

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

Reference Method: EPA 8270D
Batch ID: P332332

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	2.0	U	ng/L
Diazinon	0.12	U	ng/L
Disulfoton	0.50	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	1.0	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: P332509

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: P332509

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'	3.0	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 8276
Batch ID: P332509

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

Reference Method: EPA 8321B
Batch ID: P332309

Component	Result	Code	Units
Glyphosate	0.50	U	ug/L

Reference Method: EPA 8321B
Batch ID: P332314

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P332315

Component	Result	Code	Units
Pyraclostrobin	0.0020	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: SM 2120 B
Batch ID: P332372

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P332632

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

Reference Method: SM 2540 C-97
Batch ID: P332921

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P332914

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P332636

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P332614

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

Reference Method: USGS O-2060-01
Batch ID: P332316

Component	Result	Code	Units
2,4-D	0.0020	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	0.0080	U	ug/L
Fluridone	4.0E-04	U	ug/L
Imidacloprid	8.0E-04	U	ug/L
Linuron	0.0040	U	ug/L
MCPP	0.0020	U	ug/L
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: P332421

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	107		P	85 - 115
Iron	105		P	85 - 115
Magnesium	107		P	85 - 115
Potassium	100		P	85 - 115
Sodium	105		P	85 - 115
Zinc	99.6		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P332421

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	101		P	85 - 115
Cadmium	98.6		P	85 - 115
Chromium	94.7		P	85 - 115
Copper	96.5		P	85 - 115
Lead	95.9		P	85 - 115
Nickel	99.4		P	85 - 115
Silver	95.8		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332364

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332367

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P332758

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: P332526

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P332612

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	106		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P332461

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P332329

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

Reference Method: EPA 8270D
 Batch ID: P332332

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	91.6	83.8	P/P	78 - 118
Alachlor	91.2	82.2	P/P	77 - 119
Ametryn	89.5	75.2	P/P	61 - 136
Atrazine	98.0	94.3	P/P	73 - 120
Atrazine Desethyl	98.7	100	P/P	16 - 122
Azinphos Methyl	116	116	P/P	69 - 186
Bromacil	90.6	87.2	P/P	40 - 125
Butylate	50.3	52.3	P/P	32 - 87.0
Chlorpyrifos Ethyl	82.2	83.9	P/P	53 - 110
Chlorpyrifos Methyl	85.8	95.0	P/P	31 - 119
Cyanazine	176	172	P/P	36 - 224
Demeton	74.3	93.3	P/P	39 - 122
Diazinon	111	100	P/P	75 - 119
Disulfoton	86.5	109	P/P	42 - 139
EPTC	41.3	41.7	P/P	33 - 96.0
Ethion	80.3	88.5	P/P	63 - 127
Ethoprop	86.1	86.3	P/P	65 - 107
Fenamiphos	78.8	90.9	P/P	64 - 137
Fipronil	93.9	92.2	P/P	60 - 126
Fipronil Sulfide	76.2	82.5	P/P	58 - 124
Fipronil Sulfone	67.9	76.8	P/P	57 - 126
Fonofos	83.1	94.7	P/P	65 - 111
Hexazinone	89.5	86.6	P/P	46 - 151
Malathion	84.2	88.4	P/P	68 - 132
Metaxyl	94.1	88.0	P/P	51 - 132
Metolachlor	87.2	84.4	P/P	78 - 119
Metribuzin	200	171	F/F	58 - 148
Mevinphos	69.9	81.1	P/P	34 - 128
Molinate	55.8	48.1	P/P	44 - 101
Norflurazon	92.1	91.4	P/P	63 - 129
Parathion Ethyl	92.0	90.2	P/P	80 - 109
Parathion Methyl	98.1	94.8	P/P	74 - 125
Pendimethalin	91.2	82.6	P/P	48 - 134
Phorate	82.8	104	P/P	52 - 119
Prometon	89.4	84.9	P/P	69 - 124
Prometryn	80.3	83.3	P/P	66 - 124
Simazine	98.8	93.6	P/P	61 - 134
Terbufos	87.8	100	P/P	58 - 115
Terbutylazine	92.5	91.1	P/P	77 - 113

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P332509

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	37.9	46.9	P/P	26 - 88.0
Alpha-BHC	76.2	76.6	P/P	63 - 114
Alpha-Chlordane	75.8	74.0	P/P	56 - 117
Beta-BHC	91.7	87.8	P/P	57 - 138
Carbophenothion	73.9	81.8	P/P	36 - 148
Chlorothalonil	59.9	59.2	P/P	26 - 173
Cypermethrin	65.4	63.8	P/P	42 - 159
DDD-p,p'	88.7	83.8	P/P	62 - 126
DDE-p,p'	80.7	78.3	P/P	53 - 115
DDT-p,p'	79.8	78.4	P/P	54 - 117
Delta-BHC	87.9	84.4	P/P	68 - 158
Dicofol	45.7	41.5	P/P	25 - 114
Dieldrin	81.4	78.7	P/P	59 - 126
Endosulfan I	79.4	76.8	P/P	62 - 138
Endosulfan II	86.9	78.9	P/P	61 - 150
Endosulfan Sulfate	77.1	79.8	P/P	63 - 132
Endrin	81.7	81.2	P/P	49 - 148
Endrin Aldehyde	81.9	80.4	P/P	50 - 144
Endrin Ketone	78.9	80.9	P/P	66 - 122
Gamma-BHC	88.4	88.3	P/P	60 - 137
Gamma-Chlordane	74.9	73.3	P/P	54 - 113
Heptachlor	65.7	67.8	P/P	43 - 104
Heptachlor Epoxide	78.1	76.3	P/P	64 - 118
Methoxychlor	85.5	85.7	P/P	63 - 129
Mirex	68.7	70.6	P/P	39 - 93.0
Permethrin	74.6	75.9	P/P	51 - 123
Trifluralin	131	136	P/P	35 - 187

