

Chemical Analysis Report

SO-DIST-2017-12-12-01

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

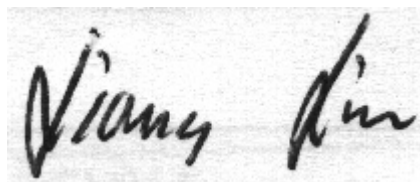
Event Description: **Walker Creek**
Request ID: **RQ-2017-12-11-43**
Customer: **SO-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FLDEP South District Office
2295 Victoria Ave. Suite 364
Fort Myers, FL 33901-3381
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Certified by: Liang Lin, Environmental Administrator

Date Certified: 02-JAN-2018 15:18

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: Walker Creek at 32nd Street

Collection Date/Time: 12/11/2017 09:45

Field ID: G2SD121117-1

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1952956	EPA 180.1 Rev. 2.0	Turbidity	7.2	A	NTU	P336843	
	EPA 300.0 Rev. 2.1	Chloride	47		mg Cl/L	P336971	
		Sulfate	56		mg SO4/L	P336973	
	SM 2120 B	Color (true)	330		PCU	P336833	
	SM 2320 B-97	Total Alkalinity	66		mg CaCO3/L	P337081	
	SM 2540 C-97	TDS	294		mg/L	P337109	
	SM 2540 D-97	TSS	3	I	mg/L	P337205	
	SM 4500 F-C-97	Fluoride	0.39		mg F/L	P337084	
1952957	EPA 350.1 Rev. 2.0	Ammonia-N	0.038		mg N/L	P337422	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P337140	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.052		mg N/L	P337283	
	EPA 365.1 Rev. 2.0	Total-P	0.18		mg P/L	P337055	
	SM 5310 B-00	Organic Carbon	30		mg C/L	P336943	
1952958	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.14		mg P/L	P336863	
1952966	EPA 200.7 Rev. 4.4	Calcium	38.5		mg/L	P336859	
		Iron	2.08E+03		ug/L	P336859	
		Magnesium	11.0		mg/L	P336859	
		Potassium	1.3		mg/L	P336859	
		Sodium	31.9		mg/L	P336859	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P336859	
		Arsenic	0.59		ug/L	P336859	
		Cadmium	0.020	U	ug/L	P336859	
		Chromium	1.8		ug/L	P336859	
		Copper	0.37	I	ug/L	P336859	
		Lead	0.066	I	ug/L	P336859	
		Nickel	0.53	I	ug/L	P336859	
		Silver	0.010	U	ug/L	P336859	

Ref. Method and Comment:

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

EPA 365.1 Rev. 2.0 dissolved: O-Phosphate-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

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

Sample Location: Walker Creek at 32nd Street

Collection Date/Time: 12/11/2017 09:45

Field ID: G2SD121117-1

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1952960	EPA 8321B	Glyphosate**	0.10	U	ug/L	P336811	
		Pyraclostrobin**	0.0020	UJ	ug/L	P336846	MS, RPD
		Sucralose**	0.010	U	ug/L	P336557	
	USGS O-2060-01	2,4-D	0.0020	U	ug/L	P336965	
		Diuron	8.0E-04	U	ug/L	P336965	
		Fenuron	0.0080	U	ug/L	P336965	
		Imidacloprid	8.0E-04	U	ug/L	P336965	MS

Field ID: G2SD121117-1

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1952960	USGS O-2060-01	Bentazon	8.0E-04	U	ug/L	P336965	
		Linuron	0.0040	U	ug/L	P336965	
		Acetaminophen**	0.0080	U	ug/L	P336965	
		MCPD	0.0020	U	ug/L	P336965	
		Carbamazepine**	4.0E-04	U	ug/L	P336965	
		Triclopyr**	0.0040	U	ug/L	P336965	
		Primidone**	0.0040	U	ug/L	P336965	
		Fluridone**	4.0E-04	U	ug/L	P336965	
1952964	EPA 8270D	Aldrin	5.2	U	ng/L	P336851	
		Alpha-BHC	2.6	U	ng/L	P336851	
		Beta-BHC	5.2	U	ng/L	P336851	
		Delta-BHC	5.2	U	ng/L	P336851	
		Gamma-BHC	5.2	U	ng/L	P336851	
		Carbophenothion	5.2	U	ng/L	P336851	
		Chlorothalonil	2.6	U	ng/L	P336851	
		Cypermethrin	26	U	ng/L	P336851	
		DDD-p,p'	3.9	U	ng/L	P336851	
		DDE-p,p'	3.9	U	ng/L	P336851	
		DDT-p,p'	3.9	U	ng/L	P336851	
		Dieldrin	5.2	U	ng/L	P336851	
		Endosulfan I	5.2	U	ng/L	P336851	
		Endosulfan II	5.2	U	ng/L	P336851	
		Endosulfan Sulfate	2.6	U	ng/L	P336851	
		Endrin	2.6	U	ng/L	P336851	
		Endrin Aldehyde	2.6	U	ng/L	P336851	
		Heptachlor	2.0	U	ng/L	P336851	
		Heptachlor Epoxide	2.6	U	ng/L	P336851	
		Methoxychlor	5.2	U	ng/L	P336851	
		Mirex	2.6	U	ng/L	P336851	
		Permethrin	13	U	ng/L	P336851	
		Trifluralin	1.3	U	ng/L	P336851	
		Alpha-Chlordane	1.3	U	ng/L	P336851	
		Gamma-Chlordane	1.3	U	ng/L	P336851	
		Endrin Ketone	2.6	U	ng/L	P336851	
		Dicofol	39	U	ng/L	P336851	MS
	EPA 8276	Chlordane**	3.3	U	ng/L	P336851	
		Toxaphene**	16	UJ	ng/L	P336851	LCS, RPD
1952965	EPA 8270D	Alachlor	0.25	U	ng/L	P336847	
		Ametryn	0.33	U	ng/L	P336847	
		Atrazine	0.29	I	ng/L	P336847	
		Atrazine Desethyl	1.5	U	ng/L	P336847	
		Azinphos Methyl	2.3	U	ng/L	P336847	
		Bromacil	2.2		ng/L	P336847	
		Butylate	0.41	U	ng/L	P336847	
		Chlorpyrifos Ethyl	0.25	U	ng/L	P336847	

Field ID: G2SD121117-1

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1952965	EPA 8270D	Chlorpyrifos Methyl	0.10	U	ng/L	P336847	
		Demeton	2.0	U	ng/L	P336847	RPD
		Diazinon	0.13	U	ng/L	P336847	
		Disulfoton	0.51	U	ng/L	P336847	
		EPTC	1.3	U	ng/L	P336847	
		Ethion	0.15	U	ng/L	P336847	
		Ethoprop	0.10	U	ng/L	P336847	
		Fenamiphos	0.25	U	ng/L	P336847	
		Fipronil	0.25	U	ng/L	P336847	
		Fipronil Sulfide	0.15	U	ng/L	P336847	
		Fipronil Sulfone	0.15	U	ng/L	P336847	
		Hexazinone	4.6	J	ng/L	P336847	
		Malathion	0.36	U	ng/L	P336847	
		Metribuzin	0.20	UJ	ng/L	P336847	LCS, MS, RPD
		Mevinphos	0.51	U	ng/L	P336847	RPD
		Molinate	0.31	U	ng/L	P336847	
		Norflurazon	0.51	U	ng/L	P336847	
		Pendimethalin	1.0	U	ng/L	P336847	
		Phorate	0.25	U	ng/L	P336847	
		Prometon	0.92	U	ng/L	P336847	
		Prometryn	0.20	U	ng/L	P336847	
		Simazine	0.51	U	ng/L	P336847	
		Terbufos	0.10	U	ng/L	P336847	
		Terbuthylazine	0.43	U	ng/L	P336847	
		Fonofos	0.20	U	ng/L	P336847	
		Metalaxyl	0.25	U	ng/L	P336847	
		Metolachlor	0.25	U	ng/L	P336847	
		Acetochlor	0.25	U	ng/L	P336847	
		Cyanazine	0.51	UJ	ng/L	P336847	RPD
		Parathion Ethyl	0.25	U	ng/L	P336847	
		Parathion Methyl	0.25	U	ng/L	P336847	

Ref. Method and Comment:

EPA 8321B: Refer to the narrative for an explanation of QC Codes.

EPA 8276: Refer to the narrative for an explanation of QC Codes.

EPA 8270D: Refer to the narrative for an explanation of QC Codes. Estimation for Hexazinone due to internal standard recovery outside control limits.

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P336843

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P336859

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
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P336859

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: P336971

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P336973

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P337422

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P337140

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P337283

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P337055

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P336863

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

Reference Method: EPA 8270D
Batch ID: P336847

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
Metaxyl	0.25	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
Terbuthylazine	0.42	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270D
Batch ID: P336851

Component	Result	Code	Units
Aldrin	4.0	U	ng/L
Alpha-BHC	2.0	U	ng/L
Alpha-Chlordane	1.0	U	ng/L
Beta-BHC	4.0	U	ng/L
Carbophenothion	4.0	U	ng/L
Chlorothalonil	2.0	U	ng/L
Cypermethrin	20	U	ng/L
DDD-p,p'	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: P336851

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

Reference Method: EPA 8321B
Batch ID: P336557

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P336811

Component	Result	Code	Units
Glyphosate	0.10	U	ug/L

Reference Method: EPA 8321B
Batch ID: P336846

Component	Result	Code	Units
Pyraclostrobin	0.0020	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: SM 2120 B
Batch ID: P336833

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P337081

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

Reference Method: SM 2540 C-97
Batch ID: P337109

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P337205

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P337084

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P336943

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

Reference Method: USGS O-2060-01
Batch ID: P336965

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
MCP	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: P336859

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	104		P	85 - 115
Iron	105		P	85 - 115
Magnesium	108		P	85 - 115
Potassium	101		P	85 - 115
Sodium	106		P	85 - 115
Zinc	102		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P336859

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	89.0		P	85 - 115
Cadmium	90.5		P	85 - 115
Chromium	87.0		P	85 - 115
Copper	86.9		P	85 - 115
Lead	88.4		P	85 - 115
Nickel	88.0		P	85 - 115
Silver	91.8		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P336971

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P336973

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	97.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P337422

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P337140

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	98.0		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P337283

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P337055

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P336863

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

Reference Method: EPA 8270D

Batch ID: P336847

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	91.2	96.6	P/P	78 - 118
Alachlor	91.2	97.6	P/P	77 - 119
Ametryn	87.1	93.6	P/P	61 - 136
Atrazine	93.9	95.4	P/P	73 - 120
Atrazine Desethyl	88.5	67.2	P/P	16 - 122
Azinphos Methyl	116	95.6	P/P	69 - 186
Bromacil	79.0	68.4	P/P	40 - 125
Butylate	59.8	71.5	P/P	32 - 87.0
Chlorpyrifos Ethyl	93.0	95.6	P/P	53 - 110
Chlorpyrifos Methyl	93.4	90.0	P/P	31 - 119
Cyanazine	172	83.9	P/P	36 - 224
Demeton	76.1	80.3	P/P	39 - 122
Diazinon	89.2	88.7	P/P	75 - 119
Disulfoton	86.0	85.9	P/P	42 - 139
EPTC	57.6	72.2	P/P	33 - 96.0
Ethion	85.2	97.0	P/P	63 - 127
Ethoprop	97.9	92.0	P/P	65 - 107
Fenamiphos	94.2	95.2	P/P	64 - 137
Fipronil	90.7	97.1	P/P	60 - 126
Fipronil Sulfide	90.0	91.9	P/P	58 - 124
Fipronil Sulfone	84.3	92.0	P/P	57 - 126
Fonofos	91.1	84.8	P/P	65 - 111
Hexazinone	88.7	95.2	P/P	46 - 151
Malathion	91.6	97.6	P/P	68 - 132
Metaxyl	93.0	96.2	P/P	51 - 132
Metolachlor	90.9	101	P/P	78 - 119
Metribuzin	163	127	F/P	58 - 148
Mevinphos	81.9	75.9	P/P	34 - 128
Molinate	62.7	75.0	P/P	44 - 101
Norflurazon	83.0	94.6	P/P	63 - 129
Parathion Ethyl	91.4	89.7	P/P	80 - 109
Parathion Methyl	94.6	91.0	P/P	74 - 125
Pendimethalin	99.3	101	P/P	48 - 134
Phorate	79.9	79.7	P/P	52 - 119
Prometon	81.4	89.6	P/P	69 - 124
Prometryn	88.1	96.6	P/P	66 - 124
Simazine	103	92.6	P/P	61 - 134
Terbufos	91.9	86.4	P/P	58 - 115
Terbutylazine	90.5	93.5	P/P	77 - 113