Reference Method: EPA 8276
Batch ID: P332509

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	88.6		P	48 - 121
Toxaphene	95.9		P	43 - 135

Reference Method: EPA 8321B
Batch ID: P332309

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Glyphosate	117		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P332314

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	92.6		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P332315

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Pyraclostrobin	85.0		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-97
Batch ID: P332632

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P332636

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.2		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P332614

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.8		P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P332316

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	74.3		P	40 - 150
Acetaminophen	145		P	30 - 150
Bentazon	40.2		P	40 - 150
Carbamazepine	117		P	40 - 150
Diuron	103		P	40 - 150
Fenuron	112		P	40 - 150
Fluridone	110		P	40 - 150
Imidacloprid	102		P	40 - 160
Linuron	107		P	40 - 150
MCP	75.7		P	40 - 150
Primidone	109		P	40 - 150
Triclopyr	72.5		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P332421

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932064	Calcium	106		P	80 - 120
1932064	Iron	104		P	80 - 120
1932064	Magnesium	107		P	80 - 120
1932064	Potassium	99.7		P	80 - 120
1932064	Sodium	104		P	80 - 120
1932064	Zinc	95.2		P	80 - 120
1932279	Calcium	108	105	P/P	80 - 120
1932279	Iron	107	106	P/P	80 - 120
1932279	Magnesium	108	107	P/P	80 - 120
1932279	Potassium	104	103	P/P	80 - 120
1932279	Sodium	103	103	P/P	80 - 120
1932279	Zinc	98.8	99.3	P/P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P332421

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932064	Arsenic	99.7		P	80 - 120
1932064	Cadmium	100		P	80 - 120
1932064	Chromium	96.8		P	80 - 120
1932064	Copper	96.5		P	80 - 120
1932064	Lead	96.7		P	80 - 120
1932064	Nickel	97.1		P	80 - 120
1932064	Silver	95.6		P	80 - 120
1932279	Arsenic	101	99.9	P/P	80 - 120
1932279	Cadmium	102	101	P/P	80 - 120
1932279	Chromium	101	100	P/P	80 - 120
1932279	Copper	97.2	96.7	P/P	80 - 120
1932279	Lead	98.6	98.1	P/P	80 - 120
1932279	Nickel	98.4	98.3	P/P	80 - 120
1932279	Silver	96.6	96.0	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332364

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1931910	Chloride	105		P	90 - 110
1932028	Chloride	99.0		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332367

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1931910	Sulfate	104		P	90 - 110
1932028	Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P332758

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1931807	Ammonia-N	103	99.9	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P332526

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1931879	Kjeldahl Nitrogen	106	106	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P332612

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1931879	NO2NO3-N	104	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P332461

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1931879	Total-P	96.7	96.0	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P332329

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1931880	O-Phosphate-P	96.1	97.3	P/P	90 - 110

Reference Method: EPA 8270D
 Batch ID: P332332

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1931666	Acetochlor	79.8	86.2	P/P	74 - 123
1931666	Alachlor	78.1	74.6	P/P	73 - 124
1931666	Ametryn	78.8	81.7	P/P	56 - 149
1931666	Atrazine	86.1	87.0	P/P	73 - 124
1931666	Atrazine Desethyl	84.4	88.9	P/P	12 - 103
1931666	Azinphos Methyl	86.0	88.5	P/P	60 - 202
1931666	Bromacil	94.6	71.8	P/P	42 - 133
1931666	Butylate	27.0	19.6	P/P	10 - 85.0
1931666	Chlorpyrifos Ethyl	81.6	71.5	P/P	53 - 113
1931666	Chlorpyrifos Methyl	87.2	83.9	P/P	40 - 115
1931666	Cyanazine	119	105	P/P	22 - 210
1931666	Demeton	74.4	58.4	P/P	17 - 149
1931666	Diazinon	93.2	96.4	P/P	72 - 124
1931666	Disulfoton	101	88.7	P/P	43 - 139
1931666	EPTC	23.6	13.9	P/P	10 - 86.0
1931666	Ethion	93.2	84.9	P/P	65 - 131
1931666	Ethoprop	83.3	79.0	P/P	59 - 110
1931666	Fenamiphos	110	93.7	P/P	57 - 138
1931666	Fipronil	83.4	74.6	P/P	40 - 130
1931666	Fipronil Sulfide	82.1	70.1	P/P	36 - 128
1931666	Fipronil Sulfone	62.8	51.2	P/P	16 - 145
1931666	Fonofos	87.8	76.1	P/P	60 - 112
1931666	Hexazinone	83.9	83.8	P/P	69 - 142
1931666	Malathion	92.0	78.8	P/P	68 - 132
1931666	Metalaxyl	80.0	86.8	P/P	66 - 118
1931666	Metolachlor	84.3	79.6	P/P	71 - 124
1931666	Metribuzin	124	119	P/P	61 - 140
1931666	Mevinphos	84.1	76.1	P/P	38 - 130
1931666	Molinate	38.7	29.9	P/P	23 - 99.0
1931666	Norflurazon	81.8	74.4	P/P	39 - 139
1931666	Parathion Ethyl	83.1	82.7	P/P	75 - 111
1931666	Parathion Methyl	87.0	89.9	P/P	64 - 130
1931666	Pendimethalin	76.2	78.1	P/P	26 - 173
1931666	Phorate	80.8	71.7	P/P	43 - 127
1931666	Prometon	80.7	82.2	P/P	50 - 144
1931666	Prometryn	85.2	87.5	P/P	69 - 126
1931666	Simazine	93.5	103	P/P	51 - 152
1931666	Terbufos	91.8	84.2	P/P	54 - 125
1931666	Terbutylazine	84.9	86.8	P/P	76 - 113