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P336851

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	72.6	71.2	P/P	26 - 88.0
Alpha-BHC	101	97.3	P/P	63 - 114
Alpha-Chlordane	100	103	P/P	56 - 117
Beta-BHC	125	119	P/P	57 - 138
Carbophenothion	89.5	83.9	P/P	36 - 148
Chlorothalonil	97.4	74.1	P/P	26 - 173
Cypermethrin	109	108	P/P	42 - 159
DDD-p,p'	123	121	P/P	62 - 126
DDE-p,p'	105	106	P/P	53 - 115
DDT-p,p'	105	105	P/P	54 - 117
Delta-BHC	150	135	P/P	68 - 158
Dicofol	105	110	P/P	25 - 114
Dieldrin	104	111	P/P	59 - 126
Endosulfan I	106	106	P/P	62 - 138
Endosulfan II	135	134	P/P	61 - 150
Endosulfan Sulfate	112	111	P/P	63 - 132
Endrin	113	112	P/P	49 - 148
Endrin Aldehyde	121	137	P/P	50 - 144
Endrin Ketone	110	108	P/P	66 - 122
Gamma-BHC	107	110	P/P	60 - 137
Gamma-Chlordane	97.8	101	P/P	54 - 113
Heptachlor	72.6	83.7	P/P	43 - 104
Heptachlor Epoxide	103	104	P/P	64 - 118
Methoxychlor	110	119	P/P	63 - 129
Mirex	86.5	82.7	P/P	40 - 96.0
Permethrin	99.0	94.2	P/P	51 - 123
Trifluralin	81.3	89.2	P/P	35 - 187

Reference Method: EPA 8276
Batch ID: P336851

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	111	93.2	P/P	48 - 121
Toxaphene	111	436	P/F	43 - 135

Reference Method: EPA 8321B
Batch ID: P336557

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	129		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P336811

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Glyphosate	120		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P336846

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Pyraclostrobin	139		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-97
Batch ID: P337081

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P337084

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.9		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P336943

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.6		P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P336965

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	95.0		P	40 - 150
Acetaminophen	95.8		P	30 - 150
Bentazon	98.2		P	30 - 150
Carbamazepine	106		P	40 - 150
Diuron	88.5		P	40 - 150
Fenuron	106		P	40 - 150
Fluridone	105		P	40 - 150
Imidacloprid	102		P	40 - 160
Linuron	93.5		P	40 - 150
MCP	91.5		P	40 - 150
Primidone	107		P	40 - 150
Triclopyr	91.9		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P336859

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1951871	Iron	104	107	P/P	80 - 120
1951871	Potassium	100	104	P/P	80 - 120
1951871	Sodium	101	106	P/P	80 - 120
1951871	Zinc	98.1	100	P/P	80 - 120
1953283	Iron	110		P	80 - 120
1953283	Zinc	101		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P336859

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1951871	Arsenic	89.2	102	P/P	80 - 120
1951871	Cadmium	91.9	105	P/P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P336859

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1951871	Chromium	85.9	96.0	P/P	80 - 120
1951871	Copper	83.1	92.3	P/P	80 - 120
1951871	Lead	88.1	97.9	P/P	80 - 120
1951871	Nickel	85.9	95.4	P/P	80 - 120
1951871	Silver	91.1	101	P/P	80 - 120
1953283	Arsenic	98.6		P	80 - 120
1953283	Cadmium	103		P	80 - 120
1953283	Chromium	98.6		P	80 - 120
1953283	Copper	93.3		P	80 - 120
1953283	Lead	98.4		P	80 - 120
1953283	Nickel	95.5		P	80 - 120
1953283	Silver	101		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P336971

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1953111	Chloride	98.6		P	90 - 110
1953223	Chloride	95.1		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P336973

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1953111	Sulfate	97.3		P	90 - 110
1953223	Sulfate	92.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P337422

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1952944	Ammonia-N	104	108	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P337140

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1952972	Kjeldahl Nitrogen	99.8	98.9	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P337283

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1952913	NO2NO3-N	106	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P337055

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1952944	Total-P	97.5	99.0	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P336847

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1953143	Acetochlor	95.6	99.8	P/P	74 - 123
1953143	Alachlor	97.3	101	P/P	73 - 124
1953143	Ametryn	97.6	95.4	P/P	56 - 149
1953143	Atrazine	90.2	98.9	P/P	73 - 124
1953143	Atrazine Desethyl	66.5	87.0	P/P	12 - 103
1953143	Azinphos Methyl	97.6	120	P/P	60 - 202
1953143	Bromacil	94.3	91.9	P/P	42 - 133
1953143	Butylate	54.6	68.3	P/P	10 - 85.0
1953143	Chlorpyrifos Ethyl	94.4	101	P/P	53 - 113
1953143	Chlorpyrifos Methyl	86.0	103	P/P	40 - 115
1953143	Cyanazine	93.9	181	P/P	22 - 210
1953143	Demeton	65.3	89.7	P/P	17 - 149
1953143	Diazinon	82.3	94.3	P/P	72 - 124
1953143	Disulfoton	73.9	94.8	P/P	43 - 139
1953143	EPTC	53.5	66.0	P/P	10 - 86.0
1953143	Ethion	96.7	101	P/P	65 - 131
1953143	Ethoprop	77.6	105	P/P	59 - 110
1953143	Fenamiphos	94.6	108	P/P	57 - 138
1953143	Fipronil	101	99.3	P/P	40 - 130
1953143	Fipronil Sulfide	94.9	98.2	P/P	36 - 128
1953143	Fipronil Sulfone	95.5	91.3	P/P	16 - 145
1953143	Fonofos	75.0	100	P/P	60 - 112
1953143	Hexazinone	98.0	92.9	P/P	69 - 142
1953143	Malathion	97.5	97.8	P/P	68 - 132
1953143	Metalaxyl	88.9	101	P/P	66 - 118
1953143	Metolachlor	101	100	P/P	71 - 124
1953143	Metribuzin	102	173	P/F	61 - 140
1953143	Mevinphos	55.0	83.5	P/P	38 - 130
1953143	Molinate	59.3	64.0	P/P	23 - 99.0
1953143	Norflurazon	99.0	91.3	P/P	39 - 139
1953143	Parathion Ethyl	89.0	94.1	P/P	75 - 111
1953143	Parathion Methyl	87.0	99.3	P/P	64 - 130
1953143	Pendimethalin	94.8	105	P/P	26 - 173
1953143	Phorate	66.2	88.2	P/P	43 - 127
1953143	Prometon	89.7	91.8	P/P	50 - 144
1953143	Prometryn	98.2	99.2	P/P	69 - 126
1953143	Simazine	98.1	108	P/P	51 - 152
1953143	Terbufos	76.8	99.5	P/P	54 - 125
1953143	Terbutylazine	95.4	98.2	P/P	76 - 113

Reference Method: EPA 8270D
Batch ID: P336851

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1953138	Aldrin	84.8	79.4	P/P	22 - 97.0
1953138	Alpha-BHC	101	99.8	P/P	43 - 132
1953138	Alpha-Chlordane	105	105	P/P	36 - 126
1953138	Beta-BHC	112	118	P/P	41 - 150
1953138	Carbophenothion	114	112	P/P	13 - 196
1953138	Chlorothalonil	111	88.6	P/P	10 - 266
1953138	Cypermethrin	115	105	P/P	37 - 161
1953138	DDD-p,p'	123	123	P/P	44 - 131