Reference Method: EPA 8270D
 Batch ID: P332509

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932417	Aldrin	45.1	46.9	P/P	22 - 97.0
1932417	Alpha-BHC	63.8	76.4	P/P	43 - 132

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P332509

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932417	Alpha-Chlordane	73.3	74.5	P/P	36 - 126
1932417	Beta-BHC	83.4	85.7	P/P	41 - 150
1932417	Carbophenothion	77.8	82.4	P/P	13 - 196
1932417	Chlorothalonil	77.5	57.3	P/P	10 - 266
1932417	Cypermethrin	75.1	70.7	P/P	37 - 161
1932417	DDD-p,p'	84.5	83.7	P/P	44 - 131
1932417	DDE-p,p'	76.1	79.5	P/P	32 - 127
1932417	DDT-p,p'	78.4	77.7	P/P	45 - 116
1932417	Delta-BHC	93.3	88.6	P/P	50 - 201
1932417	Dicofol	41.4	42.0	P/P	10 - 100
1932417	Dieldrin	75.4	78.7	P/P	39 - 142
1932417	Endosulfan I	75.0	77.3	P/P	51 - 139
1932417	Endosulfan II	75.6	73.9	P/P	49 - 155
1932417	Endosulfan Sulfate	78.1	76.5	P/P	54 - 136
1932417	Endrin	78.4	80.1	P/P	38 - 141
1932417	Endrin Aldehyde	74.4	78.4	P/P	14 - 152
1932417	Endrin Ketone	77.5	78.3	P/P	60 - 128
1932417	Gamma-BHC	76.0	84.7	P/P	48 - 157
1932417	Gamma-Chlordane	72.9	73.8	P/P	35 - 123
1932417	Heptachlor	67.5	70.1	P/P	25 - 112
1932417	Heptachlor Epoxide	74.9	75.6	P/P	48 - 125
1932417	Methoxychlor	85.4	88.7	P/P	52 - 127
1932417	Mirex	70.1	74.1	P/P	25 - 108
1932417	Permethrin	78.8	88.0	P/P	46 - 133
1932417	Trifluralin	130	133	P/P	29 - 254

Reference Method: EPA 8276
Batch ID: P332509

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1931883	Chlordane	84.0	91.7	P/P	44 - 134
1931883	Toxaphene	94.4	101	P/P	36 - 147

Reference Method: EPA 8321B
Batch ID: P332309

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1931647	Glyphosate	100	104	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P332314

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932057	Sucralose	42.3	42.5	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P332315

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932874	Pyraclostrobin	98.6	93.5	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P332636

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1931805	Fluoride	96.0	100	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P332614

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1931818	Organic Carbon	95.2	95.4	P/P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P332316

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1931788	2,4-D	64.1	66.9	P/P	40 - 150
1931788	Acetaminophen	82.5	90.5	P/P	30 - 150
1931788	Bentazon	22.3	29.7	F/F	40 - 150
1931788	Carbamazepine	82.1	84.7	P/P	40 - 150
1931788	Diuron	57.4	62.9	P/P	40 - 150
1931788	Fenuron	82.6	83.1	P/P	40 - 150
1931788	Fluridone	66.1	58.8	P/P	40 - 150
1931788	Linuron	80.7	85.4	P/P	40 - 150
1931788	MCP	50.0	51.8	P/P	40 - 150
1931788	Primidone	91.9	91.9	P/P	40 - 150
1931788	Triclopyr	50.6	52.6	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P332343

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1931817	Turbidity	7.64	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P332421

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932279	Calcium	1.50	Spike	P	0 - 20
1932279	Iron	0.878	Spike	P	0 - 20
1932279	Magnesium	0.497	Spike	P	0 - 20
1932279	Potassium	0.517	Spike	P	0 - 20
1932279	Sodium	0.408	Spike	P	0 - 20
1932279	Zinc	0.510	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P332421

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

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P332421

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932279	Arsenic	0.575	Spike	P	0 - 20
1932279	Cadmium	0.339	Spike	P	0 - 20
1932279	Chromium	0.230	Spike	P	0 - 20
1932279	Copper	0.535	Spike	P	0 - 20
1932279	Lead	0.523	Spike	P	0 - 20
1932279	Nickel	0.130	Spike	P	0 - 20
1932279	Silver	0.592	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332364

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1931910	Chloride	1.87	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332367

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1931910	Sulfate	7.60	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P332758

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1931807	Ammonia-N	3.05	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P332526

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1931879	Kjeldahl Nitrogen	0.0329	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P332612

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1931879	NO2NO3-N	0.332	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P332461

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1931879	Total-P	0.524	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P332329

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1931880	O-Phosphate-P	0.790	Spike	P	0 - 20

Reference Method: EPA 8270D
Batch ID: P332332

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1931666	Acetochlor	7.70	Spike	P	0 - 30
1931666	Alachlor	4.62	Spike	P	0 - 30
1931666	Ametryn	3.59	Spike	P	0 - 30
1931666	Atrazine	0.763	Spike	P	0 - 30
1931666	Atrazine Desethyl	5.18	Spike	P	0 - 30
1931666	Azinphos Methyl	2.88	Spike	P	0 - 30
1931666	Bromacil	27.4	Spike	P	0 - 30
1931666	Butylate	31.8	Spike	F	0 - 30
1931666	Chlorpyrifos Ethyl	13.2	Spike	P	0 - 30
1931666	Chlorpyrifos Methyl	3.86	Spike	P	0 - 30
1931666	Cyanazine	12.4	Spike	P	0 - 30
1931666	Demeton	24.0	Spike	P	0 - 30
1931666	Diazinon	3.30	Spike	P	0 - 30
1931666	Disulfoton	12.8	Spike	P	0 - 30
1931666	EPTC	52.1	Spike	F	0 - 30
1931666	Ethion	9.32	Spike	P	0 - 30
1931666	Ethoprop	5.40	Spike	P	0 - 30
1931666	Fenamiphos	16.1	Spike	P	0 - 30
1931666	Fipronil	11.1	Spike	P	0 - 30
1931666	Fipronil Sulfide	15.8	Spike	P	0 - 30
1931666	Fipronil Sulfone	20.2	Spike	P	0 - 30
1931666	Fonofos	14.3	Spike	P	0 - 30
1931666	Hexazinone	0.111	Spike	P	0 - 30
1931666	Malathion	15.5	Spike	P	0 - 30
1931666	Metalaxyl	8.15	Spike	P	0 - 30
1931666	Metolachlor	5.16	Spike	P	0 - 30
1931666	Metribuzin	3.82	Spike	P	0 - 30
1931666	Mevinphos	10.0	Spike	P	0 - 30
1931666	Molinate	25.7	Spike	P	0 - 30
1931666	Norflurazon	9.44	Spike	P	0 - 30
1931666	Parathion Ethyl	0.482	Spike	P	0 - 30
1931666	Parathion Methyl	3.28	Spike	P	0 - 30
1931666	Pendimethalin	2.47	Spike	P	0 - 30
1931666	Phorate	11.9	Spike	P	0 - 30
1931666	Prometon	1.86	Spike	P	0 - 30
1931666	Prometryn	2.63	Spike	P	0 - 30
1931666	Simazine	9.41	Spike	P	0 - 30
1931666	Terbufos	8.62	Spike	P	0 - 30
1931666	Terbutylazine	2.22	Spike	P	0 - 30
LFB	Acetochlor	8.94	LCS	P	0 - 30
LFB	Alachlor	10.5	LCS	P	0 - 30
LFB	Ametryn	17.4	LCS	P	0 - 30
LFB	Atrazine	3.85	LCS	P	0 - 30
LFB	Atrazine Desethyl	1.41	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P332332

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Azinphos Methyl	0.265	LCS	P	0 - 30
LFB	Bromacil	3.75	LCS	P	0 - 30
LFB	Butylate	4.00	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	2.05	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	10.2	LCS	P	0 - 30
LFB	Cyanazine	2.69	LCS	P	0 - 30
LFB	Demeton	22.6	LCS	P	0 - 30
LFB	Diazinon	10.8	LCS	P	0 - 30
LFB	Disulfoton	23.4	LCS	P	0 - 30
LFB	EPTC	1.14	LCS	P	0 - 30
LFB	Ethion	9.70	LCS	P	0 - 30
LFB	Ethoprop	0.235	LCS	P	0 - 30
LFB	Fenamiphos	14.2	LCS	P	0 - 30
LFB	Fipronil	1.84	LCS	P	0 - 30
LFB	Fipronil Sulfide	7.96	LCS	P	0 - 30
LFB	Fipronil Sulfone	12.3	LCS	P	0 - 30
LFB	Fonofos	13.0	LCS	P	0 - 30
LFB	Hexazinone	3.34	LCS	P	0 - 30
LFB	Malathion	4.93	LCS	P	0 - 30
LFB	Metalaxyl	6.79	LCS	P	0 - 30
LFB	Metolachlor	3.23	LCS	P	0 - 30
LFB	Metribuzin	16.0	LCS	P	0 - 30
LFB	Mevinphos	14.8	LCS	P	0 - 30
LFB	Molinate	14.9	LCS	P	0 - 30
LFB	Norflurazon	0.703	LCS	P	0 - 30
LFB	Parathion Ethyl	2.00	LCS	P	0 - 30
LFB	Parathion Methyl	3.42	LCS	P	0 - 30
LFB	Pendimethalin	9.88	LCS	P	0 - 30
LFB	Phorate	22.5	LCS	P	0 - 30
LFB	Prometon	5.15	LCS	P	0 - 30
LFB	Prometryn	3.60	LCS	P	0 - 30
LFB	Simazine	5.36	LCS	P	0 - 30
LFB	Terbufos	13.4	LCS	P	0 - 30
LFB	Terbutylazine	1.49	LCS	P	0 - 30

Reference Method: EPA 8270D
Batch ID: P332509

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932417	Aldrin	3.97	Spike	P	0 - 30
1932417	Alpha-BHC	18.0	Spike	P	0 - 30
1932417	Alpha-Chlordane	1.72	Spike	P	0 - 30
1932417	Beta-BHC	2.71	Spike	P	0 - 30
1932417	Carbophenothion	5.77	Spike	P	0 - 30
1932417	Chlorothalonil	30.1	Spike	F	0 - 30
1932417	Cypermethrin	5.99	Spike	P	0 - 30
1932417	DDD-p,p'	0.955	Spike	P	0 - 30
1932417	DDE-p,p'	4.38	Spike	P	0 - 30
1932417	DDT-p,p'	0.918	Spike	P	0 - 30
1932417	Delta-BHC	5.24	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P332509