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
 Batch ID: P336851

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1953138	DDE-p,p'	108	111	P/P	32 - 127
1953138	DDT-p,p'	103	96.6	P/P	45 - 116
1953138	Delta-BHC	136	142	P/P	50 - 201
1953138	Dicofol	116	125	F/F	10 - 100
1953138	Dieldrin	108	108	P/P	39 - 142
1953138	Endosulfan I	111	108	P/P	51 - 139
1953138	Endosulfan II	133	127	P/P	49 - 155
1953138	Endosulfan Sulfate	114	106	P/P	54 - 136
1953138	Endrin	111	112	P/P	38 - 141
1953138	Endrin Aldehyde	103	111	P/P	14 - 152
1953138	Endrin Ketone	115	111	P/P	60 - 128
1953138	Gamma-BHC	103	103	P/P	48 - 157
1953138	Gamma-Chlordane	103	102	P/P	35 - 123
1953138	Heptachlor	89.2	78.5	P/P	25 - 112
1953138	Heptachlor Epoxide	107	103	P/P	48 - 125
1953138	Methoxychlor	112	108	P/P	52 - 127
1953138	Mirex	91.6	85.5	P/P	25 - 108
1953138	Permethrin	105	98.8	P/P	46 - 133
1953138	Trifluralin	94.3	90.7	P/P	29 - 254

Reference Method: EPA 8276
 Batch ID: P336851

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1953325	Chlordane	78.0	80.2	P/P	44 - 134
1953325	Toxaphene	102	109	P/P	36 - 147

Reference Method: EPA 8321B
 Batch ID: P336557

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1951718	Sucralose	97.3	100	P/P	40 - 150

Reference Method: EPA 8321B
 Batch ID: P336811

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1952960	Glyphosate	118	119	P/P	40 - 150

Reference Method: EPA 8321B
 Batch ID: P336846

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1952960	Pyraclostrobin	140	235	P/F	40 - 150

Reference Method: SM 4500 F-C-97
 Batch ID: P337084

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1953013	Fluoride	97.4	98.2	P/P	91 - 105

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 5310 B-00
Batch ID: P336943

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1952944	Organic Carbon	92.9	94.4	P/P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P336965

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1952991	Acetaminophen	125	134	P/P	30 - 150
1952991	Carbamazepine	97.3	105	P/P	40 - 150
1952991	Diuron	85.6	89.9	P/P	40 - 150
1952991	Fenuron	79.6	88.1	P/P	40 - 150
1952991	Fluridone	89.3	97.1	P/P	40 - 150
1952991	Imidacloprid	192	198	F/F	40 - 160
1952991	Linuron	98.4	111	P/P	40 - 150
1952991	Primidone	92.0	110	P/P	40 - 150
1953148	2,4-D	91.5	98.8	P/P	40 - 150
1953148	Bentazon	47.1	49.6	P/P	30 - 150
1953148	MCP	75.6	80.1	P/P	40 - 150
1953148	Triclopyr	75.0	83.6	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P336843

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1952956	Turbidity	0.978	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P336859

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1951871	Calcium	1.89	Spike	P	0 - 20
1951871	Iron	2.57	Spike	P	0 - 20
1951871	Magnesium	2.67	Spike	P	0 - 20
1951871	Potassium	2.85	Spike	P	0 - 20
1951871	Sodium	2.53	Spike	P	0 - 20
1951871	Zinc	2.05	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P336859

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1951871	Arsenic	13.0	Spike	P	0 - 20
1951871	Cadmium	13.2	Spike	P	0 - 20
1951871	Chromium	10.5	Spike	P	0 - 20
1951871	Copper	10.5	Spike	P	0 - 20
1951871	Lead	10.5	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P336859

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1951871	Nickel	10.5	Spike	P	0 - 20
1951871	Silver	10.3	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P336971

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1953223	Chloride	15.5	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P336973

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1953223	Sulfate	15.3	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P337422

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1952944	Ammonia-N	3.58	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P337140

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1952972	Kjeldahl Nitrogen	0.583	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P337283

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1952913	NO2NO3-N	0.445	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P337055

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1952944	Total-P	1.38	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P336863

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1952958	O-Phosphate-P	0.334	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P336847

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1953143	Acetochlor	4.33	Spike	P	0 - 30
1953143	Alachlor	3.72	Spike	P	0 - 30
1953143	Ametryn	2.23	Spike	P	0 - 30
1953143	Atrazine	7.17	Spike	P	0 - 30
1953143	Atrazine Desethyl	26.7	Spike	P	0 - 30
1953143	Azinphos Methyl	21.0	Spike	P	0 - 30
1953143	Bromacil	2.51	Spike	P	0 - 30
1953143	Butylate	22.2	Spike	P	0 - 30
1953143	Chlorpyrifos Ethyl	6.89	Spike	P	0 - 30
1953143	Chlorpyrifos Methyl	17.5	Spike	P	0 - 30
1953143	Cyanazine	63.3	Spike	F	0 - 30
1953143	Demeton	31.6	Spike	F	0 - 30
1953143	Diazinon	13.6	Spike	P	0 - 30
1953143	Disulfoton	24.7	Spike	P	0 - 30
1953143	EPTC	21.0	Spike	P	0 - 30
1953143	Ethion	4.44	Spike	P	0 - 30
1953143	Ethoprop	29.6	Spike	P	0 - 30
1953143	Fenamiphos	13.5	Spike	P	0 - 30
1953143	Fipronil	1.42	Spike	P	0 - 30
1953143	Fipronil Sulfide	3.40	Spike	P	0 - 30
1953143	Fipronil Sulfone	4.48	Spike	P	0 - 30
1953143	Fonofos	28.7	Spike	P	0 - 30
1953143	Hexazinone	4.53	Spike	P	0 - 30
1953143	Malathion	0.290	Spike	P	0 - 30
1953143	Metalaxyl	12.9	Spike	P	0 - 30
1953143	Metolachlor	0.167	Spike	P	0 - 30
1953143	Metribuzin	50.0	Spike	F	0 - 30
1953143	Mevinphos	41.2	Spike	F	0 - 30
1953143	Molinate	7.66	Spike	P	0 - 30
1953143	Norflurazon	7.42	Spike	P	0 - 30
1953143	Parathion Ethyl	5.48	Spike	P	0 - 30
1953143	Parathion Methyl	13.2	Spike	P	0 - 30
1953143	Pendimethalin	10.3	Spike	P	0 - 30
1953143	Phorate	28.6	Spike	P	0 - 30
1953143	Prometon	2.35	Spike	P	0 - 30
1953143	Prometryn	1.01	Spike	P	0 - 30
1953143	Simazine	9.93	Spike	P	0 - 30
1953143	Terbufos	25.7	Spike	P	0 - 30
1953143	Terbutylazine	2.92	Spike	P	0 - 30
LFB	Acetochlor	5.81	LCS	P	0 - 30
LFB	Alachlor	6.78	LCS	P	0 - 30
LFB	Ametryn	7.25	LCS	P	0 - 30
LFB	Atrazine	1.59	LCS	P	0 - 30
LFB	Atrazine Desethyl	27.3	LCS	P	0 - 30
LFB	Azinphos Methyl	18.9	LCS	P	0 - 30
LFB	Bromacil	14.4	LCS	P	0 - 30
LFB	Butylate	17.9	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	2.74	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	3.72	LCS	P	0 - 30
LFB	Cyanazine	68.7	LCS	F	0 - 30
LFB	Demeton	5.40	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P336847

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Diazinon	0.481	LCS	P	0 - 30
LFB	Disulfoton	0.209	LCS	P	0 - 30
LFB	EPTC	22.5	LCS	P	0 - 30
LFB	Ethion	13.0	LCS	P	0 - 30
LFB	Ethoprop	6.20	LCS	P	0 - 30
LFB	Fenamiphos	0.993	LCS	P	0 - 30
LFB	Fipronil	6.82	LCS	P	0 - 30
LFB	Fipronil Sulfide	2.07	LCS	P	0 - 30
LFB	Fipronil Sulfone	8.70	LCS	P	0 - 30
LFB	Fonofos	7.16	LCS	P	0 - 30
LFB	Hexazinone	7.07	LCS	P	0 - 30
LFB	Malathion	6.30	LCS	P	0 - 30
LFB	Metaxyl	3.43	LCS	P	0 - 30
LFB	Metolachlor	10.3	LCS	P	0 - 30
LFB	Metribuzin	25.3	LCS	P	0 - 30
LFB	Mevinphos	7.60	LCS	P	0 - 30
LFB	Molinate	17.8	LCS	P	0 - 30
LFB	Norflurazon	13.1	LCS	P	0 - 30
LFB	Parathion Ethyl	1.82	LCS	P	0 - 30
LFB	Parathion Methyl	3.85	LCS	P	0 - 30
LFB	Pendimethalin	1.82	LCS	P	0 - 30
LFB	Phorate	0.164	LCS	P	0 - 30
LFB	Prometon	9.59	LCS	P	0 - 30
LFB	Prometryn	9.15	LCS	P	0 - 30
LFB	Simazine	10.4	LCS	P	0 - 30
LFB	Terbufos	6.12	LCS	P	0 - 30
LFB	Terbutylazine	3.23	LCS	P	0 - 30

Reference Method: EPA 8270D
Batch ID: P336851

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1953138	Aldrin	6.59	Spike	P	0 - 30
1953138	Alpha-BHC	1.36	Spike	P	0 - 30
1953138	Alpha-Chlordane	0.581	Spike	P	0 - 30
1953138	Beta-BHC	5.31	Spike	P	0 - 30
1953138	Carbophenothion	1.64	Spike	P	0 - 30
1953138	Chlorothalonil	22.6	Spike	P	0 - 30
1953138	Cypermethrin	8.94	Spike	P	0 - 30
1953138	DDD-p,p'	0.445	Spike	P	0 - 30
1953138	DDE-p,p'	2.73	Spike	P	0 - 30
1953138	DDT-p,p'	6.29	Spike	P	0 - 30
1953138	Delta-BHC	4.33	Spike	P	0 - 30
1953138	Dicofol	7.00	Spike	P	0 - 30
1953138	Dieldrin	0.188	Spike	P	0 - 30
1953138	Endosulfan I	2.38	Spike	P	0 - 30
1953138	Endosulfan II	4.21	Spike	P	0 - 30
1953138	Endosulfan Sulfate	7.20	Spike	P	0 - 30
1953138	Endrin	1.26	Spike	P	0 - 30
1953138	Endrin Aldehyde	7.48	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P336851

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1953138	Endrin Ketone	4.06	Spike	P	0 - 30
1953138	Gamma-BHC	0.0508	Spike	P	0 - 30
1953138	Gamma-Chlordane	1.06	Spike	P	0 - 30
1953138	Heptachlor	12.8	Spike	P	0 - 30
1953138	Heptachlor Epoxide	4.39	Spike	P	0 - 30
1953138	Methoxychlor	4.06	Spike	P	0 - 30
1953138	Mirex	6.98	Spike	P	0 - 30
1953138	Permethrin	6.08	Spike	P	0 - 30
1953138	Trifluralin	3.90	Spike	P	0 - 30
LFB	Aldrin	2.00	LCS	P	0 - 30
LFB	Alpha-BHC	3.90	LCS	P	0 - 30
LFB	Alpha-Chlordane	2.87	LCS	P	0 - 30
LFB	Beta-BHC	5.36	LCS	P	0 - 30
LFB	Carbophenothion	6.45	LCS	P	0 - 30
LFB	Chlorothalonil	27.2	LCS	P	0 - 30
LFB	Cypermethrin	1.41	LCS	P	0 - 30
LFB	DDD-p,p'	1.44	LCS	P	0 - 30
LFB	DDE-p,p'	1.09	LCS	P	0 - 30
LFB	DDT-p,p'	0.132	LCS	P	0 - 30
LFB	Delta-BHC	10.8	LCS	P	0 - 30
LFB	Dicofol	4.11	LCS	P	0 - 30
LFB	Dieldrin	6.14	LCS	P	0 - 30
LFB	Endosulfan I	0.844	LCS	P	0 - 30
LFB	Endosulfan II	1.27	LCS	P	0 - 30
LFB	Endosulfan Sulfate	0.237	LCS	P	0 - 30
LFB	Endrin	0.763	LCS	P	0 - 30
LFB	Endrin Aldehyde	12.4	LCS	P	0 - 30
LFB	Endrin Ketone	1.80	LCS	P	0 - 30
LFB	Gamma-BHC	2.49	LCS	P	0 - 30
LFB	Gamma-Chlordane	3.04	LCS	P	0 - 30
LFB	Heptachlor	14.2	LCS	P	0 - 30
LFB	Heptachlor Epoxide	0.749	LCS	P	0 - 30
LFB	Methoxychlor	7.70	LCS	P	0 - 30
LFB	Mirex	4.57	LCS	P	0 - 30
LFB	Permethrin	5.04	LCS	P	0 - 30
LFB	Trifluralin	9.27	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P336851

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1953325	Chlordane	2.45	Spike	P	0 - 30
1953325	Toxaphene	6.85	Spike	P	0 - 30
LFB	Chlordane	17.8	LCS	P	0 - 30
LFB	Toxaphene	119	LCS	F	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P336557