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932417	Dicofol	1.54	Spike	P	0 - 30
1932417	Dieldrin	4.21	Spike	P	0 - 30
1932417	Endosulfan I	3.04	Spike	P	0 - 30
1932417	Endosulfan II	2.26	Spike	P	0 - 30
1932417	Endosulfan Sulfate	2.10	Spike	P	0 - 30
1932417	Endrin	2.07	Spike	P	0 - 30
1932417	Endrin Aldehyde	5.21	Spike	P	0 - 30
1932417	Endrin Ketone	0.950	Spike	P	0 - 30
1932417	Gamma-BHC	10.8	Spike	P	0 - 30
1932417	Gamma-Chlordane	1.33	Spike	P	0 - 30
1932417	Heptachlor	3.76	Spike	P	0 - 30
1932417	Heptachlor Epoxide	0.990	Spike	P	0 - 30
1932417	Methoxychlor	3.81	Spike	P	0 - 30
1932417	Mirex	5.52	Spike	P	0 - 30
1932417	Permethrin	11.0	Spike	P	0 - 30
1932417	Trifluralin	2.37	Spike	P	0 - 30
LFB	Aldrin	21.3	LCS	P	0 - 30
LFB	Alpha-BHC	0.567	LCS	P	0 - 30
LFB	Alpha-Chlordane	2.43	LCS	P	0 - 30
LFB	Beta-BHC	4.41	LCS	P	0 - 30
LFB	Carbophenothion	10.1	LCS	P	0 - 30
LFB	Chlorothalonil	1.21	LCS	P	0 - 30
LFB	Cypermethrin	2.55	LCS	P	0 - 30
LFB	DDD-p,p'	5.61	LCS	P	0 - 30
LFB	DDE-p,p'	3.08	LCS	P	0 - 30
LFB	DDT-p,p'	1.75	LCS	P	0 - 30
LFB	Delta-BHC	4.11	LCS	P	0 - 30
LFB	Dicofol	9.55	LCS	P	0 - 30
LFB	Dieldrin	3.38	LCS	P	0 - 30
LFB	Endosulfan I	3.34	LCS	P	0 - 30
LFB	Endosulfan II	9.66	LCS	P	0 - 30
LFB	Endosulfan Sulfate	3.39	LCS	P	0 - 30
LFB	Endrin	0.659	LCS	P	0 - 30
LFB	Endrin Aldehyde	1.94	LCS	P	0 - 30
LFB	Endrin Ketone	2.46	LCS	P	0 - 30
LFB	Gamma-BHC	0.119	LCS	P	0 - 30
LFB	Gamma-Chlordane	2.21	LCS	P	0 - 30
LFB	Heptachlor	3.03	LCS	P	0 - 30
LFB	Heptachlor Epoxide	2.41	LCS	P	0 - 30
LFB	Methoxychlor	0.281	LCS	P	0 - 30
LFB	Mirex	2.72	LCS	P	0 - 30
LFB	Permethrin	1.69	LCS	P	0 - 30
LFB	Trifluralin	3.40	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P332509

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1931883	Chlordane	8.71	Spike	P	0 - 30
1931883	Toxaphene	7.23	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P332309

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1931647	Glyphosate	3.10	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P332314

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932057	Sucralose	0.283	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P332315

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932874	Pyraclostrobin	5.37	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P332372

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1931878	Color (true)	0.417	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P332632

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1931805	Total Alkalinity	0.258	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P332921

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1931805	TDS	5.00	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P332636

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1931805	Fluoride	4.04	Spike	F	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P332614

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1931818	Organic Carbon	0.118	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: USGS O-2060-01
Batch ID: P332316

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1931788	2,4-D	3.28	Spike	P	0 - 30
1931788	Acetaminophen	9.20	Spike	P	0 - 30
1931788	Bentazon	11.2	Spike	P	0 - 30
1931788	Carbamazepine	2.99	Spike	P	0 - 30
1931788	Diuron	6.74	Spike	P	0 - 30
1931788	Fenuron	0.652	Spike	P	0 - 30
1931788	Fluridone	11.1	Spike	P	0 - 30
1931788	Imidacloprid	0.905	Spike	P	0 - 30
1931788	Linuron	5.66	Spike	P	0 - 30
1931788	MCP	3.10	Spike	P	0 - 30
1931788	Primidone	0.0440	Spike	P	0 - 30
1931788	Triclopyr	3.91	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: 1931882
Field Sample ID: G2NE0962 09262017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	83.5	P	30 - 160
EPA 8321B	Acetaminophen-d4	83.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	72.3	P	30 - 160
EPA 8321B	Carbamazepine-d10	72.3	P	30 - 160
EPA 8321B	Diuron-d6	71.7	P	30 - 160
EPA 8321B	Diuron-d6	52.9	P	30 - 160
EPA 8321B	Diuron-d6	71.7	P	30 - 160
EPA 8321B	Diuron-d6	52.9	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	95.4	P	40 - 160
EPA 8321B	Primidone-d5	88.6	P	30 - 160
EPA 8321B	Primidone-d5	88.6	P	30 - 160
EPA 8321B	Sucralose-d6	76.2	P	40 - 160
EPA 8321B	Sucralose-d6	76.2	P	40 - 160
USGS O-2060-01	2,4-D-d3	59.4	P	40 - 160
USGS O-2060-01	Acetaminophen-d4	83.5	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	72.3	P	30 - 160
USGS O-2060-01	Diuron-d6	71.7	P	30 - 160
USGS O-2060-01	Diuron-d6	52.9	P	30 - 160
USGS O-2060-01	Primidone-d5	88.6	P	30 - 160
USGS O-2060-01	Sucralose-d6	76.2	P	40 - 160

Lab Sample ID: 1931883
Field Sample ID: G2NE0962 09262017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	73.4	P	39 - 118
EPA 8270D	Tetrachloro-m-xylene	41.8	P	32 - 103

Quality Assurance Report Surrogates

Lab Sample ID: 1931883
Field Sample ID: G2NE0962 09262017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8276	Decachlorobiphenyl	70.0	P	31 - 100
EPA 8276	Decachlorobiphenyl	69.8	P	31 - 100

Lab Sample ID: 1931884
Field Sample ID: G2NE0962 09262017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	66.9	P	53 - 135
EPA 8270D	Simazine-d10	91.2	P	71 - 126

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A79194
Included Lab Sample IDs: 1931880

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.4	99.6	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A79197
Included Lab Sample IDs: 1931878

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

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A79203
Included Lab Sample IDs: 1931878

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	97.3	94.3	P/P	90 - 110
Sulfate	95.8	93.8	P/P	90 - 110

Reference Method: SM 2120 B
Run ID: A79205
Included Lab Sample IDs: 1931878

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	103	103	P/P	90 - 115

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A79258
Included Lab Sample IDs: 1931891