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1951718	Sucralose	3.09	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P336811

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1952960	Glyphosate	0.464	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P336846

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1952960	Pyraclostrobin	50.3	Spike	F	0 - 30

Reference Method: SM 2120 B
Batch ID: P336833

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1952970	Color (true)	3.11	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P337081

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1953013	Total Alkalinity	0.221	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P337109

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1952943	TDS	4.28	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P337084

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1953013	Fluoride	0.473	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P336943

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1952944	Organic Carbon	1.55	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: USGS O-2060-01
Batch ID: P336965

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1952991	Acetaminophen	7.40	Spike	P	0 - 30
1952991	Carbamazepine	7.18	Spike	P	0 - 30
1952991	Diuron	4.92	Spike	P	0 - 30
1952991	Fenuron	10.1	Spike	P	0 - 30
1952991	Fluridone	8.38	Spike	P	0 - 30
1952991	Imidacloprid	3.20	Spike	P	0 - 30
1952991	Linuron	11.8	Spike	P	0 - 30
1952991	Primidone	18.0	Spike	P	0 - 30
1953148	2,4-D	7.64	Spike	P	0 - 30
1953148	Bentazon	5.11	Spike	P	0 - 30
1953148	MCPP	5.80	Spike	P	0 - 30
1953148	Triclopyr	10.9	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: 1952960
Field Sample ID: G2SD121117-1

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	124	P	30 - 160
EPA 8321B	Acetaminophen-d4	124	P	30 - 160
EPA 8321B	Carbamazepine-d10	94.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	94.2	P	30 - 160
EPA 8321B	Diuron-d6	84.6	P	30 - 160
EPA 8321B	Diuron-d6	102	P	30 - 160
EPA 8321B	Diuron-d6	84.6	P	30 - 160
EPA 8321B	Diuron-d6	102	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	100	P	40 - 160
EPA 8321B	Primidone-d5	84.2	P	30 - 160
EPA 8321B	Primidone-d5	84.2	P	30 - 160
EPA 8321B	Sucralose-d6	69.6	P	40 - 160
EPA 8321B	Sucralose-d6	69.6	P	40 - 160
USGS O-2060-01	2,4-D-d3	86.9	P	30 - 160
USGS O-2060-01	Acetaminophen-d4	124	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	94.2	P	30 - 160
USGS O-2060-01	Diuron-d6	84.6	P	30 - 160
USGS O-2060-01	Diuron-d6	102	P	30 - 160
USGS O-2060-01	Primidone-d5	84.2	P	30 - 160
USGS O-2060-01	Sucralose-d6	69.6	P	40 - 160

Lab Sample ID: 1952964
Field Sample ID: G2SD121117-1

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	55.0	P	39 - 118
EPA 8270D	Tetrachloro-m-xylene	52.3	P	32 - 103

Quality Assurance Report Surrogates

Lab Sample ID: 1952964

Field Sample ID: G2SD121117-1

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8276	Decachlorobiphenyl	49.4	P	31 - 100

Lab Sample ID: 1952965

Field Sample ID: G2SD121117-1

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	69.5	P	53 - 135
EPA 8270D	Simazine-d10	83.3	P	71 - 126

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B

Run ID: A80851

Included Lab Sample IDs: 1952956

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	95.8	97.2	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A80852

Included Lab Sample IDs: 1952956

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A80859

Included Lab Sample IDs: 1952958

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A80872

Included Lab Sample IDs: 1952956

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	100	P/P	90 - 110
Sulfate	97.1	95.2	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A80887

Included Lab Sample IDs: 1952957

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.0	96.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A80910

Included Lab Sample IDs: 1952966

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	97.2	95.9	P/P	90 - 110
Cadmium	99.2	97.8	P/P	90 - 110
Chromium	96.9	95.9	P/P	90 - 110
Copper	97.7	96.3	P/P	90 - 110
Lead	97.1	96.8	P/P	90 - 110
Nickel	97.4	95.7	P/P	90 - 110
Silver	99.2	98.0	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A80912

Included Lab Sample IDs: 1952966

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	97.8	105	P/P	90 - 110
Iron	98.8	106	P/P	90 - 110
Magnesium	98.6	105	P/P	90 - 110
Potassium	96.4	104	P/P	90 - 110
Sodium	97.1	104	P/P	90 - 110
Zinc	103	105	P/P	90 - 110

Reference Method: EPA 8270D

Run ID: A80929

Included Lab Sample IDs: 1952965

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	96.5		P	80 - 120
Alachlor	97.8		P	80 - 120
Ametryn	98.4		P	80 - 120
Atrazine	90.9		P	80 - 120
Atrazine Desethyl	93.3		P	80 - 120
Azinphos Methyl	90.4		P	80 - 120
Bromacil	99.5		P	80 - 120
Butylate	95.3		P	80 - 120
Chlorpyrifos Ethyl	98.3		P	80 - 120
Chlorpyrifos Methyl	97.1		P	80 - 120
Cyanazine	96.4		P	80 - 120
Demeton	97.3		P	80 - 120
Diazinon	92.3		P	80 - 120
Disulfoton	98.1		P	80 - 120
EPTC	97.2		P	80 - 120
Ethion	97.8		P	80 - 120
Ethoprop	103		P	80 - 120
Fenamiphos	95.5		P	80 - 120
Fipronil	94.6		P	80 - 120
Fipronil Sulfide	97.0		P	80 - 120
Fipronil Sulfone	96.9		P	80 - 120
Fonofos	97.5		P	80 - 120
Hexazinone	92.9		P	80 - 120
Malathion	96.7		P	80 - 120
Metalaxyl	99.2		P	80 - 120
Metolachlor	102		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D
Run ID: A80929
Included Lab Sample IDs: 1952965

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Metribuzin	85.9		P	80 - 120
Mevinphos	101		P	80 - 120
Molinate	96.6		P	80 - 120
Norflurazon	96.7		P	80 - 120
Parathion Ethyl	93.4		P	80 - 120
Parathion Methyl	93.7		P	80 - 120
Pendimethalin	100		P	80 - 120
Phorate	96.5		P	80 - 120
Prometon	98.1		P	80 - 120
Prometryn	98.7		P	80 - 120
Simazine	94.0		P	80 - 120
Terbufos	95.8		P	80 - 120
Terbuthylazine	97.3		P	80 - 120

Reference Method: SM 2320 B-97
Run ID: A80955
Included Lab Sample IDs: 1952956

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.1	101	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A80955
Included Lab Sample IDs: 1952956

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.1	99.5	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A80965
Included Lab Sample IDs: 1952960

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Glyphosate	78.3	80.3	P/P	60 - 150
Pyraclostrobin	83.2	84.2	P/P	60 - 150

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A80966
Included Lab Sample IDs: 1952957

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

Reference Method: USGS O-2060-01
Run ID: A80991
Included Lab Sample IDs: 1952960

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	101	108	P/P	50 - 150
Acetaminophen	104	105	P/P	60 - 150
Bentazon	112	115	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: USGS O-2060-01

Run ID: A80991

Included Lab Sample IDs: 1952960

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Carbamazepine	106	110	P/P	60 - 150
Diuron	99.8	102	P/P	60 - 150
Fenuron	103	107	P/P	60 - 150
Fluridone	107	112	P/P	60 - 160
Imidacloprid	100	102	P/P	60 - 150
Linuron	107	110	P/P	60 - 150
MCPP	106	102	P/P	50 - 150
Primidone	110	99.5	P/P	60 - 150
Triclopyr	108	100	P/P	50 - 150

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A81019

Included Lab Sample IDs: 1952957

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	92.7	91.9	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A81041

Included Lab Sample IDs: 1952957

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

Reference Method: EPA 8321B

Run ID: A81055

Included Lab Sample IDs: 1952960

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	86.6	105	P/P	60 - 150

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A81097

Included Lab Sample IDs: 1952957

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

Reference Method: EPA 8270D

Run ID: A81113

Included Lab Sample IDs: 1952964

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	100		P	80 - 120
Alpha-BHC	103		P	80 - 120
Alpha-Chlordane	97.9		P	80 - 120
Beta-BHC	94.2		P	80 - 120
Carbophenothion	89.0		P	80 - 120
Chlorothalonil	94.9		P	80 - 120
Cypermethrin	87.5		P	80 - 120
DDD-p,p'	97.0		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D
Run ID: A81113
Included Lab Sample IDs: 1952964

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
DDE-p,p'	101		P	80 - 120
DDT-p,p'	106		P	80 - 120
Delta-BHC	96.5		P	80 - 120
Dicofol	94.2		P	80 - 120
Dieldrin	100		P	80 - 120
Endosulfan I	99.8		P	80 - 120
Endosulfan II	103		P	80 - 120
Endosulfan Sulfate	91.4		P	80 - 120
Endrin	96.9		P	80 - 120
Endrin Aldehyde	89.9		P	80 - 120
Endrin Ketone	96.5		P	80 - 120
Gamma-BHC	102		P	80 - 120
Gamma-Chlordane	97.4		P	80 - 120
Heptachlor	95.1		P	80 - 120
Heptachlor Epoxide	98.2		P	80 - 120
Methoxychlor	108		P	80 - 120
Mirex	100		P	80 - 120
Permethrin	92.9		P	80 - 120
Trifluralin	99.2		P	80 - 120

Reference Method: EPA 8276
Run ID: A81119
Included Lab Sample IDs: 1952964

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	101		P	80 - 120
Toxaphene	105		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			Precision SMP	MS
			LCS				
EPA 180.1 Rev. 2.0	Turbidity					0.978	
EPA 200.7 Rev. 4.4	Calcium	104					1.89
	Iron	105	104	107	110		2.57
	Magnesium	108					2.67
	Potassium	101	100	104			2.85
	Sodium	106	101	106			2.53
	Zinc	102	98.1	100	101		2.05
EPA 200.8 Rev. 5.4	Arsenic	89.0	89.2	102	98.6		13.0
	Cadmium	90.5	91.9	105	103		13.2
	Chromium	87.0	85.9	96.0	98.6		10.5
	Copper	86.9	83.1	92.3	93.3		10.5
	Lead	88.4	88.1	97.9	98.4		10.5
	Nickel	88.0	85.9	95.4	95.5		10.5

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			Precision		
							LCS	SMP	MS
EPA 200.8 Rev. 5.4	Silver	91.8		91.1	101	101			10.3
EPA 300.0 Rev. 2.1	Chloride	100		95.1	98.6		15.5		
	Sulfate	97.8		92.0	97.3		15.3		
EPA 350.1 Rev. 2.0	Ammonia-N	110		104	108				3.58
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	98.0		99.8	98.9				0.583
EPA 353.2 Rev. 2.0	NO2NO3-N	104		106	106				0.445
EPA 365.1 Rev. 2.0	Total-P	98.7		97.5	99.0				1.38
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.9							0.334
EPA 8270D	Acetochlor	91.2	96.6	95.6	99.8	5.81			4.33
	Alachlor	97.6	91.2	97.3	101	6.78			3.72
	Aldrin	72.6	71.2	84.8	79.4	2.00			6.59
	Alpha-BHC	101	97.3	101	99.8	3.90			1.36
	Alpha-Chlordane	100	103	105	105	2.87			0.581
	Ametryn	93.6	87.1	97.6	95.4	7.25			2.23
	Atrazine	93.9	95.4	90.2	98.9	1.59			7.17
	Atrazine Desethyl	88.5	67.2	66.5	87.0	27.3			26.7
	Azinphos Methyl	116	95.6	97.6	120	18.9			21.0
	Beta-BHC	125	119	112	118	5.36			5.31
	Bromacil	79.0	68.4	94.3	91.9	14.4			2.51
	Butylate	59.8	71.5	54.6	68.3	17.9			22.2
	Carbophenothion	89.5	83.9	114	112	6.45			1.64
	Chlorothalonil	97.4	74.1	111	88.6	27.2			22.6
	Chlorpyrifos Ethyl	93.0	95.6	94.4	101	2.74			6.89
	Chlorpyrifos Methyl	93.4	90.0	86.0	103	3.72			17.5
	Cyanazine	172	83.9	93.9	181	68.7			63.3
	Cypermethrin	109	108	115	105	1.41			8.94
	DDD-p,p'	123	121	123	123	1.44			0.445
	DDE-p,p'	105	106	108	111	1.09			2.73
	DDT-p,p'	105	105	103	96.6	0.132			6.29
	Delta-BHC	150	135	136	142	10.8			4.33
	Demeton	80.3	76.1	65.3	89.7	5.40			31.6
	Diazinon	88.7	89.2	82.3	94.3	0.481			13.6
	Dicofol	105	110	116	125	4.11			7.00
	Dieldrin	104	111	108	108	6.14			0.188
	Disulfoton	85.9	86.0	73.9	94.8	0.209			24.7
	Endosulfan I	106	106	111	108	0.844			2.38
	Endosulfan II	135	134	133	127	1.27			4.21
	Endosulfan Sulfate	112	111	114	106	0.237			7.20
	Endrin	113	112	111	112	0.763			1.26
	Endrin Aldehyde	121	137	103	111	12.4			7.48
	Endrin Ketone	110	108	115	111	1.80			4.06
	EPTC	72.2	57.6	53.5	66.0	22.5			21.0
	Ethion	97.0	85.2	96.7	101	13.0			4.44
	Ethoprop	92.0	97.9	77.6	105	6.20			29.6
	Fenamiphos	95.2	94.2	94.6	108	0.993			13.5
	Fipronil	97.1	90.7	101	99.3	6.82			1.42
	Fipronil Sulfide	91.9	90.0	94.9	98.2	2.07			3.40
	Fipronil Sulfone	92.0	84.3	95.5	91.3	8.70			4.48
	Fonofos	91.1	84.8	75.0	100	7.16			28.7
	Gamma-BHC	107	110	103	103	2.49			0.0508
	Gamma-Chlordane	97.8	101	103	102	3.04			1.06
	Heptachlor	72.6	83.7	89.2	78.5	14.2			12.8
	Heptachlor Epoxide	103	104	107	103	0.749			4.39
	Hexazinone	95.2	88.7	98.0	92.9	7.07			4.53