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	102	101	P/P	90 - 110
Cadmium	98.4	100	P/P	90 - 110
Chromium	97.6	101	P/P	90 - 110
Copper	101	98.7	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A79258

Included Lab Sample IDs: 1931891

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Lead	96.2	99.1	P/P	90 - 110
Nickel	101	99.0	P/P	90 - 110
Silver	94.9	95.4	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A79259

Included Lab Sample IDs: 1931891

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	101	101	P/P	90 - 110
Iron	98.4	98.8	P/P	90 - 110
Magnesium	99.2	99.8	P/P	90 - 110
Potassium	96.4	97.2	P/P	90 - 110
Sodium	98.7	98.5	P/P	90 - 110
Zinc	96.4	95.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A79263

Included Lab Sample IDs: 1931879

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	102	101	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A79283

Included Lab Sample IDs: 1931882

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Glyphosate	103	108	P/P	70 - 160

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A79298

Included Lab Sample IDs: 1931879

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	104	105	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A79302

Included Lab Sample IDs: 1931879

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.0	95.6	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A79305

Included Lab Sample IDs: 1931878

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	99.7	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 4500 F-C-97

Run ID: A79305

Included Lab Sample IDs: 1931878

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.5	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A79314

Included Lab Sample IDs: 1931879

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A79344

Included Lab Sample IDs: 1931879

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

Reference Method: EPA 8321B

Run ID: A79377

Included Lab Sample IDs: 1931882

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pyraclostrobin	97.3	95.8	P/P	60 - 150

Reference Method: USGS O-2060-01

Run ID: A79377

Included Lab Sample IDs: 1931882

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	96.7	99.6	P/P	50 - 150
Acetaminophen	97.6	105	P/P	60 - 150
Bentazon	118	115	P/P	50 - 150
Carbamazepine	106	106	P/P	60 - 150
Diuron	103	105	P/P	60 - 150
Fenuron	99.4	100	P/P	60 - 150
Fluridone	100	102	P/P	60 - 160
Imidacloprid	92.2	93.1	P/P	60 - 150
Linuron	104	103	P/P	60 - 150
MCP	99.8	97.8	P/P	50 - 150
Primidone	99.4	95.3	P/P	60 - 150
Triclopyr	98.9	107	P/P	50 - 150

Reference Method: EPA 8276

Run ID: A79446

Included Lab Sample IDs: 1931883

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	90.2		P	80 - 120
Toxaphene	103		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A79451
Included Lab Sample IDs: 1931882

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	81.6	90.4	P/P	60 - 150

Reference Method: EPA 8270D
Run ID: A79453
Included Lab Sample IDs: 1931883

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	98.2		P	80 - 120
Alpha-BHC	96.4		P	80 - 120
Alpha-Chlordane	97.2		P	80 - 120
Beta-BHC	97.2		P	80 - 120
Carbophenothion	87.4		P	80 - 120
Chlorothalonil	84.0		P	80 - 120
Cypermethrin	85.7		P	80 - 120
DDD-p,p'	102		P	80 - 120
DDE-p,p'	100		P	80 - 120
DDT-p,p'	105		P	80 - 120
Delta-BHC	94.1		P	80 - 120
Dicofol	143*		F	80 - 120
Dieldrin	99.9		P	80 - 120
Endosulfan I	94.7		P	80 - 120
Endosulfan II	92.4		P	80 - 120
Endosulfan Sulfate	95.8		P	80 - 120
Endrin	99.1		P	80 - 120
Endrin Aldehyde	95.6		P	80 - 120
Endrin Ketone	98.6		P	80 - 120
Gamma-BHC	101		P	80 - 120
Gamma-Chlordane	98.1		P	80 - 120
Heptachlor	95.9		P	80 - 120
Heptachlor Epoxide	99.0		P	80 - 120
Methoxychlor	99.9		P	80 - 120
Mirex	99.3		P	80 - 120
Permethrin	92.2		P	80 - 120
Trifluralin	116		P	80 - 120

Reference Method: EPA 8270D
Run ID: A79552
Included Lab Sample IDs: 1931884

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	100		P	80 - 120
Alachlor	100		P	80 - 120
Ametryn	95.4		P	80 - 120
Atrazine Desethyl	102		P	80 - 120
Azinphos Methyl	93.9		P	80 - 120
Bromacil	96.5		P	80 - 120
Butylate	105		P	80 - 120
Chlorpyrifos Ethyl	104		P	80 - 120
Chlorpyrifos Methyl	102		P	80 - 120
Cyanazine	109		P	80 - 120
Demeton	97.8		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D
 Run ID: A79552
 Included Lab Sample IDs: 1931884

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Diazinon	103		P	80 - 120
Disulfoton	96.0		P	80 - 120
EPTC	101		P	80 - 120
Ethion	98.7		P	80 - 120
Ethoprop	103		P	80 - 120
Fenamiphos	97.9		P	80 - 120
Fipronil	95.8		P	80 - 120
Fipronil Sulfide	99.5		P	80 - 120
Fipronil Sulfone	101		P	80 - 120
Fonofos	103		P	80 - 120
Hexazinone	99.0		P	80 - 120
Malathion	95.6		P	80 - 120
Metaxyl	97.5		P	80 - 120
Metolachlor	103		P	80 - 120
Metribuzin	95.1		P	80 - 120
Mevinphos	102		P	80 - 120
Molinate	104		P	80 - 120
Norflurazon	105		P	80 - 120
Parathion Ethyl	95.0		P	80 - 120
Parathion Methyl	96.8		P	80 - 120
Pendimethalin	92.4		P	80 - 120
Phorate	98.1		P	80 - 120
Prometon	103		P	80 - 120
Prometryn	98.5		P	80 - 120
Simazine	102		P	80 - 120
Terbufos	104		P	80 - 120
Terbutylazine	105		P	80 - 120

Reference Method: EPA 8270D
 Run ID: A79634
 Included Lab Sample IDs: 1931884

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Atrazine	97.2		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						7.64	
EPA 200.7 Rev. 4.4	Calcium	107	106	108	105			1.50
	Iron	105	104	107	106			0.878
	Magnesium	107	107	108	107			0.497
	Potassium	100	99.7	104	103			0.517
	Sodium	105	104	103	103			0.408

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			LCS	Precision	MS
								SMP	
EPA 200.7 Rev. 4.4	Zinc	99.6		95.2	98.8	99.3			0.510
EPA 200.8 Rev. 5.4	Arsenic	101		99.7	101	99.9			0.575
	Cadmium	98.6		100	102	101			0.339
	Chromium	94.7		96.8	101	100			0.230
	Copper	96.5		96.5	97.2	96.7			0.535
	Lead	95.9		96.7	98.6	98.1			0.523
	Nickel	99.4		97.1	98.4	98.3			0.130
	Silver	95.8		95.6	96.6	96.0			0.592
EPA 300.0 Rev. 2.1	Chloride	102		105	99.0			1.87	
	Sulfate	103		104	101			7.60	
EPA 350.1 Rev. 2.0	Ammonia-N	103		103	99.9				3.05
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	102		106	106				0.0329
EPA 353.2 Rev. 2.0	NO2NO3-N	106		104	104				0.332
EPA 365.1 Rev. 2.0	Total-P	98.1		96.7	96.0				0.524
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	104		96.1	97.3				0.790
EPA 8270D	Acetochlor	91.6	83.8	79.8	86.2		8.94		7.70
	Alachlor	91.2	82.2	78.1	74.6		10.5		4.62
	Aldrin	37.9	46.9	45.1	46.9		21.3		3.97
	Alpha-BHC	76.2	76.6	63.8	76.4		0.567		18.0
	Alpha-Chlordane	75.8	74.0	73.3	74.5		2.43		1.72
	Ametryn	89.5	75.2	78.8	81.7		17.4		3.59
	Atrazine	98.0	94.3	86.1	87.0		3.85		0.763
	Atrazine Desethyl	98.7	100	84.4	88.9		1.41		5.18
	Azinphos Methyl	116	116	86.0	88.5		0.265		2.88
	Beta-BHC	91.7	87.8	83.4	85.7		4.41		2.71
	Bromacil	90.6	87.2	94.6	71.8		3.75		27.4
	Butylate	50.3	52.3	27.0	19.6		4.00		31.8
	Carbophenothion	73.9	81.8	77.8	82.4		10.1		5.77
	Chlorothalonil	59.9	59.2	77.5	57.3		1.21		30.1
	Chlorpyrifos Ethyl	82.2	83.9	81.6	71.5		2.05		13.2
	Chlorpyrifos Methyl	85.8	95.0	87.2	83.9		10.2		3.86
	Cyanazine	176	172	119	105		2.69		12.4
	Cypermethrin	65.4	63.8	75.1	70.7		2.55		5.99
	DDD-p,p'	88.7	83.8	84.5	83.7		5.61		0.955
	DDE-p,p'	80.7	78.3	76.1	79.5		3.08		4.38
	DDT-p,p'	79.8	78.4	78.4	77.7		1.75		0.918
	Delta-BHC	87.9	84.4	93.3	88.6		4.11		5.24
	Demeton	74.3	93.3	74.4	58.4		22.6		24.0
	Diazinon	111	100	93.2	96.4		10.8		3.30
	Dicofol	45.7	41.5	41.4	42.0		9.55		1.54
	Dieldrin	81.4	78.7	75.4	78.7		3.38		4.21
	Disulfoton	86.5	109	101	88.7		23.4		12.8
	Endosulfan I	79.4	76.8	75.0	77.3		3.34		3.04
	Endosulfan II	86.9	78.9	75.6	73.9		9.66		2.26
	Endosulfan Sulfate	77.1	79.8	78.1	76.5		3.39		2.10
	Endrin	81.7	81.2	78.4	80.1		0.659		2.07
	Endrin Aldehyde	81.9	80.4	74.4	78.4		1.94		5.21
	Endrin Ketone	78.9	80.9	77.5	78.3		2.46		0.950
	EPTC	41.3	41.7	23.6	13.9		1.14		52.1
	Ethion	80.3	88.5	93.2	84.9		9.70		9.32
	Ethoprop	86.1	86.3	83.3	79.0		0.235		5.40
	Fenamiphos	78.8	90.9	110	93.7		14.2		16.1
	Fipronil	93.9	92.2	83.4	74.6		1.84		11.1
	Fipronil Sulfide	76.2	82.5	82.1	70.1		7.96		15.8