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270D	Malathion	97.6	91.6	97.5	97.8	6.30	0.290
	Metalaxyl	93.0	96.2	88.9	101	3.43	12.9
	Methoxychlor	110	119	112	108	7.70	4.06
	Metolachlor	90.9	101	101	100	10.3	0.167
	Metribuzin	127	163	102	173	25.3	50.0
	Mevinphos	75.9	81.9	55.0	83.5	7.60	41.2
	Mirex	86.5	82.7	91.6	85.5	4.57	6.98
	Molinate	75.0	62.7	59.3	64.0	17.8	7.66
	Norflurazon	94.6	83.0	99.0	91.3	13.1	7.42
	Parathion Ethyl	91.4	89.7	89.0	94.1	1.82	5.48
	Parathion Methyl	94.6	91.0	87.0	99.3	3.85	13.2
	Pendimethalin	101	99.3	94.8	105	1.82	10.3
	Permethrin	99.0	94.2	105	98.8	5.04	6.08
	Phorate	79.9	79.7	66.2	88.2	0.164	28.6
	Prometon	81.4	89.6	89.7	91.8	9.59	2.35
	Prometryn	88.1	96.6	98.2	99.2	9.15	1.01
	Simazine	103	92.6	98.1	108	10.4	9.93
	Terbufos	91.9	86.4	76.8	99.5	6.12	25.7
	Terbutylazine	90.5	93.5	95.4	98.2	3.23	2.92
	Trifluralin	81.3	89.2	94.3	90.7	9.27	3.90
EPA 8276	Chlordane	111	93.2	78.0	80.2	17.8	2.45
	Toxaphene	111	436	102	109	119	6.85
EPA 8321B	Glyphosate	120		118	119		0.464
	Pyraclostrobin	139		140	235		50.3
	Sucralose	129		97.3	100		3.09
SM 2120 B	Color (true)					3.11	
SM 2320 B-97	Total Alkalinity	101				0.221	
SM 2540 C-97	TDS					4.28	
SM 4500 F-C-97	Fluoride	95.9		97.4	98.2		0.473
SM 5310 B-00	Organic Carbon	94.6		92.9	94.4		1.55
USGS O-2060-01	2,4-D	95.0		91.5	98.8		7.64
	Acetaminophen	95.8		125	134		7.40
	Bentazon	98.2		47.1	49.6		5.11
	Carbamazepine	106		97.3	105		7.18
	Diuron	88.5		85.6	89.9		4.92
	Fenuron	106		79.6	88.1		10.1
	Fluridone	105		89.3	97.1		8.38
	Imidacloprid	102		192	198		3.20
	Linuron	93.5		98.4	111		11.8
	MCPP	91.5		75.6	80.1		5.80
	Primidone	107		92.0	110		18.0
	Triclopyr	91.9		75.0	83.6		10.9

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1952956
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1952966
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1952966
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1952956

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1952956
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1952957
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1952957
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1952957
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1952957
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1952958
EPA 8270D / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	1952964
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides (ultra trace level) in water matrices by GC/MS/MS	1952965
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	1952964
EPA 8321B / E31780	Analysis of sucralose in water matrices by HPLC/MS/MS	1952960
EPA 8321B / E31780	Glyphosate in water matrices by HPLC/MS/MS	1952960
EPA 8321B / E31780	Pyraclostrobin in water matrices by HPLC/MS/MS	1952960
SM 2120 B / E31780	True Color measured at 450 nm	1952956
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1952956
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1952956
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1952956
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1952956
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1952957
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1952960
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1952960

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	12/12/2017			12/12/2017 16:03	DeAsia Armster	1952956
EPA 200.7 Rev. 4.4	12/12/2017	12/13/2017	Allison Taylor	12/14/2017	Betina Topolski	1952966
EPA 200.8 Rev. 5.4	12/12/2017	12/13/2017	Allison Taylor	12/14/2017	Nadine Brooks	1952966
EPA 300.0 Rev. 2.1	12/12/2017			12/13/2017	Julia Storbeck	1952956
EPA 350.1 Rev. 2.0	12/12/2017			12/21/2017	Sofia Elnemr	1952957
EPA 351.2 Rev. 2.0	12/12/2017	12/18/2017	Adrian Shelby	12/19/2017	Joseph Suarez	1952957
EPA 353.2 Rev. 2.0	12/12/2017			12/20/2017	Lauren Bottorf	1952957
EPA 365.1 Rev. 2.0	12/12/2017	12/15/2017	Sima Feizi	12/18/2017	Lipi Saha	1952957
EPA 365.1 Rev. 2.0 dissolved	12/12/2017			12/12/2017 15:30	Megan Treadwell	1952958
EPA 8270D	12/12/2017	12/13/2017	Fe-Val Siddell	12/14/2017	Vandana T. Nagar	1952965
	12/12/2017	12/13/2017	Rasheda Ghaffari	12/19/2017	Goutam Palui	1952964
EPA 8276	12/12/2017	12/13/2017	Rasheda Ghaffari	12/19/2017	John P. Burgos	1952964
EPA 8321B	12/12/2017	12/15/2017	Julie Michelle Frank	12/15/2017	Juyoung Kim	1952960
	12/12/2017	12/20/2017	Juyoung Kim	12/20/2017	Juyoung Kim	1952960
SM 2120 B	12/12/2017			12/12/2017 15:34	Tanya Welborn	1952956
SM 2320 B-97	12/12/2017			12/16/2017	Dale L. Simmons	1952956
SM 2540 C-97	12/12/2017			12/13/2017	Yijie Li	1952956
SM 2540 D-97	12/12/2017			12/13/2017	Yijie Li	1952956
SM 4500 F-C-97	12/12/2017			12/16/2017	Dale L. Simmons	1952956
SM 5310 B-00	12/12/2017			12/13/2017	Megan Treadwell	1952957
USGS O-2060-01	12/12/2017	12/15/2017	Hoor Shaik	12/16/2017	Julie Michelle Frank	1952960