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270D	Fipronil Sulfone	67.9	76.8	62.8	51.2	12.3	20.2
	Fonofos	83.1	94.7	87.8	76.1	13.0	14.3
	Gamma-BHC	88.4	88.3	76.0	84.7	0.119	10.8
	Gamma-Chlordane	74.9	73.3	72.9	73.8	2.21	1.33
	Heptachlor	65.7	67.8	67.5	70.1	3.03	3.76
	Heptachlor Epoxide	78.1	76.3	74.9	75.6	2.41	0.990
	Hexazinone	89.5	86.6	83.9	83.8	3.34	0.111
	Malathion	84.2	88.4	92.0	78.8	4.93	15.5
	Metalaxyl	94.1	88.0	80.0	86.8	6.79	8.15
	Methoxychlor	85.5	85.7	85.4	88.7	0.281	3.81
	Metolachlor	87.2	84.4	84.3	79.6	3.23	5.16
	Metribuzin	200	171	124	119	16.0	3.82
	Mevinphos	69.9	81.1	84.1	76.1	14.8	10.0
	Mirex	68.7	70.6	70.1	74.1	2.72	5.52
	Molinate	55.8	48.1	38.7	29.9	14.9	25.7
	Norflurazon	92.1	91.4	81.8	74.4	0.703	9.44
	Parathion Ethyl	92.0	90.2	83.1	82.7	2.00	0.482
	Parathion Methyl	98.1	94.8	87.0	89.9	3.42	3.28
	Pendimethalin	91.2	82.6	76.2	78.1	9.88	2.47
	Permethrin	74.6	75.9	78.8	88.0	1.69	11.0
	Phorate	82.8	104	80.8	71.7	22.5	11.9
	Prometon	89.4	84.9	80.7	82.2	5.15	1.86
	Prometryn	80.3	83.3	85.2	87.5	3.60	2.63
	Simazine	98.8	93.6	93.5	103	5.36	9.41
	Terbufos	87.8	100	91.8	84.2	13.4	8.62
	Terbuthylazine	92.5	91.1	84.9	86.8	1.49	2.22
	Trifluralin	131	136	130	133	3.40	2.37
EPA 8276	Chlordane	88.6		84.0	91.7		8.71
	Toxaphene	95.9		94.4	101		7.23
EPA 8321B	Glyphosate	117		100	104		3.10
	Pyraclostrobin	85.0		98.6	93.5		5.37
	Sucralose	92.6		42.3	42.5		0.283
SM 2120 B	Color (true)					0.417	
SM 2320 B-97	Total Alkalinity	102				0.258	
SM 2540 C-97	TDS					5.00	
SM 4500 F-C-97	Fluoride	98.2		96.0	100		4.04
SM 5310 B-00	Organic Carbon	97.8		95.2	95.4		0.118
USGS O-2060-01	2,4-D	74.3		64.1	66.9		3.28
	Acetaminophen	145		82.5	90.5		9.20
	Bentazon	40.2		22.3	29.7		11.2
	Carbamazepine	117		82.1	84.7		2.99
	Diuron	103		57.4	62.9		6.74
	Fenuron	112		82.6	83.1		0.652
	Fluridone	110		66.1	58.8		11.1
	Imidacloprid	102					0.905
	Linuron	107		80.7	85.4		5.66
	MCPP	75.7		50.0	51.8		3.10
	Primidone	109		91.9	91.9		0.0440
	Triclopyr	72.5		50.6	52.6		3.91

Reference Method Descriptions

Method / DoH Cert #

Description

Associated Samples

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1931878
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1931891
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1931891
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1931878
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1931878
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1931879
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1931879
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1931879
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1931879
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1931880
EPA 8270D / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	1931883
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides (ultra trace level) in water matrices by GC/MS/MS	1931884
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	1931883
EPA 8321B / E31780	Analysis of sucralose in water matrices by HPLC/MS/MS	1931882
EPA 8321B / E31780	Glyphosate in water matrices by HPLC/MS/MS	1931882
EPA 8321B / E31780	Pyraclostrobin in water matrices by HPLC/MS/MS	1931882
SM 2120 B / E31780	True Color measured at 450 nm	1931878
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1931878
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1931878
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1931878
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1931878
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1931879
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1931882
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1931882

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	09/27/2017			09/27/2017 17:33	Tanya Welborn	1931878
EPA 200.7 Rev. 4.4	09/27/2017	09/28/2017	Elliott D. Healy	09/29/2017	Betina Topolski	1931891
EPA 200.8 Rev. 5.4	09/27/2017	09/28/2017	Elliott D. Healy	09/29/2017	Nadine Brooks	1931891
EPA 300.0 Rev. 2.1	09/27/2017			09/28/2017	Julia Storbeck	1931878
EPA 350.1 Rev. 2.0	09/27/2017			10/04/2017	Sofia Elnemr	1931879
EPA 351.2 Rev. 2.0	09/27/2017	10/02/2017	Sofia Elnemr	10/03/2017	Joseph Suarez	1931879
EPA 353.2 Rev. 2.0	09/27/2017			10/03/2017	Beverly Y. Sanders	1931879
EPA 365.1 Rev. 2.0	09/27/2017	09/29/2017	Sima Feizi	10/02/2017	Lipi Saha	1931879
EPA 365.1 Rev. 2.0 dissolved	09/27/2017			09/27/2017 14:40	Megan Treadwell	1931880
EPA 8270D	09/27/2017	09/27/2017	John Kaba	10/06/2017	Irina Carbone	1931884
	09/27/2017	09/27/2017	John Kaba	10/13/2017	Irina Carbone	1931884
	09/27/2017	10/02/2017	John Kaba	10/06/2017	Vandana T. Nagar	1931883
EPA 8276	09/27/2017	10/02/2017	John Kaba	10/07/2017	John P. Burgos	1931883
EPA 8321B	09/27/2017	10/02/2017	Hoor Shaik	10/09/2017	Juyoung Kim	1931882
	09/27/2017	10/02/2017	Julie Michelle Frank	10/02/2017	Julie Michelle Frank	1931882
	09/27/2017	10/03/2017	Hoor Shaik	10/05/2017	Julie Michelle Frank	1931882
SM 2120 B	09/27/2017			09/27/2017 15:53	DeAsia Armster	1931878
SM 2320 B-97	09/27/2017			10/03/2017	Dale L. Simmons	1931878
SM 2540 C-97	09/27/2017			09/29/2017	Yijie Li	1931878
SM 2540 D-97	09/27/2017			09/29/2017	Yijie Li	1931878
SM 4500 F-C-97	09/27/2017			10/03/2017	Dale L. Simmons	1931878
SM 5310 B-00	09/27/2017			10/02/2017	Ping Hua	1931879
USGS O-2060-01	09/27/2017	10/02/2017	Hoor Shaik	10/06/2017	Julie Michelle Frank	1931882